

**Intertextual Readings
of the Nyāyabhūṣaṇa
on Buddhist Anti-Realism**

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Preface

This interdisciplinary study is the result of my personally coinciding with the convergence of two forces at Leipzig University during the period of 2017–2019: the DFG-funded project “Digital Critical Edition of Nyāyabhāṣya 3–4”, directed by Eli Franco, and the working group around Gregory Crane under the auspices of the Alexander Humboldt Chair for Digital Humanities. For my two-odd years in Leipzig (too short!), I drew inspiration in equal measure from both of these workgroups, and I was lucky to have a great deal of freedom to develop a research project that felt authentically like my own. I was also fortunate to be able to complete the project closer to family, in Brooklyn, NY, over the period of 2019–2022.

The hybrid nature of this work will surely seem unusual to many Sanskritists, but it was really the only way forward for me, given my particular interests, and I think it is also part of a steadily growing trend. Even for such a traditional field as philology, technology now facilitates additional components of work which cannot be presented in the linear format of an article or a monograph but which nevertheless need to be made available to the scholarly community. Personally, I find such digital philology work, in corpus building, computational linguistics, information retrieval, prosopography, and so on, to be the most rewarding way to use my own research time, especially when done with an eye toward scale and machine-actionability. I'm sure I'm not alone in this, and I predict that subsequent generations of students will continue to feel this to an even greater degree. It will behoove the humanities to be proactive in harnessing these new energies.

A few specific acknowledgments are in order for my own journey. For my start in Sanskrit language and philosophy, I especially thank Antonia Ruppel, Larry McCrea, Parimal Patil, and innumerable friends and colleagues in Harvard's various Sanskritically-inclined departments, especially South Asian Studies, Classics, Linguistics, Religion, and Divinity. For completion of my philological training at Leipzig University, I'm very grateful to Eli Franco, Philipp Maas, and Karin Preisendanz, and to the Deutsche Forschungsgemeinschaft (DFG) for its support of me as a PhD research associate. Numerous other colleagues at both the Indology Department and the Chair for Digital Humanities in Leipzig were also of great help. Thanks especially to Sadananda Das, Greg Crane, Thomas Köntges, and my Leipzig PhD colleagues Yuki, Youngsan, and Hiroko. I'm also grateful for numerous virtual sessions spent reading parts of the text together with Nilanjan Das, Smriti Khanal, and Alex Watson. The most direct help on the dissertation document itself came from my primary advisor, Eli Franco, who spent many hours helping me improve numerous sections of Part I, and from Oliver Hellwig, who offered comments on Part II. Above all, for always being there to help me through, I'm grateful to my lovely and brilliant wife, Saeed Paliwal, and to my parents.

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Abbreviations

Terms and Symbols

p., pp.	page(s)
I., II.	line(s)
##,##,##	physical sections (e.g., volume, page, and line)
##.##.##	logical sections (e.g., book, chapter, verse)
k., kk.	<i>kārikā</i> (s)
n.	foot- or endnote
f.	folio
ff.	and the following (e.g., pages or lines)
cp.	compare
e.g.	<i>exempli gratia</i> = for example
i.e.	<i>id est</i> = that is
ibid.	<i>ibidem</i> = same source as before
<i>em.</i>	emendation = unattested reading based directly on witness(es)
<i>cj.</i>	conjecture = unattested reading against all witnesses
<i>om.</i>	omission (relative to edited text)
<i>rep.</i>	repetition (occurring contiguously unless stated otherwise)
<i>tr.</i>	transposition i.e. metathesis (occurring contiguously unless stated otherwise)
(ac)	<i>ante correctionem</i> = before scribal correction
(pc)	<i>post correctionem</i> = after scribal correction
(vl)	<i>varia lectio</i> = variant reading found in duplicated portion of text
(≈)	approximately (interpretation of imperfect witness)
=	is virtually identical to (with only insignificant textual changes)
≈	is nearly the same as (with definite minor changes)
~	is roughly the same as (with major changes)
÷	is topically related to (with no particular phrases in common)
@	on which term or idea refer to

Nyāyabhūṣaṇa Witnesses

E, E _y	printed edition, Yogīndrānanda 1968
P1	Patan ms. (used for E _y)
P2	Pune ms. (sibling of P1)
P	P1 + P2 taken together as a group
V	Varanasi ms. (in Śāradā script)
MSS	all three extant manuscripts (P1 P2 V)

Main Sanskrit Editions

ĀP	Ālambanaparīkṣā of Dignāga, N. Aiyaswami Shastri 1942
AvNir	Avayaviniṛakaraṇa of Paṇḍita Aśoka, Thakur 1974
BĀU	Bṛhadāraṇyakopaniṣad, Limaye & Vadekar 1958
ChU	Chāndogyopaniṣad, Limaye & Vadekar 1958
DhPr	Dharmottarapradīpa of Durvekamiśra, Malvania 1955
GK	Gaṇakārikā (trad. Bhāsarvajña/unknown), Dalal 1920
HB	Hetubindu of Dharmakīrti, Steinkellner 2016
JŚNA	Nibandhāvali of Jñānaśrīmitra, Thakur 1959a
NBh	Nyāyabhāṣya of Vātsyāyana, Thakur 1997b
NBhū	Nyāyabhūṣaṇa of Bhāsarvajña, Yogīndrānanda 1968
NyKand	Nyāyakandalī of Śrīdhara, Jetly & Parikh 1991
NM	Nyāyamañjarī of Jayantabhaṭṭa, Varadācārya (Mysore) 1969-83
NS	Nyāyasūtra of Gautama, (in NBh, Thakur 1997b)
NSā	Nyāyasāra of Bhāsarvajña, (in NBhū, Yogīndrānanda 1968)
NV	Nyāyavārtika of Uddyotakara, Thakur 1997a
PDhS	Padārthadharmasamgraha of Praśastapāda, V.P. Dvivedi 1895/1984
PS 1	Pramāṇasamuccaya of Dignāga, ch. 1, Steinkellner 2005
PSṬ	PS-Ṭīkā Viśālāmalavatī of Jinendrabuddhi, vol. 1, Steinkellner et al. 2005
PV	Pramāṇavārtika of Dharmakīrti, Sankrtyayana 1938a (chs: 1 Svārthānumāna, 2 Pramāṇasiddhi, 3 Pratyakṣa, 4 Parārthānumāna) ¹
PVA	Pramāṇavārtikālaṃkāra of Prajñākaragupta, Sankrtyayana 1953 ² (chs: 1 Pramāṇasiddhi, 2 Pratyakṣa, 3 Parārthānumāna)
PVin 1, 2	Pramāṇaviniścaya of Dharmakīrti, chs. 1–2, Steinkellner 2007
PVin 3	—, ch. 3, Hugon & Tomabechi 2011
PVinṬ	Pramāṇaviniścayaṭīkā of Dharmottara, Hugon 2020
PVSV	Pramāṇavārtikasvopajñavṛtti of Dharmakīrti, Gnoli 1960
PVV	Pramāṇavārtikavṛtti of Manorathanandin, Sankrtyayana 1938–1940
RT	Ratnaṭīkā (trad. Bhāsarvajña/unknown), Dalal 1920
TUS	Tattvopaplavasimha of Jayarāsi, chs. 1–6 out of 14, Franco 1987b —, chs. 7–14, Sanghavi & Parikh 1940
VibhrV	Vibhramaviveka of Maṇḍanamiśra, Schmithausen 1965
Vimś	Vimśikā of Vasubandhu, Silk 2018
VimśV	Vimśikāvṛtti of Vasubandhu, Lévi 1925
VyV	Vyomavatī of Vyomaśiva, Gaurinath Shastri 1984

¹ Material from the PV Svārthānumāna chapter is generally referred to here by its occurrence in the PVSV (Gnoli 1960). For a summary of the arguments in favor of this placement of the Svārthānumāna chapter as the first chapter, including the internal evidence that the future tense is used to refer ahead to subsequent chapters, see Kellner (2010, 162n4).

² For similar reasons to those also articulated by Kellner (*ibid.*), I adhere less to the edition of Sankrtyayana and more to my own “Pramāṇa NLP” version of PV, on which cp. §6.1, especially footnote 697.

Introduction

A Multi-Disciplinary Project in Intertextual Reading

This study focuses on a sizable passage from the *Nyāyabhūṣaṇa*, an encyclopedic work of Sanskrit philosophy written by the author Bhāsarvajña of mid-tenth-century Kashmir. Primarily, the study relies on traditional philological methods, including extensive use of manuscripts and close reading of argumentative structure. In addition, however, and in direct support of this close intertextual reading, the study also develops and utilizes new computational resources for “distant reading”, especially semi-automatic search for parallel passages in a corpus of kindred philosophical (*pramāṇa*) texts.

Practical note: In order to make best use of the project's numerous digital aspects, it is recommended to use the electronic (PDF) version of this document, available online at https://github.com/tylergneill/nbhu_materials.

Main Object of Study: *Nyāyabhūṣaṇa* 104–154

The *Nyāyabhūṣaṇa* (“Ornament on Reasoning”), or sometimes just *Bhūṣaṇa* (“Ornament”), is rightly classified as a Nyāya-Vaiśeṣika work, since it spends much of its time elaborating and defending orthodox brahmanical views from that perspective, especially in response to certain Buddhist opponents like Dharmakīrti and Prajñākaragupta. These orthodox views include thoroughgoing ontological realism (e.g., of substances, properties, and universals); acceptance of scriptural testimony (especially the Vedas) as authoritative means of valid knowledge (*pramāṇa*); and programmatically central belief in such entities as the eternal Self (*ātman*) and God (*īśvara*).

However, the *Nyāyabhūṣaṇa* is at the same time also well known to be rather heterodox, frequently taking liberties with Nyāya and Vaiśeṣika theories relative to the older traditions attested primarily in the form of Gautama, Vātsyāyana, and Uddyotakara, and Kaṇāda and Praśastapāda, respectively. Notable examples of this tendency include major renovations to the Vaiśeṣika taxonomy of ontological categories (*padārthas*) and a reorientation of Nyāya away from its own set of logico-soteriological categories (*padārthas*) and toward the means of valid knowledge (*pramāṇa*) so central to the Dignāga-Dharmakīrti text tradition. These means of knowledge are reduced in the NBhū to only three in number, and more attention is given to perception (*pratyakṣa*) and its relation to the factor of conceptual or determinative construction (*vikalpa*), also central to the Buddhist project. These and other innovations earned the followers of Bhāsarvajña the nickname *Ekadeśins* (“Fractionalists”). And yet, some of these innovations, including for example the reduced Vaiśeṣika categories, were eventually incorporated into the later, “*navya*” part of the Nyāya tradition which includes such authors as Udayana,³ Gaṅgeśa, and Raghunātha Śiromaṇi. In this particular way, Bhāsarvajña is a pivot for the history of Nyāya-Vaiśeṣika perhaps even more so than his also extant near-contemporaries Jayantabhaṭṭa, Vyomaśiva, Vācaspatimiśra, and Śrīdhara.

³ Udayana (c. 975), writing not long after Bhāsarvajña himself, is sometimes classified as “proto-*Navya*”, thus reserving the proper title first for Gaṅgeśa (c. 1325) and his distinctively different use of terminology.

These writers of course also demonstrated original thought in their respective elaborations of those text traditions, especially in response to Mīmāṃsā and Buddhism, but they seem to have been considerably less radical in how they did so. In other words, Bhāsarvajña quickly explodes the too-simple distinction of “old” versus “new” to which the history of Nyāya is often reduced. This makes reading him a worthwhile challenge.

Fortunately, since 1968, his full thoughts have been available to the academic community in the form of Swami Yogīndrānanda's 1968 *editio princeps* of the Nyāyabhūṣaṇa. However, plenty remains to be done in understanding this complex work. For starters, Yogīndrānanda's edition, while generally excellent, contains numerous misleading mistakes and does not give much insight into its single manuscript source. Moreover, the scholarly community has been slow to translate and study the work at length, partly due to the imperfect state of the text, and partly due to the inherent difficulty of the conceptual content.

The present study, with improved access to manuscript materials and with the help of several new computational methods and tools, takes steps to address this relative neglect of a unique and important monument of Sanskrit philosophy. It namely chooses a particular passage of the NBhū, pp. 104–154 of the 1968 edition (50 out of a total of 598 pages), which has so far received very little attention in modern English-language scholarship. This passage namely corresponds to what was left out of L.V. Joshi's otherwise complete English translation of the Pratyakṣa Pariccheda, and also to most of S. Yamakami's own dissertation work in Japanese.⁴

Full of dense technical polemic, this 50-page passage covers a remarkable amount of ground. Its red thread, as already summarized by others,⁵ is the disputed ontological status of the macroscopic or “gross” (*sthūla*), compositely whole (*avayavin*) objects such as pots and cloths that we normal people generally believe ourselves to perceive with our everyday senses (*ayogipratyakṣa*). According to Yogācāra Buddhists, however, these complex objects are not real and external as they seem to be, but rather are better understood as essentially cognitive and conceptual in nature. In turn, the phenomenon of variegated color (*citrarūpa*), such as that of a colorful garment or a butterfly,⁶ serves as a central metaphor for exploring the idea of real complexity and its alleged impossibility.

However, this same discussion also touches on several other profound topics, especially including the nature of error (*bhrānti, viparyaya*), correspondence (*samvāda*), intentionality and cognitive content (*viṣaya, ākāra*), inferential reasoning (*anumāna*), and, also importantly, albeit implicitly, to what extent one can speak of multiple truths or levels of reality, especially the “conventional” (*saṃvṛti*) vs. “ultimate” (*paramārtha*) distinction made by Buddhists (and later also Vedāntins). Bhāsarvajña's Buddhist opponent, a composite

⁴ Due to certain aspects of its presentation, Joshi's work is not commonly recognized as a translation, but it does in fact constitute one in most respects. Meanwhile, the treatment in Yamakami (1999), Japanese-language medium aside, leaves enough to be desired to warrant a second attempt. See §1.2.2 below.

⁵ See the terse comments by Matilal (1977) and Joshi (1986, 611ff.), and more significantly Yamakami (1999, 2001).

⁶ See the “*citrapatamga*” in PV 3.200, on which see also e.g. Dunne (2004, 398) and the discussion by Tomlinson (2019, 251ff.)

mostly of Dharmakīrti and Prajñākaragupta, champions just such a meta-philosophical distinction, locating in “conventional” reality all multiplicity and difference such as experienced in everyday life and reductively characterizing this as unreal, and meanwhile privileging over this a counterintuitive “ultimate” reality, which is simple, non-dual, ineffable, and associated with liberation. Against this, Bhāsarvajña himself shows a clear preference (if only indirectly) for just a single level of reality. This single reality is fundamentally pluralistic, consisting of many truly existing entities, each of which possesses objectively real properties, and it admits of description in a way continuous with and generally trusting of everyday experience.

As I will discuss later on, neither of these two opposing views may be very convincing to us in the end, but in fact, this is not necessary for reading such a debate to be rewarding. Instead, insofar as such sophisticated epistemological and methodological principles are on display for consideration, the effort we expend in following such dialectical interplay can train us to more easily discern such principles at work in any other knowledge system, whether ancient or modern, and whether systematic or less formal. I also think that any coherent consideration of such ideas as multiple truths, non-dualism, and liberation, insofar as it is well-grounded in close understanding of original texts in their own terms, can add something useful to the contemporary cultural conversation concerning South Asian religions and knowledge systems.

Project Outline

In Chapter 1, I give background information on the author, the work, and some key concepts required for understanding the philosophical debate at hand.

In Chapter 2, I present the critically re-edited text of NBhū 104–154. This edition is based first and foremost on the three manuscripts extant for the work, including an important but hitherto underutilized Śāradā witness, but it also uses other secondary witnesses, including the modern printed edition as well as Sanskrit works quoted by the NBhū. In order to clearly show my use of the four major witnesses, I accompany my new edition with several apparatuses, especially including a positive apparatus of significant variant readings.⁷ I also offer detailed descriptions of each of these four witnesses, plus diplomatic transcriptions of NBhū 104–154 for each in digital form. Finally, I describe my use of software in the editing process, including Classical Text Editor and a preliminary version of a tool called Brucheion.

In Chapter 3, I translate this same passage into English for the first time, word-for-word, and with footnotes wherever it is judged to be an essential aid to understanding, for example by further explaining a choice among possible readings or by indicating parallel passages in related texts. As a methodological experiment, care was taken to ensure that removal of in-line annotations (square brackets for material supplied from context, round brackets for inter-language information) leaves English that is still fully grammatical, if sometimes also slightly vague and/or awkward, in a way reminiscent of the technical Sanskrit itself. In this way, both more readable and more literal versions of the translation are presented at once.⁸

⁷ A summary of highlighted changes on the *akṣara* level is provided in Appendix 7.

⁸ The translation is available in digital form for readers to manipulate in this or other ways. See Appendix 8D.

Finally, as part of this same effort in close reading, I present an analytic outline, the headings of which are incorporated into the translation (and to a lesser extent the edition) for orientation.

In Chapter 4, I briefly discuss Bhāsarvajña's argumentative strategy, especially in relation to kindred authors of *pramāṇa* works — Buddhists Vasubandhu (4th–5th c. CE), Dignāga (480–540), Dharmakīrti (600–660), and Prajñākara (750–810); Mīmāṃsaka Kumārila (600–650); and the Lokāyata skeptic Jayarāśi (770–830). After scrutinizing the internal structure of the passage, I also offer a frank criticism of the argument, assessing its strengths and weaknesses.

This much completes the first of the study's two halves, Part I, focused on traditional philology. In Part II, I present the results of a major effort to advance distant reading and information retrieval for Sanskrit texts, and I tie this to the philological task at hand. Namely, I introduce a novel system, called Vātāyana, for performing semi-automatic search for parallel passages in a text corpus, complete with newly curated textual data centered on Bhāsarvajña and his peers in the *pramāṇa* text tradition. I then evaluate this system's success in light of philological details secured through traditional means.

In Chapter 5, I begin by motivating the problem of corpus-level text search in Sanskrit, both in its practical and computational aspects. I continue on to survey a number of relevant projects in Sanskrit digital humanities, and also a few such projects in related humanities fields, with special attention to the definition and operationalization of intertextuality.

With the target thus clarified, then, in Chapter 6, I describe the construction of a new intertextuality search system, outlining essential details of the newly curated corpus, the novel combination of natural language processing (NLP) methods into an overall algorithm, and its implementation as a live web application. In a nutshell, the corpus is segmented into paragraph-sized passages, or “documents”, each in turn automatically segmented into individual words. An LDA topic model is then trained on the basis of these preprocessed documents, the output of which serves as a low-dimensional representation of the semantic content of each passage. Using this and also two other well-known NLP techniques (TF-IDF vectorization and Smith-Waterman alignment), the user interface facilitates surprisingly accurate yet still time-efficient comparison of a given focus passage against arbitrarily many others in the corpus, resulting in a ranked list of most similar documents. Additional user interface features also allow customization of various search settings, flexible browsing of search results, and interactive exploration of topic modeling data. Finally, I also describe a batch-search mode (currently available only offline), which facilitates automatic intertextuality analyses for large portions of text (e.g., full chapters or even entire works) all at once.

Then, in Chapter 7, I ground the experimentation by comparing the system's results against a known set of intertextual parallels for NBhū 104–154, the same passage studied in Part I. Parallels are namely first sourced from the footnotes of a published work on the same passage (Yamakami 1999), then classified according to intertextuality type (building on Trikha 2012). Finally, taking a particularly interesting subset of these classified parallels as a benchmark, I show how effective Vātāyana is at finding them on its own.

In an eighth and final chapter, I discuss in general terms the strengths and weaknesses of the system, elaborate on matters of calibration, and think through how such a system can help other scholars of *pramāṇa* supplement (not supplant!) traditional methods of study. As an example of the latter, I also discuss a few specific insights for NBhū 104–154. Finally, I detail next tasks for improving the system.

And lastly, in a brief conclusion, I reflect on what this particular multi-disciplinary study might mean for the involvement of computing in the practice of philology, Sanskrit and otherwise.

Part I: Close Reading

1 Background

1.1 Bhāsarvajña

About Bhāsarvajña the historical person, a number of previous scholars have already attempted general descriptions,⁹ and so I will limit my comments to a few specific issues.

Bhāsarvajña's dating is relative and approximate, and I will speak of it as mid-10th century. For an earliest possible writing date (*terminus post quem*), the latest secure citations we have in the NBhū appear to be those of Prajñākaragupta (750–810)¹⁰, such as found in the passage studied here (NBhū 104–154). In addition, numerous arguments can be found that are very reminiscent of Jayarāśi (800–840)¹¹. The NBhū does not literally reproduce the latter arguments with anything near the fidelity seen in the case of Bhāsarvajña's Buddhist opponents, and so it is difficult to rule out the possibility that both authors drew on common sources, or that Bhāsarvajña drew only indirectly on Jayarāśi via intermediate sources. However, the resemblance is very strong, and therefore I follow Franco (1987a) in maintaining that Bhāsarvajña did in fact know Jayarāśi. On the other hand, for a latest possible writing date (*terminus ante quem*), Jñānaśrīmitra (980–1040)¹² makes very clear references to Bhāsarvajña's “Bhūṣaṇa”.

These modest constraints leave open a window of nearly two hundred years for Bhāsarvajña's activity, from the early 9th to the late 10th century. To get closer, Slaje (1986) compares certain of Bhāsarvajña's doctrines, e.g. concerning the interpretation of the word *avyapadeśya* in NS 1.1.4, to those of Jayantabhaṭṭa, Vyomaśiva, Vācaspatimiśra, and (so far as we know from others) Trilocana, critically reconsidering the evidence for the dating of each. He concludes (275, 278) by placing Jayanta and Vyomaśiva earlier, around 900, and Bhāsarvajña and Vācaspati later, “at the earliest in the middle of the tenth century”, with Bhāsarvajña as the “younger contemporary” of the two; Trilocana (Vācaspati's professed teacher) is then placed in between the two generations. Kataoka (2014), with a focus on Sucaritamiśra, comes to basically the same conclusion (345–341). I tentatively follow this relative chronology, leaving Bhāsarvajña near the middle of the tenth century.

⁹ For such personal summaries, see Franco (2016), Joshi (1986), Narayanan (1992), Potter (1977), and Vidyabhusana (1921, 357ff.). The various editions of the NSā and its commentaries also generally contain accounts about Bhāsarvajña's life and person; see §1.2.1 below.

¹⁰ This dating of 750–810 for Prajñākaragupta is by Ono (1995), based on the following observations (143): Prajñākaragupta criticized Dharmottara (“ca. 740–800”); Jayantabhaṭṭa (“ca. 840–900”) mentions Prajñākaragupta's disciple Ravigupta; and Vidyānandin (“775–840”) quotes the Bhūṣaṇa. Note that no such reasoning seems to be found in Ono's later publication in German (2000), despite the suggestion of as much (xi, n1), since no second volume of the book was ever published. Alternatively, Franco's (2019) updated dating relies on a more recent and later dating for Vidyānandin, thereby pushing Prajñākaragupta's *terminus ante quem* further into the future and arriving at a more conservative estimate of 750–900.

¹¹ Balcerowicz (2020) summarizes the development of Jayarāśi's dating, including Franco's (1994a) estimate of 770–830, and suggests this later range based on the silence of Akalaṅka (720–780).

¹² This dating is according to Kajiyama (1966, 9).

Bhāsarvajña's being from Kashmir is in turn a fairly reasonable assumption, although also less than definitively provable. The two main arguments given by Vidyabhusana (1921) are that 1) several commentaries on his Nyāyasāra (NSā) were found in Kashmir, and that 2) both name components "Bhā" and "Sarvajña" are associated with this area (4–6).¹³ To Bhāsarvajña is also usually attributed either one or the other of the two texts Gaṇakārikā and Ratnatīkā (more on which below) of the Pāśupata Śaiva sect, which in turn is again associated with Kashmir. These are the main arguments I have seen in print.¹⁴ Given this constellation of signs, I provisionally assume that, wherever he may have been born or educated, Bhāsarvajña probably did spend his productive years in Kashmir. In any case, I have not yet seen the question have any bearing on the interpretation of Bhāsarvajña philosophical ideas, at least in the passage focused on in the present study.¹⁵

Given the uncertainty about even these basic facts of time and place, to say nothing of explicit biographical detail, the main facts of Bhāsarvajña's life are therefore just the two or three (or maybe four or five) works attributed to him: the Nyāyasāra (NSā), the Nyāabhūṣaṇa (NBhū), and (less clearly) either the Gaṇakārikā (GK) or Ratnatīkā (RT) (and perhaps also a Nityajñānaviniscaya¹⁶ and/or Satkāryavacāra¹⁷, neither of which is extant). While tradition was unanimous in associating Bhāsarvajña's name with the first of these works, the case with the others is less straightforward and warrants some mention.

As for the uniquely named NBhū,¹⁸ in recorded literature of pre-modern times, it was only Vallabha (early 12th c.) in his Līlāvatī and Rāghavabhaṭṭa (13th/14th c.) in his commentary on the NSā (Nyāyasāravacāra) who explicitly named Bhāsarvajña as its author.¹⁹ Everyone

¹³ Similar arguments are repeated by Potter (1977, 399). Alternative names include also "Bhāvasarvajña", as found in one of the two intact NBhū chapter-end trailers, and perhaps also "Bhaṭṭasarvajña", as found in the Sarvadarśanasamṛgraha. On the latter, see Slaje (1986, 257).

¹⁴ Anecdotally, Arindam Chakrabarty also confidently points to cultural features like the interest in drama as being further characteristic of the same regional milieu that included Abhinavagupta. See the video of his presentation "Reality of the Past & the Future", starting at time 1:40:35 (accessed at <https://youtu.be/bARBhyRcvZI>, Sep. 14, 2021). This talk was held April 28, 2021, as Lecture 14 of the series "Sanskrit Language and its Traditions: A Journey Through its History and Contemporaneity" by the Consciousness Studies Programme of the National Institute of Advanced Studies, Indian Institute of Science Campus, Bangalore.

¹⁵ The forthcoming dissertation of Rafał Kleczek on the NBhū Āgama Pariccheda may well prove this wrong.

¹⁶ See Joshi (1986), who refers (22–23) to Yogīndrānanda (1968), which interprets the text's "... *tan nityajñānaviniscaye draṣṭavyam svayam cānyad apy ūhyam*" with the comment "*nityajñānaviniscayākhye madiye granthe iti prācīnaṭippanam*" (466n2).

¹⁷ See Hara's (1982) study of the RT, which interprets three references to "satkāryavacāra" in this way (206). No text with this exact name has yet been found, but NCC vol. 11 (1983) attests a "Paśupatipāśavicāraprakaraṇa" with "śai. exposition of Satkāryavāda; based on Āgamic Śaivism; interlocutors Kārttikeya-Maheśvara; refutes Kṣapaṇaka, Saugatas; q.s. Kiraṇāgama. Adyar PL. page 229." (254), and vol. 37 (2015) attests a "Satkāryavivecana" with "SB. New DC. XIII. 51798." (171), which might warrant a closer look in this regard.

¹⁸ The NCC catalog entry for "Nyāabhūṣaṇa" in vol. 10 (1978) posits a separate "ancient mīm [=Mīmāṃsaka] writer" of whom a work had been "discovered by Prof. Bhandarkar in the Bhābhānupāḍo monastery at Patan" and who was "criticised by Ratnakīrti in his Kṣaṇabhaṇgasiddhi" (255). However, this seems to be none other than Bhāsarvajña and his own NBhū. Unfortunately, the relatively newer entry for Bhāsarvajña in vol. 17 (2007) does not take the opportunity to explicitly clear this up (124). Besides this, I am not aware of any other extant works by this same name. On one final other possibility, see Joshi (1986, 16).

¹⁹ Potter (1977, 399) refers this fact to "A. Thakur, B2512", which I have not been able to track down.

else, including some very interested in the text, like Jñānaśrīmitra (980–1030), simply referred to the author of the NBhū as the “Bhūṣaṇakāra” or similar, at least in writing. This continued until modern times. Even Vidyabhusana in 1910, for example, despite his tremendous expertise in such matters, his particular interest in Bhāsarvajña as evidenced by his editing the NSā and Jayasimhasūri's commentary thereon, and his insight into the importance of the Bhūṣaṇa for the study of Naiyāyika and Buddhist philosophers, did not yet see fit to speak of Bhāsarvajña and the Bhūṣaṇakāra as one and the same.²⁰

However, absent any other evidence to the contrary, we can indeed feel relatively safe in this attribution, since in the NBhū itself (the text of which was made public a good half century after Vidyabhusana's above-mentioned statements), the Bhūṣaṇakāra does once refer to a particular claim made in the NSā, namely that inference (*samavāya*) might in certain cases be able to be perceived directly, as being understandable “either as an *ekadeśin* view, or else just as my own mistake, due to having composed a text without sufficient forethought.”²¹ This authorship equation thus becomes all the more interesting when we understand it as Bhāsarvajña explicitly revising a prior view from earlier in his career, an act of intellectual humility that has contributed to his reputation as a relatively free thinker.²²

Meanwhile, Bhāsarvajña's authorship of the Gaṇakārikā (GK), a small mnemonic text espousing tenets of Pāśupata Śaivism,²³ and/or its commentary Ratnatikā (RT), is considerably less well supported by his own words in the NSā or NBhū, despite various other references to Śaivism in them, especially in the latter's Āgama Pariccheda. Instead, it seems to be only the lone manuscript from Patan containing GK and RT, edited in 1920 by C.D. Dalal, and in particular its colophon,²⁴ which ever gave us the idea to connect the two. Dalal, trusting this colophon, and also mentioning that he had seen the same name on the colophon of a manuscript of the Nyāyahūṣaṇa,²⁵ quietly asserted that the authors of the GK and the Bhūṣaṇa were the same Bhāsarvajña who had written the Nyāyasāra.

Against this, Dasgupta (1955, vol. 5) argued the opposite, that Bhāsarvajña wrote the RT, not the GK. Namely, he pointed out (11–12, 143) that the Sarvadarśanasamgraha (usually

²⁰ See e.g. Vidyabhusana (1910, 6–8).

²¹ See NBhū: “*tasmāt samavāyasya tu kvacid eva grahanam, yathā ghate rūpasamavāya ity etad ekadeśiyamatena draṣṭavyam. mamaiva vā skhalitam etat, aparyālocitagranthakaraṇāt*” (169, punctuation mine).

²² See e.g. the repeated comments on this by Joshi (1986, pp. 35, 580, 592–93).

²³ For reference, Sanderson (2014, 4–5ff.) fits the Pāñcārthika Pāśupatas into the larger scheme of initiatory Śaivism in the following way:

Atimārga

- I. (Pāñcārthika) Pāśupatas
- II. Lākulās a.k.a. Kālamukhas

III. Kāpālikas (a.k.a. Mahāvratins or Somasiddhāntins)

Mantramārga (i.e., “Tantric Śaivism”)

Kulamārga (predominantly Śākta)

²⁴ According to Dalal's (1920) edition, the manuscript colophon reads: “*ācāryabhāṣarvajñaviracitāyāṁ ganakārikāyāṁ ratnatikā parisamāptā*” (23).

²⁵ Since both our mss. P1 and P2 share the same colophons, and since they probably originated from a common source, this manuscript referenced by Dalal could have been either P1, P2, or maybe even the source document. For more detail, see the section on manuscript descriptions below.

but not unproblematically attributed to Mādhava)²⁶ explicitly attributed the GK to one Haradatta.²⁷ This attribution seemed authoritative to Dasgupta, who therefore suggested that the GK/RṬ colophon should be read to mean that Bhāsarvajña wrote the RṬ, not the GK.²⁸ Later, Hara (1958) supported the same conclusion that the GK/RṬ scribe made a simple error of attribution in this way, and he buttressed this conclusion with two further arguments (10–11). The first of these arguments is a relative chronology placing Haradatta before Bhāsarvajña by about a hundred years, making for a plausible timeline. The second is that the numerous Sanskrit mistakes found in the Dalal edition of the GK supposedly rule out Bhāsarvajña as the author. Sanderson (2014) also supports this latter grammar-based argument, pointing to other known cases of old “Aiśa” Sanskrit. For his own second argument that, out of the two, the RṬ is the text to be associated with Bhāsarvajña, Sanderson also notes what he sees as a formulaic beginning of the RṬ indicating a tradition ascribing the GK to a divine author (i.e., also not Haradatta, much less Bhāsarvajña).²⁹ Whatever the particular reasoning, the current scholarly consensus seems to be that Bhāsarvajña wrote the RṬ.³⁰ Notably, however, Potter (1977, 399) simply transmits the original claim of Dalal, that Bhāsarvajña wrote the GK.

The contradiction between the GK/RṬ colophon and the SDS attribution is indeed an interesting and underappreciated problem, as none of the offered scholarly arguments are airtight. I consider here each point in turn. The scribe may indeed have made a simple mistake, attributing the wrong part of the work to the right author, but also, he could have simply manufactured the author attribution altogether so as to improve the reputation of the work by way of connection to a good name, as was quite common in the ancient world. As for the chronology of Haradatta and Bhāsarvajña, it may indeed work out, but this is not a positive argument in its own right. In turn, the offending grammar errors in Dalal's edition of the GK may indeed be authentic, or else they may simply be a matter of imperfect transmission and incomplete editing; it is certainly strange that no one takes note of the better readings preserved in the SDS's secondary testimony.³¹ And I cannot myself say

²⁶ The Dvaita Vedānta authorship of the Sarvadarśanasamgraha is somewhat difficult, being traditionally attributed either to Mādhavācārya, elder brother of Sāyaṇa, or to Vidyāraṇya, but now more recently argued by Yamashita (1998) as being the product of a generation later, either by Māyaṇa (a corrupted and/or regional form of “Mādhava”?), son of Sāyaṇa, or by Cinnambhaṭṭa (= “Cannibhaṭṭa”?) (22–32).

²⁷ See the claim as printed also in Dalal 1920, p. 31, l. 11: “*tad āha haradattācāryah*”.

²⁸ That is, Dasgupta seems to have had in mind reading nominative *-viracitā* instead of the transmitted locative *-viracitāyām*, but he did not make this argument explicit. Note also that this leaves a somewhat unusual word order, with the locative *ganakārikāyām* intervening between the nominative pair *ācāryabhāsarvajñaviracitā ... ratnaṭikā*. Cp. footnote 24 above.

²⁹ According to Sanderson (2014), both Kaṇḍinya (assumed to be earlier than the author of the RṬ) and the author of the RT (supposed to be later than and aware of Kaṇḍinya's work) introduce their respective root-texts within the context of a conversation begun with a question beginning “O Bhagavat...?” (*kim nu bhagavan*). In Sanderson's words: “This strongly suggests that the author of the Ratnaṭikā considered the propagation of the Gaṇakārikā to be on a par with that of the Pañcartha” (8–9).

³⁰ In addition to these sources, more recently, Christian Ferstl, in an unpublished paper presentation found online (“The Early Depictions of Pāśupata Ascetics in kāvya Literature”, 6th International Indology Graduate Research Symposium, Hamburg, October 6–8, 2014), put Haradatta as author of the GK in the 8th c. and Bhāsarvajña as author of the RṬ in the 10th.

³¹ Consider, for example, two such issues pooled together by Sanderson with further examples from his other “Atimārga I” root texts for consideration of their collective literary nature:

whether the RT's seemingly formulaic beginning is clearly indicative of an interpretive stance toward its root-text, much less whether that stance should be viewed as historically accurate. Finally, reading cursorily through the GT and RT, I cannot myself recognize any definitive stylistic or doctrinal characteristics in common with the NSā or NBhū that would have led to positive identification of Bhāsarvajña in the absence of the Patan manuscript colophon.

With little convincing evidence in either direction, I think it's best to remain agnostic on the question of whether Bhāsarvajña was involved in the authorship of the GK or RT at all. Personally, my current sympathy lies with Hara's (1982) experience of reading the RT in detail, since the rich intertextuality documented there seems reminiscent of Bhāsarvajña's *modus operandi* in the NBhū. I would like to consider the question more as I continue reading the RT and NBhū in the future. For now, however, like the question of Bhāsarvajña's Kashmiri origin, while this particular authorship question might well be important for an interpretation of say, discussions of ritual practice in the NBhū's Āgama Pariccheda,³² it

1) The apparently endingless nominative *hāni* in Dalal's GK 4a (in bold below) is given no other possible explanation. However, simple comparison of this text with the testimony in the SDS (also printed in Dalal, relevant portion again in bold) immediately suggests a way to emend this verse about abandonment (*hāni*) of defilement so that it can harmonize with the account of defilement (*mala*) given later on within the GK itself:

Dalal GK 4:	ajñānahāny adharmasya hāniḥ saṅgakarasya ca / cyutihāniḥ paśutvasya śuddhiḥ pañcavidhā smṛtā //
Cp. in SDS:	ajñānasyāpy asaṅgasya hāniḥ saṅgakarasya ca / cyutir hāniḥ paśutvasya śuddhiḥ pañcavidhā smṛtā //
Correction of GK 4:	ajñānasyāpy adharmasya hāniḥ saṅgakarasya ca / cyutihāniḥ paśutvasya śuddhiḥ pañcavidhā smṛtā //
Half-translation:	"Purification (<i>śuddhi</i>) is recorded as being fivefold, namely, as the abandonment (<i>hāni</i>) of <i>ajñāna</i> , <i>adharma</i> , and <i>saṅgakara</i> , the abandonment of <i>cyuti</i> , [and that] of <i>paśutva</i> ."
Cp. Dalal GK 8...	mithyājñānam adharmaś ca saktihetuś cyutis tathā / paśutvamūlam mūlam pañcaite tantre heyādhikārataḥ // (pādas cd problematic)
...and SDS (pādas cd):	paśutvamūlam pañcaite tantre heyā viviktitaḥ // (better)

i.e.:

malāḥ	:	mithyājñānam	adharmaḥ	saktihetuḥ	cyutiḥ	paśutvamūlam
hānayah	:	ajñānasya	adharmasya	saṅgakarasya	cyuteḥ	paśutvasya

2) The neuter form *trīṇi* instead of the proper feminine *tisraḥ* in use with the feminine plural noun *vṛttayaḥ* (Dalal GK 2d) is indeed a more stubborn problem. The SDS matter-of-factly explains it as being an older construction (*chāndasah prayogaḥ*) for the sake of meter: "*tisro vṛttaya iti prāpte trīpi vṛttaya iti chāndasah prayogaḥ kṛtaḥ pañcamalaghūkaranārtham /*" (Dalal 1920, 311). By itself, however, I do not think this would be enough to rule out Bhāsarvajña as the GK author.

³² I eagerly await a forthcoming dissertation on just such a topic, currently being prepared by Rafał Kleczek in Vienna under K. Preisendanz.

seems to have little bearing on the interpretation of our chosen passage from that work's Pratyakṣa Pariccheda.³³

1.2 The Nyāyabhūṣaṇa

1.2.1 As One of Several Commentaries on Bhāsarvajña's Nyāyasāra

Based on statements by Rājaśekharasūri (1348)³³ in his Śaḍdarśanasamuccaya and by Guṇaratna (1409)³⁴ in his Tarkarahasyadīpikā commentary on Haribhadrasūri's own Śaḍdarśanasamuccaya, scholars such as Vidyabhusana (1910; 1921) have frequently spoken of eighteen commentaries on the NSĀ, although this number has never been very well substantiated. Rājaśekharasūri himself gives only this number and the single name of the NBhū.³⁵ Guṇaratna's comment does the same and then additionally names "the Nyāyakalikā written by Jayanta" and "the *tarka* work Nyāyakusumāñjali".³⁶ Previously, these latter two were interpreted to be additional NSĀ commentaries, but neither holds up as such, as each is now known to be a completely independent work.³⁷ Instead, the context suggests simply that Guṇaratna was listing all important early Nyāya works, up to and including Udayana. In any case, these seem to be the statements, at least in extant printed literature, which planted the idea of eighteen commentaries.

These days, we should instead primarily speak of what has actually been discovered in the form of manuscripts. The number of such substantiated commentaries was already set at five by Vidyabhusana himself.³⁸ This total number gradually increased, effectively reaching twelve securely known commentaries today, including Bhāsarvajña's autocommentary. Narayanan (1992) gives the latest enumeration,³⁹ again with the rather misleading number "eighteen", which I would therefore like to clarify as follows: Narayanan's commentary number 1 is Bhāsarvajña's autocommentary on the NSĀ, the NBhū; his numbers 2–6 are

³³ Against this, Potter says: "In Bhāsarvajña's case his religious convictions are of great importance in assessing his contribution" (1977a, 399), seemingly meaning his overall contribution as a writer rather than the quality of Bhāsarvajña's argumentation in a given context. In any case, no argument is presented for the claim.

³⁴ These dates are from Vidyabhusana (1910, 4).

³⁵ As printed in Dalal's (1920) edition: "*bhāsarvajño nyāyasāratarkasūtravidhāyakah / nyāyasārābhidhe tarke ṭīkā aṣṭādaśa sphuṭāḥ // nyāyabhūṣaṇanāmnī tu ṭīkā tāsu prasiddhibhāk /*" (36).

³⁶ Again, as in Dalal (ibid.): "*bhāsarvajñapraṇīte nyāyasāre aṣṭādaśa ṭīkāḥ / tāsu mukhyā ṭīkā nyāyabhūṣaṇākhyā / nyāyakalikā jayantaviracitā nyāyakusumāñjitalitarkaś ca*" (30). Note the distinctly singular form *mukhyā*, naming only one best commentary. What comes next seems to constitute a separate thought. In M.K. Jain's (1970) edition of the same, the text reads "*tāsu mukhyā ṭīkā nyāyabhūṣaṇākhyā tenaiva racitā*" (138), with the *tena* apparently referring to Bhāsarvajña, but unfortunately without any punctuation after *racitā*.

³⁷ That Jayanta's Nyāyakalikā had been misunderstood as a commentary on the NSĀ due to Guṇaratna's comment was already noted by Potter (1977, 394).

³⁸ Namely, two named Nyāyasāraṭīkā, one by Vijayasimha Gaṇi, and one by Jayatīrtha, which have never been published in edited form, and three which eventually would be: those by Vāsudevasūri, Rāghavabhaṭṭa, and Jayasimhasūri (see below).

³⁹ See chapter 3 of Narayanan's (1992) study of the NSĀ for more basic information on each of the individual commentaries.

those commentaries by others that have been published;⁴⁰ and his numbers 7–12 are those additional ones attested in manuscript libraries.⁴¹ Meanwhile, his numbers 13–14 are to be understood as commentaries on the NBhū, and hence as subcommentaries on NSā, but they are not attested anyway;⁴² his numbers 15–16 are Gujaratna's unattested and disproven ones (see above); and his numbers 17–18 are completely unsubstantiated postulations based on the claimed number eighteen.⁴³ Thus, this specific number eighteen is not very useful for enumerating the commentaries of the NSā. Instead, twelve seems to be a better estimate. Of course, the true number of commentaries composed over the centuries may well be higher, but we just don't have enough specific information to substantiate this.

I also looked briefly into the other commentaries available in print for further insight into NBhū 104–154, which is to say, on Bhāsarvajñā's discussion of the *avayavin* in the context of *ayogipratyakṣa*. Having done so, however, I can unfortunately only report that I saw nothing in them which sheds much light on the subject. Instead, they tend to pass over this portion (just a single aphorism in the NSā) in relative silence. Perhaps further study of those works

⁴⁰ Jayasimhaśūri's *Nyāyatātparyadipīkā* (1910), Vāsudevaśūri's *Nyāyasārapadapañcikā* (1922, 1931), Aparārkadeva's *Nyāyamuktāvali* (1961), Ānandānubhava's *Nyāyakalānidhi* (1961) which is incomplete, and Rāghavabhaṭṭa's *Nyāyasārvicāra* (1976).

⁴¹ These include the two *Nyāyasāraṭīkās* (q.v. above), Rāmabhaṭṭa's *Nyāyanayāmbudhi*, Mādhavaśarman's *Nyāyakalānidhi*, Vidyāsāgara's *Vyākhyāratnam*, and Ratnapuri's *Sīshūhitaiṣīṇī*. The New Catalogus Catalogorum, vol. X (1978) also mentions two more anonymous commentaries, which I can neither confirm nor deny: "C. Tekkematham..." and "C. Tippanī. Mysore..." (268).

⁴² There is some confusion surrounding the supposed subcommentary by Vāsudevaśūri, the (Nyāya-) Bhūṣaṇabhūṣaṇa, apparently due to some crucially variant readings for the only hint about it. Namely, Vāsudevaśūri in his Padapañcikā commentary on the NSā says that certain kinds of minor *nigrāhasthānas* have been "addressed by us" (*asmābhīḥ...abhihitāḥ*) either in the "Nyāyabhūṣaṇa" or in the "Bhūṣaṇabhūṣaṇa", depending on the edition:

evam pratijñāviśeṣahānyādayo 'smābhīr nyāyabhūṣaṇe 'bhihitā iti tatraiva jñātavyāḥ |
(Abhyankar & Devadhar 1922, 57)

evam pratijñāviśeṣaṇahānyādayo 'smābhīr bhūṣaṇabhūṣaṇe 'bhihitās tatraiva jñātavyāḥ |
(Sambasiva Sastri 1931, 81)

No variants are explicitly noted or discussed in either edition. Abhyankar & Devadhar (1922), apparently unaware of Dalal's claim (1920) of a single author for the NSā, NBhū, and GK [sic!], interpreted these words of Vāsudevaśūri to mean that Vāsudevaśūri himself was the author of the Bhūṣaṇa. This is of course now disproven by other evidence. Nevertheless, reading with this same edition, Joshi (1986) argues that Vāsudevaśūri must have used the inflected form of the word "*asmad*" to mean "our author", meaning Bhāsarvajñā, rather than himself (18), but this does not seem idiomatic. This leads one to prefer the alternative reading of Sambasiva Sastri (1931), "Bhūṣaṇabhūṣaṇa", although in light of the disagreement one would like some additional insight into the manuscript evidence. It is by taking this latter reading at face value (namely as a *tatpuruṣa* compound in which the first "*bhūṣaṇa*" equals the Nyāyabhūṣaṇa) that we are then led to the idea that there was such a sub-commentary, and that it was written by Vāsudevaśūri. Against this, Joshi (1986) arrives at the conclusion that there was no such commentary (19–20), but I find his argumentation unclear. Meanwhile, the other supposed subcommentary, Gadādharamiśra's *Bhūṣaṇaprakāśa*, is apparently inferred from a statement in Maṇikāṇṭhamiśra's *Nyāyaratna*, but it has also never been substantiated in any other way.

⁴³ As Narayanan also mentions, there does apparently also exist another modern commentary, in Marathi, which does not seem to have ever counted toward the number eighteen. I have so far been unable to obtain this Marathi commentary for consideration.

as wholes would reveal more subtle insights into Bhāsarvajña's methodological and epistemological principles, among other things, but that must wait for a later date.

1.2.2 In Modern Scholarship, with Focus on NBhū 104–154

The NBhū is a massive, understudied, and underappreciated work.⁴⁴ Setting aside studies based primarily on the NSā, scholarship directly on the Bhūṣaṇa itself includes only about a dozen articles in English, German, and French,⁴⁵ a few dozen more in Japanese (most by S. Yamakami),⁴⁶ and a few book-length dissertation projects (most not easily accessible).⁴⁷ Of special note in the latter category are the studies of the Pratyakṣa Pariccheda by L.V. Joshi (1986) and S. Yamakami (1999b), described below.

Joshi's 1986 book⁴⁸ covers NBhū 1–104 and NBhū 154–187, notably omitting our passage.⁴⁹ Joshi's stated goal for his project was “to give a critical exposition line by line and word by

⁴⁴ See Franco (2016, 171–172) for a similar recent assessment.

⁴⁵ Articles in European languages include: Thakur (1959b), Oberhammer (1974a; 1974b), Matilal (1977), Kimura (1979; 1982), Joshi (1983; 1990), Franco (1987a), Sen (1991), Yamakami (1996), Haag-Bernède & Venugopaladas (2001), Colas (2009), Muroya (2011), and Franco (2016).

⁴⁶ Articles in Japanese include: Kyūma (1995), Moriyama (2007), and Yamakami's dozens of articles, many of which are listed by him online at <http://www.cc.kyoto-su.ac.jp/~yamakami/publication.html> (accessed Sept. 21, 2021). I have compiled further bibliographic details on Yamakami's work elsewhere.

⁴⁷ Other doctoral dissertations on Bhāsarvajña besides those of Joshi and Yamakami are listed here below.

On the NBhū, Anumāna Pariccheda:

- “Anumāna-pariccheda of the Nyāyabhūṣaṇa: a study” (1988, Kurukshetra U., unpublished, in Hindi) by S.M. Mishra
- “Proof in Bhāsarvajña’s Nyāyabhūṣaṇa” (1992, U. of Vienna, unpublished, in German) by E. Prets
- “A critical study of the Anumāna-pariccheda in the Nyāyabhūṣana of Bhāsarvajña” (2002, Gujarat University, under L.V. Joshi, in Gujarati) by N. Patel
- “Anumāna Pariccheda of Bhāsarvajña’s Nyāyabhūṣaṇa [= Bhāsarvajñaracita Nyāyabhūṣaṇa kā Anumāna pariccheda]” (2002, Dehli, J.P. Publishing House, in Hindi) by “Añjanā” (?)
- “An introduction to the logic of Bhāsarvajña [= Bhāsarvajña kī tārkika bhūmikā]” (2010, Delhi, Anya Prāptisthāna Caukhambā Publishing House, in Hindi) by “Satyamūrtti” (?)

On the NBhū, Āgama Pariccheda:

- a forthcoming dissertation by Rafał Kleczek (University of Vienna, under K. Preisendanz)

On the NSā:

- (as mentioned) “Nyayasara of Bhasarvajna: A Critical Study” (1981/1992, in English) by T.K Narayanan
- “The Nyayasara of Bhasarvajna: A Critical and Analytical Study [= Bhāsarvajña ke ‘Nyāyasāra’ kā samālocanātmaka adhyayana]” (1979/1991, in Hindi) by Ganeshukak Suthor [= Ganeśilāla Suthāra] (?)

And not exclusively on Bhāsarvajña or the Bhūṣaṇa but including major consideration of its *avayavī* discussion:

- “Die Lehre vom Avayavī in Nyāya und Vaiśeṣika vor Udayana” (1971, U. of Vienna, under G. Oberhammer, in German) by O. Grohma (†1974)

Besides Joshi, Yamakami, Narayanan, and Grohma, the others were either not possible to obtain or judged to not yet merit consideration for the present study.

⁴⁸ Except for small details in the introduction and fixing of various typos, Joshi's 1986 book is nearly identical to the typewritten dissertation submitted in 1979, the electronic version of which is especially easy to find online.

word” (1986, vi), and he has in fact done so, but his presentation thereof is seriously compromised by two decisions: 1) to liberally rearrange textual passages for presentation as his own thematic chapters, and 2) to silently intersperse sentences or even entire paragraphs of his own exegesis in among the translation. Hence Franco's (1987a) description of it the year after its publication as a “detailed and reliable paraphrase” (46n4). In fact, however, most every Sanskrit word in the covered portion is reflected in Joshi, if only one knows where to find it.⁵⁰

In his sensitive presentation of the work's ideas, Joshi's work has indeed proven quite reliable, and I'm happy that it may continue to do so until a single comprehensive English translation of the *Pratyakṣa Pariccheda* can be prepared. As stated, the main problem is that it is difficult to keep track of which words are Bhāsarvajña's and which are Joshi's. More subtly, it is important to bear in mind the acknowledged influence⁵¹ of the then-fairly recent work by D. N. Shastri, “Critique Of Indian Realism: A study of the conflict between the Nyāya-Vaiśeṣika and the Buddhist Dignāga school” (1964), in which historical trends in the philosophical literature are portrayed as a polarized rivalry narrative, which results in certain contrasts being overstated at times. One also gets the clear feeling from Joshi's presentation that he believes that Bhāsarvajña is simply *right* with most of his ideas, even in comparison to modern scientific understandings, which complicates use of the book. Besides this major book-length project, I have so far been able to access only one additional published study on the NBhū by Joshi, namely on *pratyakṣa* as it figures into Bhāsarvajña's definition of *anumāna*.⁵²

⁴⁹ See Joshi 1986, p. 611, n. 87, for the nominal justification for this omission:

As the refutation of the composite whole (*avayavin*) by the Buddhist and its establishment by the Naiyāyikas are well known and dealt with in the *Nyāyasūtra*, *Nyāyabhāṣya*, *Nyāyavārtika*, *Nyāyamañjarī*, etc; we have not devoted a separate chapter to the topic of whole-'*avayavin*'.

See: NS, 4.2.4–17

NB, on these sūtras

NV, pp. 502–511, Benares ed. 1915

NM, *Prameya-prakaraṇa*, pp. 114–117

NVT, pp. 642–647, Benares ed. 1925

Since Joshi provides no evidence for his implicit claim that Bhāsarvajña makes no significant contribution of his own to this discussion, my guess is that the real reason for the omission was a simple one of practicality: The level of technical engagement with Buddhist thought required for this section made it impractical to include in Joshi's dissertation work at the time.

⁵⁰ See Appendices 1 and 1D for more information on the actual correspondance between Joshi's English translation and the Sanskrit original, otherwise only dimly discernable from the translation footnotes.

⁵¹ Also influential as immediately discernible from Joshi's footnotes are: S.C. Vidyabhusan's “History of Indian Logic” (1921); F. Stcherbatsky's “Buddhist Logic” (English publication 1930-32); D.C. Bhāttācārya's “History of Navya-Nyāya in Mithilā” (1958); S. Sanghavi's “Advanced Studies In Indian Logic and Metaphysics” (1961); and G. Kaviraj's “Gleanings from the History and Bibliography of the Nyāya-Vaiśeṣika Literature” (1982).

⁵² The study of the word “*tatpūrvaka*” in NS 1.1.5 was developed over the course of two publications in *Sambodhi* (Joshi 1983; 1990). The additional conference presentation noted by Potter — “Bhāsarvajña's fresh approach to *tatpūrvakam* (*Nyāyasūtra* I.1.5)”. Proceedings of the All-India Oriental Conference 32, 1984-85, 347-348 — seems to just summarize the 1990 *Sambodhi* paper material as workshopped before its eventual publication.

Yamakami's 1999 book⁵³ is written in Japanese, and it is probably for this reason that it is currently still missing from Potter's online bibliography even after mention of the omission by Franco (2016). The book attempts to translate our passage (NBhū 104–154) and also a few others (NBhū 46–58; 171–173; and 176–187, the latter being the tail end of the Pratyakṣa Pariccheda), complete with numerous intertextual annotations and variant readings both from the best manuscript, P1, and, where it is available for the first three-quarters of the Pratyakṣa Pariccheda, also from the novel V manuscript (*chez* Yamakami "MsB").⁵⁴ What's more, Yamakami also gradually published translations of many other portions of the NBhū over the course of several decades, especially from the Pratyakṣa Pariccheda, and his complete, unified translation of the chapter is apparently now finished and awaiting publication.⁵⁵

The continuation of such sustained and diligent work is certainly excellent news for those who can access it. However, the fact that Yamakami's work does continue to be published almost entirely in Japanese does unfortunately render it inaccessible to most scholars of Sanskrit. Moreover, based on the use of manuscript sources and on the quality of translation seen in the 1999 book, the latter of which I was able to consider only to a limited extent, another attempt at this material was in fact warranted, for the following reasons. First, explicit reporting of variant readings in Yamakami 1999 is selective and does not always clearly choose the better reading, much less properly justify the choice in difficult cases.⁵⁶ Also, no readable edition of the text is supplied, such that one must carefully scrutinize the translation and footnotes for such variants and then reconstruct a given sentence (sometimes also with new punctuation) for oneself on that basis. Second, my general impression from occasionally consulting the Japanese translation on harder points, most often with the help of native-speaking colleagues, is that it has its own problems capturing subtleties in the Sanskrit text and philosophical argument. For this reason, I eagerly anticipate the coming update. And third, related to the latter point, also the accompanying outline, while fortunately available online also in English,⁵⁷ does not clarify the argument's structure as one might hope (see more on which below in the introduction to the outline). On the other hand, the intertextual footnotes, recorded largely in *romaji*, are undoubtedly quite helpful and exceed my own manual efforts.⁵⁸ Yamakami does also offer two articles in English (1999a, 2001), both on the Pratyakṣa Pariccheda.

⁵³ The book is based on a dissertation of the same title, submitted one year earlier, in 1998.

⁵⁴ For my own descriptions of these sources, see section §2.1.2 below.

⁵⁵ Personal communication with S. Yamakami, January–June 2021.

⁵⁶ I evaluate Yamakami's suggestions for textual emendation in Appendix 3. As can be seen there, in close to half of cases (63 out of 143), Yamakami's suggestion either must be rejected or it must be accepted for reasons substantially different than those presented.

⁵⁷ See <http://www.cc.kyoto-su.ac.jp/~yamakami/synopsis.html>, reported modified Jan. 9, 2002, accessed Sept. 14, 2021.

⁵⁸ I make extensive use of these footnotes especially for the digital humanities project detailed in Part II of this study. Note also the many connections Yamakami makes to two secondary Jaina sources, namely, the Prameyakalamārtanḍa of Prabhācandra and the Nyāyaviniścayavivaraṇa of Vādirājāsūri.

Thus, since Joshi's treatment of the NBhū perception chapter skips it, and since Yamakami's treatment of the passage is not suitable for most to rely on, NBhū 104–154 remained in need of a full English translation, and, as it turns out, also a new edition.⁵⁹

Finally, smaller studies also found to be relevant for the present study of the NBhū include the following: Thakur (1959b) establishes expectations for the NBhū a decade before the edition's publication, Matilal (1977) gives bird's-eye-view highlights for the entire work, and Potter (1977) gives an influential state of the art on the author; a few philological notes are provided by Steinkellner (1972) and Sen (1991), and dating arguments are given in Slaje (1986); and finally, detailed philosophical work is done in Grohma (1971), Franco (1987a; 2016), and Muroya (2011).⁶⁰

1.3 Philosophical Context

The Nyāyabhūṣaṇa is styled as a commentary on the author's own prior aphoristic work, the Nyāyasāra, or “Essence of Reasoning”. As is especially evident in the more extensively polemical Nyāyabhūṣaṇa, Bhāsarvajñā was with this pair of works taking part in an ongoing effort to secure Nyāya against rival views, above all those of Buddhist epistemologists in the tradition of Dignāga and Dharmakīrti.⁶¹ Despite their many thoroughgoing disagreements, including interminable discussions about the meaning and significance of nearly any given philosophical term, these various thinkers largely agreed on the general framework of debate and on the kinds of questions worth discussing. This interscholastic common ground crystalized during the time of Vātsyāyana (second half of 5th c.)⁶² and Dignāga (480-540)⁶³.

Here, I give a few different types of background on these questions and concepts that may help the reader to navigate the very dense discussion in the following treatment of NBhū 104–154. First (§1.3.1), I present some abstract conceptual background, building gradually toward a short summary of the issue of the composite whole (*avayavīn*). Second (§1.3.2), I talk about the passage NBhū 104–154 as it functions intra-textually within the NBhū. And third (§1.3.3), I situate the discussion in its inter-textual context, summarizing what it does in relation to its direct philosophical interlocutors. Finally, note that, although all this is

⁵⁹ For notable translations of smaller bits of the passage, see Steinkellner (1972) and Grohma (1974). I also have reason to believe that the various other dissertation projects (e.g., E. Prets's in German, S.M. Mishra's in Hindi, N. Patel's in Gujarati) contain significant translation material for ranges of the Anumāna Pariccheda in particular, but I did not obtain any of these for this study.

⁶⁰ Although it does not pertain to the present study, I would be remiss if I did not also mention Oberhammer's (1974a; 1974b) detailed theoretical work on the Āgama Pariccheda.

⁶¹ For an important narrative account of this intellectual rivalry, see D. N. Shastri (1976). An interesting addition to the narrative is the role of Mīmāṃsā in maintaining the brahmanical realist position against Buddhists during a momentary lapse in Naiyāyika polemics, as suggested in Larry McCrea's talk “The Dark Age of Nyāya: The Retreat, Resurgence, and Reformation of Brahmanical Logic”, presented at the Spring 2012 Hindu Studies Colloquium at Harvard University. See also Potter (1977, 13–14) on a similar idea.

⁶² On this dating of Vātsyāyana, see Oberhammer (1964, 302n1) and also Franco and Preisendanz (1995, 86). I'm grateful to Philipp Maas for also drawing my attention to two things: his own note (2020, 5) on the Pātañjalayogaśāstra being a *terminus post quem* for the NBh, and Karin Preisendanz's (2018) more recent argument in favor of a slightly earlier dating for the NBh, namely at the *beginning* of the 5th c., based the relative chronology of “Vasubandhu the younger”, Vindhyavāsin, Bhavadāsa, and the Nyāyasūtra (183n12).

⁶³ See Hattori (1968, 4).

geared toward understanding Bhāsarvajñā's ideas as put forth in NBhū 104–154, specific analysis of that material is deferred until the Discussion in Chapter 4.

1.3.1 Key Philosophical Concepts

Dialectical Framework and Negative Method (*pramāṇa, anumāna, vyāpti, prasaṅga*)

As is often the case when discussing systematic Sanskrit philosophy of the last two millennia, the foundational concept here is that of valid knowledge (*pramāṇa*) and the means thereof (*pramāṇa*).⁶⁴ Bhāsarvajñā accepts three⁶⁵ such means of valid knowledge — perception (*pratyakṣa*), inference (*anumāna*), and scriptural or verbal testimony (*āgama, śabda*) — and he structures the chapters of his work around this taxonomy. NBhū 104–154 occurs within the chapter on perception, since it is most basically concerned with the nature of the object of perception. That said, the nature of inference, especially whether one can prove certain negative claims like “the apparent difference between A and B does not ultimately exist”, is equally central to the discussion, since it is none other than inferential arguments that must adjudicate between different views.

Let us briefly characterize these three means of valid knowledge in a way that cuts across all major schools of Indian philosophy. Generally speaking, the prototypical perception is sense perception, meaning the five senses interacting with external objects. Closely allied with this, however, is an inner mental (*mānasa*) perception providing introspective access to one's thoughts and feelings as well as directing attention toward other sensory activity. Insofar as the “mind” or “internal faculty” (*manas, antaḥkaraṇa*)⁶⁶ is itself considered a sixth sense organ, this mental perception can also be included under the heading of “sense perception”. Finally, at least according to some schools, notably excluding Mīmāṃsā and Lokāyata, perception also includes certain types of extra-sensory perception, specifically in the case of spiritual adepts (*yogins*).

In turn, inference constitutes the central element in valid reasoning. In the basic picture, knowledge of “pervasion” (*vyāpti*) or entailment relationships between particular properties, when combined with some starting premises, leads one to draw certain conclusions. As elaborated in the Buddhist tradition starting with Dignāga, this process can

⁶⁴ For introductions to *pramāṇa*, see, e.g., Potter (1977), Matilal (1986, 22ff.), and, responding to the latter two, Bilimoria (1993); for introductions as seen through the lens of the Tibetan commentarial tradition, see Dreyfus (1997, *passim*) and Dunne (2004, 15ff.) Good introductory material is also provided by Patil (2009, 35–56) and by McCrea & Patil (2010, 7–16), and the early footnotes in McCrea and Patil 2006 (303–308) provide numerous helpful leads on particular subjects such as Dignāga and Dharmakīrti. Ganeri 2001 is also useful, but see also the review by Patil (2010).

⁶⁵ As far as Bhāsarvajñā is concerned, analogy (*upamāna*) can be reduced to verbal testimony (NBhū 417: “*upamāṇaḥ śabdāntarbhūtam*”), supposition (*arthāpatti*) can be subsumed under inference (427: “*arthāpatter apy anumāne 'ntarbhāvah...*”), and absence (*abhāva*) is to be subsumed under one of the three accepted *pramāṇas* depending on the specific context (431: “*abhāvasya tu triśv api yathāsambhavam antarbhāvah...*”). See also Joshi (1986, 330ff.) On Bhāsarvajñā's treatment of *upamāna* specifically, see Franco (2016).

⁶⁶ It is often noted that English “mind”, while etymologically related, is a poor translation for *manas*, since the latter has a much more restricted scope in systematic Sanskrit philosophy than “mind” does in Western philosophy. The synonymous term *antaḥkaraṇa* (“internal faculty”) is easier to work with for this reason.

take place either “for one's own sake” (*svārtham*), i.e., within an individual's own mind, or “for others” (*parārtham*), i.e., interpersonally in the context of debate. These general features are more or less agreed upon, but certain higher-level beliefs about inference, specifically, by what means premises and entailment relations must be known, and to what extent inference can be used to prove negatives and/or universal statements that pertain to “all things”, make for some of the most interesting epistemological issues in the literature.

Finally, verbal testimony centers on linguistic communications, whether in real-time or in the form of scripture, subject to some sort of reliability criterion. Most important for the current study is the question of whether the Vedas — here meaning not the core *Samhitā* literature (*Rg-*, *Yajur-*, *Sāma-*, and sometimes *Atharvaveda*) so much as the *Upaniṣads* — constitute an irreducible means of valid knowledge unto themselves. As an “orthodox” brahmanical thinker (*āstika*), Bhāsarvajña does of course advocate that such Vedas are authoritative, and like other *Naiyāyikas*, he considers them to have been written by God (*iśvara*) rather than to have always existed without any author (*apauruṣeya*) as advocated by certain *Mīmāṃsakas*. Perhaps unsurprisingly, however, since scriptural difference between sectarian groups makes poor common ground for dialogue, these issues do not affect the present debate on the status of perceptual objects in any fundamental way.

Concerning this general framework of three *pramāṇas*, there are a number of additional interesting and subtle questions that tend to arise in the literature:⁶⁷ Do the types of means of knowledge all provide equally valuable knowledge, or is there a hierarchy among them, with one or more serving as a foundation (*mūla*)? Can a given object be known by multiple types of means of knowledge (*pramāṇaviprava*) or is it limited to only one type (*pramāṇavyavasthā*)? And: Does a given means of knowledge automatically have validity (*prāmāṇya*) in its own right (*svataḥ*), simply by virtue of its occurring, or does it need to be corroborated by something other than itself (*parataḥ*)? Most relevant for the present discussion is the last of these questions, on the nature of validity (*prāmāṇya*), since some of the Buddhist's arguments lead to considerable disagreement about how much corroboration of the individual elements of an inference is required in order for it to function properly as a whole to produce valid knowledge, or conversely, how subject to invalidation an inference is if its premises can be counteracted (*bādhita*) by some subsequent analytical means.⁶⁸

Finally, a few words are warranted about entailed unacceptable consequences (*prasaṅga*), which Sanskrit dialecticians are fond of pointing out to the detriment of their opponents. Terminology used to express these consequences includes various combinations of the following:

- verbs of being and becoming (e.g., *vbhū*, *Vas*, *Vvṛt*) especially in the future or optative tenses (e.g., *bhaviṣyati*, *syāt*); and/or
- forms of verbs like *pravsañj*, *āvpad*, *pravāp*, and *āvyā*, all in the sense of “end up” or “happen”; and/or

⁶⁷ See Joshi (1986), chapter 5 for Bhāsarvajña's take on these general questions about *pramāṇa*.

⁶⁸ Specifically, the Buddhist's arguments against external objects start by assuming a certain kind of difference (*bheda*) between components of the inference (either between an object and the awareness thereof, or between waking and dream awareness) and end up concluding that that difference was never really there in the first place, but rather had only ever been superimposed out of ignorance.

- words expressing established dialectical problems, like vicious regress (*anavasthā*) or circularity (*anyonyāśraya*), contradiction (*virodha*), and so on; and/or
- hyperbolic consequences like “debate would be impossible”, “everyone would be blind and mute”, or even “the world [i.e., as we know it] would end”.

Such pointing out of undesirable consequences befalling the opponent (*prasaṅgāpādana*) contrasts with giving positive evidence for one's own position (*svatantrasādhana*).⁶⁹ Notwithstanding occasional disagreements about the extent to which such negative argumentation can properly be used by those who do not themselves subscribe to the premises involved, such negative strategy was generally speaking quite a fundamental part of Indian philosophy, but it was embraced much more strongly by some, e.g., skeptics like Jayarāśi or so-called Prāsaṅgika Mādhyamikas like Candrakīrti.⁷⁰

Realism (Vaiśeṣika, Abhidharma)

A natural starting point for thinking about ontology is pluralistic realism, in which the universe is populated by myriad truly existing discrete things which interact with each other. In fact, the word “real” in English is derived from Latin “rēs”, which simply means “thing”. Thus, to be “rē-al” is to be “thing-like”, and our common experience is indeed of many independent things around us, the existence of which we generally need not doubt. Solid medium-sized objects (tables and chairs, or in ancient South Asia, pots and cloths) are the main characters in this story, but up to a point, accommodations can also be made for those “things” that are less discretely “thing-like” yet hard to deny as perceptible aspects of human experience. These include: smaller solid objects generally encountered as parts of collections, e.g., hairs, threads, or mustard seeds; fluid (i.e. non-solid) objects, like water, smoke, or fire; objects' properties, e.g., color, taste, or texture; and psychological entities, like thoughts, sensations, or the sense of self.

Abhidharma Buddhism and Vaiśeṣika are two examples of such pluralistic realism formalized into systems. The more intuitive of these two, at least in its basic details, is Vaiśeṣika, which starts by positing fundamental kinds of entities called *padārthas*, which can be literally translated as “objects/referents of words”, including above all substance (*dravya*), quality (*guṇa*), motion (*karman*), and inherence (*samavāya*). The first three are of course familiar, while the latter is postulated for explaining what binds the other entities together, for example quality and substance.⁷¹ All Naiyāyikas use some form of this Vaiśeṣika ontology as a starting point for their epistemological theories, and Bhāsarvajña is no exception.

⁶⁹ These are Bhāsarvajña's terms; see, e.g., NBhū 123,8–9: “yad apy avayavinirākaraṇe vṛttyanupapatter ity uktam, tatra kim idam svatantrasādhanam, atha prasaṅgāpādanam iti?”

⁷⁰ There is a vast literature on this subject. A good starting point is Dreyfus and McClintock 2003, but also other worthwhile literature on Madhyamaka, e.g. the volume “Moonshadows” by the “Cowherds” (2011), must generally address the same. For skepticism in Classical India more broadly, two good starting points are the recent volume edited by Hanner (2020) and Franco's (2017b) article relating Jayarāśi to the Nyāya-Vaiśeṣika and Buddhist traditions. Mills 2018 may also be useful for references. Finally, see also the work by Nilanjan Das and Jonardon Ganeri on Śrīharṣa, whose skepticism focuses more on the possibility of philosophical definition (*lakṣaṇa*) than on that of valid knowledge (*pramā*).

⁷¹ Perhaps contrary to expectation, even substance is said to be able to “inhere in” other substance in the specific case of the composite whole (*avayavin*), which inheres in the equally substantial component parts (*avayavas*) from which it arises.

However, he is unusually bold about his revisions to the system. Namely, even the third of these basic three *padārthas*, motion, he sees fit to subsume under the second, quality. As to the status of the further Vaiśeṣika categories of universal (*sāmānya*), differentia (*viśeṣa*), and, if only several centuries later, absence (*abhāva*), scholarly opinions differ more widely, due to additional problems that arise in connection with them,⁷² but Naiyāyikas generally did ascribe full reality to them as well. Taken together, this is the ontological foundation on which Nyāya builds its analytic theory not only of external things in the world, but also of the personal Self (*ātman*) and how it relates to both the human body and the cosmos.

On the other hand, as a branch of Buddhist thought, Abhidharma is concerned to facilitate analysis of experience in terms particularly conducive to Buddhist practice, especially including the concept of no-Self (*anātman*), which denies unifying essences of all sorts, especially in the form of a human soul.⁷³ As such, it places great emphasis on reductive analysis into ever smaller and ultimately smallest parts, called “dharmas”. In some Abhidharma traditions (notably excluding Theravāda), these dharmas are basically momentary instantiations of properties. That is, despite being pluralistic and realistic, in the sense that they assert such dharmas to truly exist as separate entities, such Abhidharma traditions eschew substance as a basis for perduring existence, instead opting for something like a pointillist bundle theory, wherein it is only properties momentarily flashing into existence and temporarily working together that produce more complex effects. This concept is used to characterize the most important elements of human experience that become targets of psychological “clinging” or, more literally, “appropriating (as one's own)” (*upādāna*), which are categorized into five “heaps” (*skandhas*), including both physical elements (*rūpa*, “form”) and non-physical elements (*vedanā*, “feeling”; *saṃjñā*, “ideation”; *saṃskāra*, “mental formations”; and *vijñāna*, “consciousness”).

Such realistic Abhidharma theory, especially in the form of the Sautrāntika tradition, forms a sort of backdrop for Dignāga-Dharmakīrtian Yogācāra anti-realism, in that it provides the particular ladder used to achieve effective metaphysical height before being ultimately

⁷² For example, Vaiśeṣikasūtra 1.2.3 (*sāmānyam viśeṣa iti buddhyapekṣam*) has prompted some scholars to speculate that an early version of Vaiśeṣika doctrine might have in fact been nominalist in its view on universals. Some such scholarly views are summarized by Sarkar (2001, 456–57). Among those, D. N. Shastri (1976) goes even further to interpret VS 8.14 (*artha iti dravyaguṇakarmasu*, “8.2.3” according to his sources) as Kaṇāda saying that “only dravya, guṇa, and karman were held to be objectively real (*artha*)” (139–141). Against such nominalist readings, Sarkar himself argues for reading the later commentators' strict realism back into Kaṇāda as well (457–59), but I do not find his argumentation very convincing. More successful in defending the continuity of the realist tradition is Oetke (1999), whose argumentation basically boils down to highlighting the immediately preceding context, VS 1.2.1–2. These sūtras indirectly establish the asymmetry of a *single* effect always depending on *multiple* necessary causes (and not the other way around), thereby providing an explanation for why we do not always perceive things in terms of universals and differentiae. Namely, such thoughts as “these have something in common” or “these are different” — Oetke is right to take seriously the “*iti*” in “*sāmānyam viśeṣa iti*” — are in fact grounded in real universals and differentiae, but they are *also* dependent on a cognitive element (*buddhi*), namely, the mind's noticing continuity (*anuvṛtti*) or the leaving off thereof (*vyāvṛtti*) in a given practical context. In short, I would conclude that, although it may be easy to sympathize with the view of nominalism about universals, as I myself do and as D. N. Shastri clearly also does, this is not a good reason to read it into early Vaiśeṣika.

⁷³ D. N. Shastri (ibid.) regards the concepts of *avayavīn* and *sāmānya* as both intimately related to that of *ātman*. Understanding all three concepts as “unifying principles”, he says that they are what become “the most disputed topics” between Nyāya-Vaiśeṣika and Buddhism (249).

kicked away, as ultimately erroneous, in favor of (one or more levels of) “higher” truth.⁷⁴ By contrast, such a meta-theoretical move is not condoned by Nyāya-Vaiśeṣika realism, which continually maintains its basic ontological theory as fully true, seeing no need to contradict it with counterintuitive ideas like anti-realism or no-Self. The two thus have a very different practical relation with the concept of error.

Erroneous Perception, Object Support, and Correspondence (*khyāti, ālambana, samvāda*)

There were numerous theories concerning the nature of erroneous cognition in Sanskrit philosophy.⁷⁵ Perceptual cognition, and specifically visual perception, was the prototypical case for discussion; whether the theories were also meant to be applicable to non-sensory cognition remains unclear.⁷⁶ Starting with Maṇḍanamiśra's Vibhramaviveka (VibhrV, c. 690, i.e., only after Uddyotakara, Kumārila, and Dharmakīrti), we find Sanskrit writers referring to these various theories with the word “*khyāti*”, which I will translate as “appearance [in cognition]” but with the additional idiomatic connotation of erroneousness.⁷⁷ These theories, with names of the form “X-*khyāti*”, or more precisely, “X-*khyāti(vāda)*”,⁷⁸ essentially try to characterize the nature of the *internal object* of erroneous cognition, where by “internal object” is meant only the *apparent phenomenal content* of the cognition, in contrast to a more real and external referent, at least in certain cases. For example, for

⁷⁴ See, e.g., Dunne (2004, 53–79), as well as Kellner (2011a) and Franco (2017a). As employed by Dharmakīrti, provisional Sautrāntika realism is basically the same as that found in Vasubandhu's Abhidharmakośabhāṣya, which in turn offers a critique of the rival Vaibhāṣika perspective summarized in none other than the Abhidharmakośa's own *kārikā* root text; see e.g. Gold (2021).

⁷⁵ There is a good deal of literature on the topic. As a starting point, I primarily recommend Schmithausen's (1965) crucial study of Maṇḍanamiśra's Vibhramaviveka and Franco's (1984) article which uses Schmithausen's study as an aid for exploring Jayarāśi. Gupta's (1963) study of Jayanta's theory of perception is in turn important background for Schmithausen's work. Meanwhile, Rao's (1998) monograph on the topic of perceptual error is helpful, but only with numerous caveats, in that, e.g., he totally disregards all of the above.

⁷⁶ Schmithausen (1965) immediately makes clear that it is only “*sinnlich unmittelbar*” (*aparokṣa*) cognition that he himself intends to speak to (147). This includes not just normal waking sensory cognition but also illusion and dream.

⁷⁷ Schmithausen (*ibid.*) most frequently translates the root *vkhyā* intransitively as “*erscheinen*” (“appear”), i.e., as if synonymous with the intransitive root *vbhā*, but also sometimes as “*erfassen*” (“apprehend”), i.e., as if synonymous with the transitive root *vgrah*. On the other hand, Rao (1998) insists only on “cognize” (e.g., p. 143, *et passim*). In my view, both types of translations are justified by our lexicographical knowledge of the root, and both can be used correctly, but one must be very careful in either case. Namely, one should try to be consistent, not using one translation for certain cases and the other translation for other cases (e.g., Schmithausen makes exceptions for the tricky case of *akhyāti*, see p. 239ff.), and one should take care not to mislead the reader with how one uses “object” and the construction “cognition of”, both of which can ambiguously refer to both of the key components of error (Rao's presentation frequently becomes unclear in this way, e.g., in his alternately speaking of both shell and silver being “cognized”, which amounts to equivocal use of the English verb “cognize”; see pp. 63–71), on which see immediately below.

On the use of the root *vkhyā* in the meaning of “know, understand”, cp. its compounded form *prasamvkhyā* at NBh 4.2.2, where one can also observe this compound verb's suppletive — if not etymological (Mayrhofer 1992, I, 523) — relation with *prasamvcaṅ*, of the same meaning.

⁷⁸ For the clarification that the word *khyāti* alone does not mean a “theory of error”, since for such cases we clearly find the construction X-*khyātivāda*, cp. Rao (1998, 143). Probably responsible for the frequently imprecise translation one finds in the literature is the fact that the construction “X-*khyāti*” (indeed often by itself) is found primarily in doxographical contexts, as well as the fact that the Monier-Williams dictionary includes “view, opinion” among its definitions for “*khyāti*”, which is not relevant in the current philosophical context.

the commonly discussed rope/snake, shell/silver, and sunrays/water illusions, wherein the first item is mistaken for the second, the *khyāti* theories attempt to clarify the ontological status of the apparent snake, silver, and water.

Before laying out the relevant doxographical alternatives, let us secure the basic correspondence theory of truth as a helpful framework. We find the locus classicus for Nyāya at NBh ad NS 1.1.4, where Vātsyāyana is commenting on one particular feature of perceptual cognition, namely, that it must be non-deviating (*avyabhicārin*) with regard to its object. Here it will help to present the Sanskrit: “*yad atasmin « tad » iti, tad vyabhicāri. yat tu tasmin « tad » iti, tad avyabhicāri pratyakṣam iti.*”⁷⁹ Gangopadhyaya (1982) translates: “An erroneous or *vyabhicārin* perception [sic!]⁸⁰ is the perception of an object as something which it is not. A right or *avyabhicārin* perception is the perception of an object as it actually is” (15). Simply put, these two sentences describe a realist's correspondence theory of truth, whereby (perceptual) cognition is true and correct insofar as it (specifically, its apparent content) corresponds to objective reality.⁸¹ Cleaning up Gangopadhyaya, this Sanskrit formulation can be rendered in English as “cognition of Y as X”, or in keeping with the translation decision stated above, “appearance of Y [in cognition] as X”. Note that the Sanskrit locative case marks the “Y”, which is an (ostensibly external) object to which cognition corresponds.⁸² In turn, the particle *iti* marks the X, i.e., the apparent content of the experience. In what follows, I will maintain these uses of X and Y, with X emphasizing cognitive content.

Turning now to the individual error theories, it's helpful to start by noting that the latter component X, i.e., that which seems to be the case, is essentially invariant across all the theories. That is, everyone agrees to start with the observation that some X occurs in experience, for example, the apparent snake in the example of the mistaken rope, or the apparent silver in the example of the mistaken conch shell. Where the error theories differentiate themselves is by their answers to the question, What is the *nature* of X as *something different from Y*? The two main types of answer to this question divide along realist and anti-realist lines. The main anti-realist answers to the question include: 1) “X is an unreal entity,” i.e., *asatkhyāti*; and 2) “X is the cognition itself,” i.e., *ātmakhyāti*.⁸³ Both of these views eschew reliance on the external world, but in different ways.

⁷⁹ NBh ad NS 1.1.4 (1997, 11, punctuation mine).

⁸⁰ Gangopadhyaya is here using “perception” in an inappropriately imprecise way, as NS 1.1.4 itself makes clear that “*vyabhicārin* perception” is a contradiction in terms. One should instead interpret the first *yad...tad* pair as referring simply to *jñāna* (“cognition”).

⁸¹ Note that correspondence does not require that cognition itself contain a representative “form” (*sākārajñāna*). Indeed, Nyāya famously subscribes to *nirākāravāda*, the view that cognition has no such form. Instead, cognition, mediated only by the sensory and internal faculties (*indriyāṇi, manas*), puts the experiencing Self (*ātman*) in nearly direct contact with external reality, as long as e.g. faults in the sense faculties do not interfere.

⁸² Adhering more closely to the Sanskrit idiom in NBh, the locative marks the “non-X” in “cognition of non-X as X”. On this function of the locative to indicate the referent of cognition, Sanskrit grammar books, e.g. that of Speyer, unfortunately do not mention verbs of knowing specifically, but it is possible to subsume this under the more general heading of locative in the meaning of “toward which”, “about which”, or “in reference to which”, on which see Speyer's (1973) explanation of the *nimittasaptamī*, §147 (p. 111).

⁸³ Rao (1998) notes that these views, closely associated with Buddhists, may need to be viewed as stereotyped reconstructions by orthodox brahmanical writers (Naiyāyikas, Mīmāṃsakas, Vedāntins, etc.) of views Buddhists tended not to state themselves in such terms (45–58, 144). Perhaps it is for this reason that the

The realist answers, on the other hand, start by assuming a real external object and then proceed to explain how that which appears in cognition fails to correspond to it. Memory is almost invariably involved, but its exact role depends on one's other theoretical commitments.⁸⁴ One important such answer to the question is that 3) “X is the way that Y is appearing differently than normal,” i.e., *anyathākhyāti*. Here, X is still held to be something real, whether a separate object or certain properties thereof, but located in the past and/or at a different location. In turn, the perceiving subject is put in direct touch with this X by memory, as if by a switchboard operator. This is realist in the classical sense that it avoids the nominalist alternative, namely, that X is *merely* a generalized mental feature.⁸⁵

Finally, a fourth answer, still associated with realists but treading quite close to anti-realism,⁸⁶ gives even more weight to memory: 4) “X is something remembered and conflated with Y”. This view is called “non-appearance”, i.e. *akhyāti*⁸⁷, meant in a rather peculiar sense not readily suggested by the label, namely, that the relevant difference (*bheda*) between what are in fact two separate but co-occurring cognitions, one a sensory cognition and one memory, “does not appear” in the experience as it should. In this scenario, each of two cognitions in fact maintains contact with its proper real object — the significance of the view is apparently to maintain this sort of fidelity for all individual cognitions — but somehow, the sensory cognition's object does not appear to the perceiving subject (i.e. the Self), nor does the “pastness” of the memory, nor does the difference between the two cognitions, leading the subject to conflate the available features. On this interpretation, it is especially the failure to grasp the relevant difference (*bheda*) that is considered primary. Alternatively, another way of explaining the same scenario, corresponding with a different reading of the compound, is that “erroneous appearance” (*khyāti*), conventionally understood specifically as “[erroneous] appearance of Y [in cognition] as X”, is denied as ever actually happening in the world, since in this scenario each individual cognition in fact has only its proper object; the confusion is only “downstream”, so to speak. Hence, *akhyāti* can also be taken to mean “[total] lack of [erroneous] appearance [as conventionally understood]”.⁸⁸

exact role of memory is typically not spelled out for these views, although “trace impressions” (*vāsanās*) were undoubtedly involved.

⁸⁴ Cp. Franco's (1984) insightful comment on how Indian philosophical theories of error were not formulated “innocently” but rather in anticipation and support of other doctrines (105).

⁸⁵ See e.g. the explanation of realism vs. nominalism by D. N. Shastri (1976, 47–8).

⁸⁶ Rao (1998) points out multiple times that Jayanta sees this view as being essentially Dharmakīrtian in its anti-realist implications (71, 91).

⁸⁷ Note that in this case the grammar of the compound is different. Whereas in the other cases, one should understand a *tatpuruṣa* with the structure “[erroneous] appearance [by way of] X”, or, if translating *vkhya* as “cognize”, a *madhyamapadalopin* compound like *X-viṣaya-khyāti*, i.e., “[erroneous] cognition whose [internal] object is X”, here, one should understand a simple *karmadhāraya*, i.e., “lack of [conventional erroneous] appearance [in cognition altogether]”, where again, the conventional structure is that non-X appears as X.

⁸⁸ The interpretation of this compound is actually quite complicated; Maṇḍana himself gives three possibilities, on which, see Schmithausen (1965, 240).

Note too that, somewhat in this same way as stated here but with a different target, Bhāsarvajña himself actually uses the same term “*akhyāti*” to refer to an interpretation of *nirālambanavāda* wherein there is no possible object at all, whether real, unreal, or otherwise. In this case, *a-khyāti* might be analyzed as “[erroneous] appearance of nothing [as something else]”, or it might again be read as a repudiation of the conventional error structure, i.e., as “[total] lack of [erroneous] appearance [of Y in cognition as X]” on the

These are the four theories presented at the beginning of VibhrV,⁸⁹ and the explanations above are an attempt to consolidate an actually quite large variety of traditional understandings.⁹⁰ I will not attempt to adjudicate between all possible disagreements here but rather will continue to focus on giving a limited presentation of *khyāti* theories as can help one understand Bhāsarvajña's use of them in NBhū 104–154. Mainly, one should keep in mind that although each theory is usually associated with a particular philosophical school (e.g., Nyāya, Yogācāra, etc.) such associations are neither one-to-one (with a given term always referring to a given school) nor necessarily always reliable representations of any given thinker. Also, it is curious, and arguably fatally flawed, that each theory entertains the conceit that all things grouped together as “error” must share the same nature, since this renders the theories incapable of explaining genuinely different types of error, e.g., those with or without external substrates, or those due to personal or non-personal factors, which

basis that there are no plausible alternatives for Y. I give here the relevant full text of the NBhū where Bhāsarvajña gives this as the first of his eight *khyāti* theories:

tatra pramāṇābhāvāt tāvad **akhyātir** ayuktā, na; pramāṇopapatteḥ / tathā hi —
jalāvabhāsini jñāne tāvat na jalasattāvalambanibhūtāsty abhrāntatvaprasaṁgāt, jalābhāvas
tu na pratibhāty evāto nālambanam, ata eva marīcayo 'pi nālambanam
pratibhāsābhupagame 'pi tadgraḥaṇasyābhrāntatvaprasaṁga iti / toyākāreṇa
marīcigrahaṇam ity apy ayuktam, tadanyatvāt, na hi ghaṭākāreṇa tadanyasya paṭāder
grahaṇam dṛṣṭam, tasmān nirālambanam jalādiviparyayajñānam svapnaviparyayavat iti /
(26, emphasis mine)

By contrast, Bhāsarvajña refers to the view involving conflation of multiple cognitions with the term “smṛtvipramoṣa”. Rao (1998) literally translates the root “(pra)Vmuṣ” in this context as “rob”, in the sense that the memory cognition is “robbed” of its recognition as such, so to speak (95).

⁸⁹ See Schmithausen (1965): “ātmakhyātir asatkhyātir akhyātih khyātir anyathā / parikṣakānām vibhrāntau vivādāt sā vivicyate //” (21). His translation: “Da die Philosophen hinsichtlich des Irrtums verschiedene Meinungen haben — Selbsterscheinen, Erscheinen von Nicht-seiendem, Nichterscheinen und Anderserscheinen —, wollen wir ihm eine Untersuchung widmen” (53).

⁹⁰ Schmithausen (ibid., 233ff.) remains the best resource for starting to understand this variety. That said, there are many further levels of complication, especially with the introduction of the distinction between “Ācārya”- and “Vyākhyāt”-type error theories, in which the further question is asked: Can any factor other than the external object itself — including sense faculties, the mind (*manas*), or environmental features such as illumination and lack of obstruction — be responsible for a given cognition's being erroneous? This further doxographical distinction applies to realists who already assume that error always (!) has a real external object, and as acknowledged by Schmithausen (ibid., 164–65) and exemplified by Franco 1984, it is difficult to use practically. This is perhaps because the same terminology is also (or primarily?) used to make a different doxographical distinction, namely, between those authors who comment directly on Vātsyāyana's Nyāyabhāṣya (*bhāṣyavivaraṇākṛt*), called “Vyākhyātṛs”, and those who comment on Uddyotakara's Nyāyavārtika (*uddiyotakaravivṛtikṛt*), called “Ācāryas”. This idea comes from Cakradhara's “Granthibhaṅga” commentary on Jayanta's Nyāyamañjarī (ibid. 106). On the other hand, the error-theory distinction stems from Jayanta's own discussion, on which, see Gupta (1963, 94ff.) On the interpretation of each term as fundamentally plural and not singular, see Marui (2006). As Schmithausen (1965) also says (165), this distinction apparently did not continue to be used in this latter way for very long. For example, Vācaspatimiśra, who wrote his Tātparyaṭīkā commentary on Uddyotakara's Nyāyavārtika, was not called an “Ācārya” in the contrastive sense of not being a “Vyākhyātṛ”, nor is it clear that Bhāsarvajña meant such a thing when he spoke of either “Ācāryas” or “Vyākhyātṛs” (e.g. at NBhū 139, with my own re-editing, “yad evācāryair uktam: «jñānam svavyatirkirtavedanavedyam, vedyatvāt, rūpādīvat » iti”; or at NBhū 129, “atha ca tatra rūpādimantau devakulaprākārau samyuktāv ity evam pratyayo bhavati, tathā ghaṭādiśv apīti, na; devakulāder apy avayavivābhupagamāt / tamōriṇā tu sāṃkhyābhīprāyena devakulādipratyayaḥ samyogaviṣaya uktaḥ, sarvathā bauddhapakṣe dṛṣṭānto nopapadyata iti jñāpanārtham / na ca sarvavyākhyātṛmatāvirodhena śāstram vyākhyātum śakyate /”; for translations of both, see my Chapter 3 below).

other distinctions were also clearly acknowledged by these same authors.⁹¹ That said, let us compare the statements of Maṇḍana and Bhāsarvajña.

Maṇḍana (himself most closely associated with Bhāṭṭa Mīmāṃsā and Śabdādvaita), in keeping with standard polemical practice, presents his first three *khyāti* options as *pūrvapakṣas*, and he also associates them with particular schools of thought: 1) *ātmakhyāti*, associated with Yogācāra (but actually tending to entail the next view)⁹²; 2) *asatkhyāti*, associated with a non-Nāgārjunian⁹³ “Madhyamaka” (and also Advaita Vedānta); and 3) *akhyāti*, associated with Prābhākara Mīmāṃsā.

Bhāsarvajña, for his part, presents seven opposing *khyāti* options,⁹⁴ of which the most important here are: 1) a first “*akhyāti*”, associated with *nirālambanavāda*; 2) *asatkhyāti*, seemingly associated with (again, a non-Nāgārjunian) *sūnyavāda*;⁹⁵ 5) *smṛtivipramoṣa* (= the two-cognition “*akhyāti*” view described above), which we can definitely associate with Prābhākara Mīmāṃsā;⁹⁶ and 6) *ātmakhyāti*, associated with Yogācāra or more properly, Vijñānavāda.

After refuting their respective rival views, both Maṇḍana and Bhāsarvajña arrive at basically the same⁹⁷ conclusion (also shared by e.g. Jayantabhaṭṭa): Maṇḍana's “*khyātir anyathā*”⁹⁸ or

⁹¹ For such sub-classification of error, see e.g. NBhū 25,19ff. “*nimittabhedenāpy anekadhā viparyayo bhidyate...*” For another such negative assessment of the attempt to provide a one-size-fits-all solution for error, see Franco (1984, 121).

⁹² See Schmithausen (1965, 232–33).

⁹³ See Schmithausen (*ibid.*), whom I quote at length:

Zu Mandanas Darstellung der Madhyamaka-Lehre wäre zu bemerken, daß die ontologische Interpretation, in der sie bei ihm erscheint, sicherlich der Intention Nāgārjunas selbst nicht entspricht. Nach Mandanas Mādhyamika scheint dem Irrtumsobjekt (d. h. dem dem Irrtum in Wahrheit zugrunde liegenden „Sachverhalt“) der ontologische Status des Nichtseins zuzukommen. Nāgārjuna hingegen lehnt für die Wahrheit alle ontologischen Prädikate — Sein, Nichtsein, beides zugleich und keines von beiden — ab. Wenn er von Nichtsein spricht, so meint er nur: Inadäquatheit des ontologischen Prädikates „Sein“. Ob und inwieweit die spätere Madhyamaka-Schule der Lehre Nāgārjunas eine ontologische Wendung gegeben hat, vermag ich nicht zu sagen. (235)

⁹⁴ For more on Bhāsarvajña's take on error theories, see Joshi (1986, ch. 7).

⁹⁵ Bhāsarvajña does not use the term “Madhyamaka”, nor associate his main opponents (Dharmakīrti et al.) with it. On the other hand, what is clear is that Bhāsarvajña sees this *asatkhyāti* view as contrary to the view of his main opponent, the “Vijñānavādin”, whom he also forbids from accepting the full doctrine of emptiness, as far as Bhāsarvajña understands it in the NBhū: “*athāvidyamānaivānekākāratāvabhāti, na; sarvaśūnya-tāvakāśaprasyāngāt / tatra ca doṣa uktaḥ / asatkhyātivādaś ca syāt / sa ca bhavataḥ svakṛtāntavirodhī /*” (120).

⁹⁶ Bhāsarvajña himself does not make this association, but his presentation of the view is extensive and matches up with what is found e.g. in Maṇḍana.

⁹⁷ Rao (1998) notably distinguishes between *anyathā-* and *viparitakhyāti*, associating them with Nyāya and Bhāṭṭa Mīmāṃsā, respectively, but it is clear that he is fighting an uphill battle in doing so, since he must go against the doxographical explanations of Jayanta (63) and I would also add Bhāsarvajña. It's also not clear from Rao's presentation of Maṇḍana (*ibid.*, 104–109) that he cares to reconcile with the actual text of VibhrV at all. Instead, it seems that Rao's purpose in distinguishing these two terms is for the sake of motivating a historical narrative in which the Bhāṭṭa Mīmāṃsā view evolves out of the Naiyāyika view and then leads in turn to the Prābhākara Mīmāṃsā view of “*akhyāti*” (see e.g., *ibid.*, 71). However, in my opinion, it is not useful to think in terms of a distinct Bhāṭṭa Mīmāṃsā view, at least not at the time of Bhāsarvajña. Rao namely relies on Pārthaśārathi (ca. 10th c.) to flesh out this view, just as he relies on Mokṣākaragupta (sometime between 1050–1202) to elaborate the Buddhist views. Perhaps Bhāsarvajña knew Pārthaśārathi's work, but I am not yet

more standardly “*anyathākhyāti*”, which is the same as Bhāsarvajña's *viparītakhyāti*. Both “*anyathā*” and “*viparīta*” are here to be read as “otherwise” or “contrary” in the specific sense of describing the *form with which* an object appears and is apprehended *relative* to its own form. For his part, Bhāsarvajña specifically speaks of the superimposition (*āropana*) of an improper form onto the underlying external object, but he does not clarify the source of the alien form in his view, contenting himself instead with a refutation of his Buddhist opponent's view. Thus, despite his opposition to the Prabhākara view and its emphasis on the role of memory, his own realist view remains vulnerable to the possibility that the imposed form is mental in nature, again specifically in the form of memory, which threatens the objectivity of the error process in a way that casts doubt on all cognitions. As noted by others, it was exactly such a worry about the particular role of memory and what this implies about the active participation of the mind in even valid perceptual processes that motivated internal debate on this topic among realists.⁹⁹ I will refrain from entering further into the debate at this time, but a further reckoning of Bhāsarvajña in relation to these doxographical categories could certainly be the topic of a future study.

We should also say a word here about *ālambana* or “object support”, since it has already been mentioned by way of *nirālambanavāda*, and because I have above introduced a distinction of “Y”, as an external object referent, and “X”, as the apparent phenomenal content. As problematized by Dignāga in his brief Ālambanaparikṣā and Vṛtti thereon, the object support (*ālambana*, or more properly *ālambanapratyaya*) is that causal factor (*pratyaya*) which would satisfy two conditions: being the thing that is causally responsible for the arising of cognition (*kāraṇatva*, i.e., “*yato jñānam utpadyate, tat*”), and being that which the cognition has as its form, i.e., its phenomenal content (*tadākāratā, tadābhata*, i.e., “*yaj jñāne 'rthatayāvabhāsate, tat*”), or in other words, its phenomenal object (*viśaya, artha*). Both atoms and aggregates thereof (*samghāta*) are considered as candidate object supports, but neither satisfies. On the one hand, atoms do not satisfy the second condition, since we believe ourselves to perceive pots and cloths rather than atoms. On the other, aggregates are denied as being casually efficacious, since they are, according to the Dignāga,

aware of any evidence for this. Meanwhile, for someone like myself who is interested primarily in views leading up Bhāsarvajña, Schmithausen (1965) agrees that the “frequently found claim” (häufig anzutreffende Behauptung) that the Bhāṭṭa Mīmāṃsā and Nyāya error theories differ in that they are called *viparīta* and *anyathā*, respectively, is, at least “for the older period” (für die ältere Zeit) of Maṇḍana (i.e., including the times of Kumārila and Uddyotakara), “inappropriate” (unzutreffend) (218n151). Thus, I will not engage here with whatever internal developments might have taken place later within Mīmāṃsā. For the dating of Pārthaśārathi and Mokṣākaragupta above, see Kataoka (2011, 18) and Kajiyama (1966, 1), respectively.

⁹⁸ On the further option of writing “*anyathā khyāti*”, in that order and with an extra space, and how this relates to other phrases denoting this view, cp. Schmithausen (1965, 218n151).

⁹⁹ See the above footnote 90 on the Vyākhyāṭ-Ācārya distinction. Franco (1984) provides the most in-depth philosophical exploration of the development of several stages on each side of this debate, which I try to quickly summarize here: An early, ultra-realistic view tries to deny the mind any role in error by insisting that the external object itself changes during error. Several further developments (associated with the “Ācārya” label) allowed memory a small role to stimulate apprehension of other real objects and resulted in a kind of cognitive conflation on the model of doubt (*saṃśaya*), but the appearance of other objects' properties or of the objects in their entirety is still maintained, albeit implausibly. Lastly, a parallel development (associated with the “Vyākhyāṭ” label) attempted to give memory more of a role, allowing the mind to connect to (still real) past objects, and Prabhākara delivered the final touch when he specified the partial “loss” of specific features in the recollection process (*smṛtipramoṣa*) in combination with a separate sensory cognition that co-occurs, thereby supposedly preserving the fidelity of any given individual cognition. However, none of these solutions comes at all close to being satisfying, which only helps Jayarāśi's deconstructive project.

not substantially real (*dravyato'sat*).¹⁰⁰ Dignāga concludes in the end that it is in fact only cognition alone that can play both roles, namely through its primordially intertwined subjective and objective aspects, which are associated with the “sense faculty in the form of active capacity” (*śaktirūpam indriyam*) and the object (*viṣaya*), respectively, and he thereby shows that, insofar as one accepts his reductive analysis of causal efficacy, the search for any external object support must fail. Importantly, Dignāga's use of the words *artha*, *viṣaya*, *gocara*, and ultimately *ālambana* falls decisively in the direction of being about phenomena as experienced.

Against this, realist Bhāsarvajñā chooses an opposite default association for the words *artha*, *viṣaya*, and *ālambana*,¹⁰¹ namely, the external real object, i.e., “Y”. By contrast, for them, the “X” of phenomenal appearance is simply that alien form which has been superimposed.¹⁰² Interestingly, this allows Bhāsarvajñā to insist that, e.g., in the situation of mistaking a faraway post for a man due to lack of sufficient visible detail, what actually “appears” or “manifests itself” (*avabhāsate*) in the cognition is the post(!), not the man, despite the fact that one cannot realize it in the moment.¹⁰³ We must therefore exercise

¹⁰⁰ Read in the reconstructed ĀPV: “*indriyavaikalyād dvicandradarśanasya tadābhatve 'pi na tasya viṣayo 'sti / tadvat saṃghātah dravyato 'sattvena akāraṇatvāt nālambanam /*” (1942, 4, punctuation mine). My translation: “Despite the fact that the apprehension of two moons has that appearance due to a deficiency in the sense faculty, it [the double moon] is not (*na...asti*) the object of that [apprehension]. Similarly, the aggregate [of atoms], since it is not substantially real, is not a cause [of the apprehension of the object], so it is not the object support.”

¹⁰¹ In the NBHū: “*jñeyam, ālambanam, viṣayah, arthah, pratyayāvabhāsīti paryāyāḥ*” (145). Cp. also footnote 534 in the translation.

¹⁰² See e.g. “*āropitenāpy ākāreṇāvabhāsate*” at NBHū 142,8.

¹⁰³ See NBHū 31,21ff. Bhāsarvajñā in fact anticipates a likely objection on the part of an opponent who uses the root *vbhās* in the way an English speaker is predisposed to use “appear”, i.e., with the apparent phenomenal content as the grammatical subject. I give Joshi's (1986) translation in full (bold highlighting mine):

Again, it may be urged that it is not proper to say that a pillar which is not **manifested** in the cognition at all is the object of the cognition which **manifests** a man. And if this be admitted, then there would arise the contingency of everything being in disorder - that is, any knowledge could have just anything as its object. The answer to this is that it is not so; as a matter of fact it is the post that is actually **cognised** in the cognition “This is a man”, and not the man. To regard it as knowledge **manifesting** a man is also error, as it actually **manifests** a post. To wit, after the rise of the sublative cognition the person links up his cognition thus: “This post appeared to me as man”. Moreover, the fact that some mistake fake substances as genuine can also be explained only by the theory of Viparītakhyāti. And persons are so much illusioined that they take up such fake substances in the hand and tell others: “I have found or purchased this silver or gold”. Therefore, it is proper to conclude that post or the like is determined as man or the like in an erroneous cognition due to the non-apprehension of its real nature and due to demerit etc. Therefore, Viparītakhyāti is the only theory which can be acceptable. (223–24)

Joshi's translation is basically word-for-word, except for the last sentence, which has been added. However, Joshi somewhat misleadingly uses the English verbs “manifest” and “cognize” transitively (highlighted in bold here) to reflect the invariably intransitive Sanskrit verb *vbhās*. For the full alignment of Joshi's translation to the Sanskrit, see Appendix 1D (online at https://github.com/tylerneill/align_nbhu_pratyaksa).

Bhāsarvajñā's view here is different than that of earlier Naiyāyikas and can be seen, as explained by Franco (1984), as a development in response to the Ācārya-Vyākhyātṛ debate (117–18). His point is actually a good one, albeit perhaps too strongly put: In the time before we realize our error, we say that the man appears, but after we realize the error, we say that the post appeared “as” a man, and we consider the second assessment to be true and the first one false. But is it an “error”, as Bhāsarvajñā further claims, to even think or say that “this is a cognition in which a man appears” (*puruṣāvabhāsijñānam etad ity ayam api bhramah* — read only

care in using English words like “seem” or “appear”, which we are liable to want to associate closely with phenomenal content, to translate Sanskrit words which Bhāsarvajña very clearly wants to use to describe the external fact-of-the-matter in his post-hoc analysis of error. Specifically, one might better distinguish in English between “appear” (i.e., merely seem to occur) and “make an appearance” (i.e., actually occur but under some guise). To continue the same example above, it is the post that is in fact underlyingly cognized (*pratīyate*), albeit with a superimposed form, and for this reason, according to Bhāsarvajña at least, it can very simply be concluded to be the object support (*ālambana*), if only post-hoc. That is, Bhāsarvajña obviously does not find Dignāga's problematization of *ālambana* in terms of causal efficacy convincing, because for a realist like himself, it is simply not true that an ontological whole (*avayavin*) is, as Dignāga says about the aggregate of atoms, “substantially unreal” (*dravyato'sat*).

A last word remains to be said about correspondence. As was stated above, the realist Nyāya view assumes both an objective fact of the matter for any given situation and that thoughts can directly correspond to that reality, without representative cognitive forms. The Sanskrit word *samvāda*, in turn, can describe exactly this correspondence relation between cognition and reality. Similarly, *visamvāda* can indicate mismatch between those two things. On the other hand, one could also believe that, although there may indeed be a fact of the matter beyond the human mind, our conceptual thoughts can never fully capture it, and so, there is no scope for practical recourse to a correspondence theory of truth, which assumes such a direct relationship. Instead, insofar as a given thought about an object leads to successful pragmatic action with respect to such an object, then it can be described as “non-disagreeing” (*avismvādin*) in that it does not disappoint one's expectation.¹⁰⁴ These two different understandings of correspondence/agreement (*samvāda*) depend on respectively different theories of error. The first, realist theory relates thoughts, even erroneous ones, to real external objects, while the second, anti-realist theory gives up on grounding thoughts in real external objects, instead contenting itself with thoughts that are all erroneous to varying degrees, failing to fully reflect reality, but nevertheless capable of leading to successful practical action in certain circumstances. The latter view does not accept the correspondence theory of truth outlined above, but it does fundamentally rely on it in that it always responds to it as the intuitive starting point and rejects it. Furthermore, although such an anti-realist view might be thought to in turn imply some kind of coherentist theory of truth, a positive case for this is not very forthcoming among Buddhist philosophers of this period.

one *iti* with V, f. 22v13)? This seems like an attempt to redefine how a particular vocabulary word should be used, and in particular against common practice, but even if we do this, we will still need another word to describe the subjective experience prior to the realization of error. Finally, also note here that the perhaps Buddhist-sounding phrase “is determined” (*adhyavasīyate*) does in fact simply continue the NBh use of *vyavasīo*, e.g. on p. 275 (ad NS 4.2.35), “*sthāṇau puruṣo 'yam iti vyavasāyo mithyopalabdhīḥ atasmiṁs tad iti jñānam*”, *et passim*.

¹⁰⁴ See e.g. (Franco and Notake 2014, 22) on the basic idea of *abhiprāyāvisamvāda*.

Difference, Negation, Co-Apprehension, Variegation, and Non-Dualism (*bheda*, *pratiṣedha*, *sahopalambha*, *citratā*, *advaita*)

The most important kind of error discussed in the present debate about the composite whole concerns the appearance of difference (*bhedapratibhāsa*), but there are numerous subtle details that need to be carefully distinguished. Firstly, the particular inferential locus (*pakṣa*) concerning which the property of difference either does or does not apply varies throughout the debate. Second, the particular kind of difference meant varies between numerical and qualitative, although the authors involved are not always so helpful as to make this explicit. And third, the particular way in which the truth of the apparent difference is denied, which is to say, how exactly difference is negated, is also part of properly understanding a given position. I will address each of these three issues in turn.

First, there are three main inferential locuses to which difference or the lack thereof may apply in this debate. The first is the joint pair of an object (often the color blue, *nīla*) and the cognition thereof (*jñāna*, *dhi*, etc.), and I will refer to the putative difference between these two as “subject-object difference”. The second locus to which difference may or may not apply is constituted by the individual colors in a variegated (*citra*) object. I'll call this “object-object difference”. And finally, the third locus is the broadest one possible, namely, “everything” (*sarva*), and I will call this simply “all difference whatsoever”. The significance of these options will become clearer shortly.

Second, one can distinguish between numerical and qualitative difference in just the same way that one can distinguish between numerical and qualitative identity. Numerical identity refers to ontological uniqueness. For example, a husband, father, and son, can, despite the different labels indicating different perspectives, all be numerically identical in the sense of being the self-same person. By contrast, numerical difference can be understood as the lack of such identity. For example, two “identical” twins are actually numerically distinct even if they are qualitatively the same in many ways due to sharing the same set of genes. Aside from adventitious properties like names, numerically identical items should have all the same properties, i.e., be qualitatively identical, too. But things are not always so clear-cut. For example, to take the proverbial example of the coin, while it would seem that its two sides are numerically distinct, in that they are not only perceived as two things that can be named differently but also differ qualitatively in their various properties, it is also true, from another important perspective, that they are two aspects of a single thing. The sides seem therefore to be neither numerically identical nor numerically different in full, unqualified senses. Rather, they are both different and identical in certain qualified senses.

Third, there are two types of negation distinguished in Sanskrit philosophy: implicative negation (*paryudāsapratiṣedha*) and non-implicative negation (*prasajyapratiṣedha*).¹⁰⁵ To

¹⁰⁵ These terms can be literally thought of as “negation by exclusion (*paryudāsa*) [of one alternative in favor of another]” and “negation [also] that something [else] is entailed (*prasajya*)” respectively. In other words, the first applies on the syntactic level of terms, negating one element but implying a corresponding positive assertion, whereas the second applies on the level of the sentence, negating the specific combined effect of an entire utterance without any further entailments whatsoever. See also e.g. Iwata's (1993) study on *prasāṅga*, where he explains these two types of negation as “affirmation of something that is different from the negated term” and “pure negation”, respectively (550).

first explain implicative negation: In a context where only a certain set of discrete, mutually exclusive possibilities obtain, let's say A and B, the negation of A can lead us, through a simple process of elimination, to affirm B. That is, not-A implies B. On the other hand, regarding non-implicative negation, there are many other situations where such binary distinctions are not appropriate, and the negation of A may not be sufficient justification for affirming any other particular possibility or possibilities. That is, not-A may just mean not-A, nothing more. Whether one or the other of these two types of negation applies in a given situation, as well as whether a given person's statement is meant as one or the other type, can easily become a point of contention between different parties.

The current polemical debate involves discussion of multiple Buddhist views which seem to differ on all three of the above points, as expertly documented in Iwata's excellent study of the argument from "invariable co-apprehension" (*sahopalambhaniyama*),¹⁰⁶ which is pivotal for the current NBhū passage. The basic "co-apprehension" argument by Dharmakīrti calls attention to the empirical fact that a given cognitive object and the cognition thereof can only ever be observed together, and Dharmakīrti concluded from this that the property of "non-difference" (*abheda*) applies to the two. But even Dharmakīrti's commentators disagreed about the meaning of this "non-difference", which had further implications for the debate about whether cognition possesses the form (*ākāra*) of the object we come to know (*sākāravāda*) or not (*nirākāravāda*). Dharmottara, for example, took the more conservative position that the negation of difference was non-implicative, meaning that it only denied the *total* difference between the two and did *not* amount to an affirmation of their *total non-difference* in the sense of numerical identity. The maneuvering room afforded by this move permitted him to allot different qualitative properties to the subject and object forms that he asserted both belonged to cognition, namely claiming that the object form was unreal (*alīka*) whereas the subject form was real (*satya*).

On the other hand, numerous others, especially including Prajñākaragupta, seem to have opted for the stronger reading, namely that "non-different" should in fact be taken to mean "one and the same" (*eka*). This numerical identity between the two forms thus implied that they must have the same exact qualities, and indeed Prajñākaragupta considered both forms to, for example, be equally real (*satya*). In other words, in terms of the initial interpretive step, Dharmottara saw Dharmakīrti's "non-difference" in the "invariable co-apprehension" argument as a non-implicative negation (*prasajyapratīṣedha*), whereas Prajñākaragupta saw it as more of an implicative negation (*paryudāsapratīṣedha*).

As Iwata (ibid.) notes, this stronger stance likely goes beyond what Dharmakīrti himself intended to prove with the co-apprehension argument (I,250). In fact though, Iwata also acknowledges that Prajñākaragupta himself was also never fully explicit about an exclusively implicative reading of "non-difference" (*abheda*). That said, one can "observe in him a certain tendency toward understanding *abheda* as 'oneness'" (ibid., I,144). Regardless of how strongly Prajñākaragupta himself did in fact intend to communicate this, his pupil Ravigupta and then also Bhāsarvajña, at the very least, do seem to have read him this way.

¹⁰⁶ What follows relies heavily on Iwata's (1991) analysis.

Since Bhāsarvajña bases much of his discussion on Prajñākaragupta's stronger stance and the vulnerabilities it entails, this is worth a closer look, including the closely related issue of variegation (*citratā*). In PV 3.220–21, Dharmakīrti states that the blue color in the cognition of something variegated (*nīlādiś citravijñāne*), understood as a feature of the cognition (*jñānopādhi*), cannot be experienced independently of the other colors (*ananyabhāg aśakyadarśanah*), such as yellow. For, he says, as soon as one attempts to analyze the blue in this way (*tam...vivecayan*), one has necessarily lost focus on the cognition as it had appeared, namely as momentarily present and whole, and one has instead “fallen” into thinking about an independent object (*pataty arthe*), which is an artificial construct.¹⁰⁷ In order to emphasize the unitary nature of the momentary cognition, as opposed to that of the external whole object which he does not support, Dharmakīrti asserts that the variegated form “in” i.e., *internal to cognition* (*citrākārasya cetasi*), should be considered as “one” (*ekabhāvah syāt*). This is a second argument which shares a roughly parallel structure with the co-apprehension argument, and which Prajñākaragupta crucially proceeded to conflate with it. In Iwata's shorthand:

- | | | | |
|--|----|-----------------------------|-----------------|
| 1) For cognition-blue applies: invariable co-apprehension together | >> | non-difference. | |
| <i>(dhī, nīla)</i> | | <i>(sahopalambhaniyama)</i> | <i>(abhedā)</i> |
| 2) For blue-yellow applies: inability to be distinguished | >> | oneness. | |
| <i>(nīla, pīta)</i> | | <i>(aśakyavivecana)</i> | <i>(ekatā)</i> |

Whereas the first argument involves a negation as the target property (*sādhyadharma*), leaving open whether to interpret this as implicative or non-implicative negation as well as whether to understand the relevant difference and/or identity in qualified or unqualified senses, the second argument involves a positive target property and is therefore comparatively simpler; it is only the reason property of the second argument which involves a negation, the nature of which is not disputed in the same way.¹⁰⁸ And finally, note that the two inferences have distinct locuses (*pakṣas*), in that the first argument is ultimately concerned with subject-object difference or the lack thereof, whereas the second is concerned with object-object difference or the lack thereof.

Although Dharmakīrti left these two arguments distinct, it seems that Prajñākaragupta did not, instead appearing to have transferred the unity-implying structure from the variegation, i.e., object-object context to the subject-object context.¹⁰⁹ As Iwata suggests, the larger function of the co-apprehension argument thus came to differ for these two thinkers. For Dharmakīrti, the conclusion that subject and object are non-different is meant to support the idea that cognition has two forms (subject and object), which itself becomes justification for asserting that cognition knows only itself (*svasaṃvedana*), which finally can

¹⁰⁷ For this interpretation, see both Dunne (2004, 410–11) and Iwata (1991, I,59ff.).

¹⁰⁸ In the case of inability to be distinguished, there is no readily corresponding positive counterpart as in the case of non-difference and oneness. Nor is the numerical/qualitative distinction relevant for qualifying in what sense the reason property is meant. Rather, what needs to be carefully qualified in this case is the locus (*pakṣa*) itself; as Iwata explains (*ibid.* I,59ff.), it is the *inner* blue and yellow in a momentary cognition that cannot be distinguished from each other, *not* the blue and yellow understand as external objects, the latter of which can in fact (albeit only in a relatively true sense) be so distinguished.

¹⁰⁹ In Iwata's (*ibid.*) words, Prajñākaragupta “interprets” the argument “*sahopalambhaniyama>>abhedā*” (ad PV 3.387 “*sakṛt saṃvedyamānasya*”) in (the narrower) terms of “*aśakyavivecana>>eka*” (I,57, I,72).

(perhaps) be used to justify full subject idealism, wherein external objects do not exist.¹¹⁰ On the other hand, Prajñākaragupta used cognition's self-awareness (*svasamvēdāna*) as *justification* for why cognition cannot be analyzed, which in turn leads to the conclusion that its components are numerically identical. That is, the directionality of proof was reversed. Crucially, too, Prajñākaragupta proceeds to treat all components of cognition equally, whether subject-object or object-object. That is, he seems to ignore the specific variegation context in which Dharmakīrti made the original “*aśakyavivecana>>eka*” argument, and he also seems to ignore the difference between the *aśakyavivecana* and *sahopalambhāniyama* empirical observations — the large range of possible interpretations of the word *saha* alone indicates that they are not necessarily the same¹¹¹ — and furthermore, he simply assumes a certain implicative understanding of “non-difference”. In sum, for Prajñākaragupta, cognition's self-awareness is taken to be the underlying reason why components of cognition cannot be analyzed / are invariably co-apprehended, which then supports the non-difference / unity of those components, whether they are the various object components in a cognition of something variegated or the cognition's subject and object forms.

That is, rather than driving toward self-awareness and subject idealism as conclusions, Prajñākaragupta drives toward the oneness of things. For this reason, the third, extremely broad type of difference comes into play. Namely, most any complex cognition can be interpreted as variegated (*citra*), not just one involving colors. Most importantly, the distinction into subject and object can be regarded as a kind of variegation.¹¹² Ostensibly, however, also other experiences with multiple components, such as one including multiple sense impressions at once, could also be considered as variegated. In turn, if the components of a given variegated cognition cannot be analyzed — at least within that cognition; outside of which we cannot say they really exist in the same way — and so are asserted to be numerically one, and as soon as there is also a difficulty in proving the difference of any two given cognitions, then all things whatsoever seem to become one, and for all intents and purposes, we have arrived at monism, i.e., the claim that there exists only one thing and that all apparently different things are part of it. In other words, every known distinction, between any two things whatsoever, is “really” false. This is naturally extremely counter-intuitive, and the negations of subject-object and (cognition-internal!) object-object difference come to seem tame by comparison. Yet we have also just seen that, depending on how the above-mentioned claims about co-apprehension and so on are interpreted and argued for, these may be viewed as inevitably tending toward this most extreme conclusion.

It is also worth noting here that such a universal claim about the falsity of error will necessitate a particular ontological status for difference itself as well as a certain theory of error. Namely, while a realist like Bhāsarvajīna would allow that it might be possible for an appearance of e.g. numerical difference to be falsely superimposed in certain cases, for example, due to an obstruction placed just so, this relies on the fact that, in the Vaiśeṣika

¹¹⁰ On the distinction between subject, object, and transcendental idealisms, see e.g. D. N. Shastri (1976, 39ff.)

¹¹¹ See Iwata (ibid.), pp. I,66ff.

¹¹² The crucial sentence in PVA “*grāhyagrāhakanilādyākārā citrā buddhir ekaiveti citrādvaitam eva*” (290,12–13) supports this insofar as the compound *grāhyagrāhakanilādi* is to be interpreted as a *dvandva* (*grāhyagrāhakam ca nilādi ca*) rather than as a *karmadhāraya* (*grāhyagrāhakam eva nilādi*), on which see Iwata's (1991) argument based on the Tibetan translation (II,58n55).

ontology, difference or separateness (*prthaktva*) is a real quality¹¹³ that is actually perceived directly at times. Thus, not only is the object that is mistaken ("Y") real, but also the erroneously superimposed property ("X", here: difference) is real. By contrast, for the Buddhist, it would be difficult to uphold the claim that difference exists somewhere in the world but is never once truly apprehended. Rather, the claim that all numerical difference is false seems to imply that difference itself is a non-entity (*asat*), which has never once existed, like a flower growing in the sky. In other words, the erroneous cognition of difference involves the appearance of something unreal (*asatkhyāti*). In reference to the more limited original subject-object difference, i.e., that between the apprehended and apprehending forms of cognition (*grāhyagrāhakākārau*), Dharmakīrti explains that it is ignorance (*vidyā*), working through mental traces (*vāsanās*), which leads all non-enlightened minds to project an innate idea of this difference onto perceptual experience. Ostensibly, Prajñākaragupta would have to resort to a similar explanation to explain how *all* projection of difference whatsoever is also only a conceptual construction. But already this takes one so far into non-dual idealism that it becomes extremely difficult to provide systematic philosophical explanation of anything else at all.

To the extent that such debate involves inherently relative words like "difference" (*bheda*) used without proper qualification, equivocation is inevitable, and dialecticians will be able to bend such ambiguities in favor of their own preferred interpretations. In this case, the original ambiguity was in Dharmakīrti's formulation of the co-apprehension argument, and Prajñākaragupta's development thereof into new and bold directions created a perfect opportunity for a polemicist like Bhāsarvajña to come along later and speak to "a" problematic Buddhist opponent of his own devising. In general, the history of Indian philosophy is punctuated by efforts to obtain more clarity on just such important questions of qualified difference and non-difference,¹¹⁴ but unfortunately, in the present Sanskrit debate, one most often finds only a simple word for "different" (*bhinna*, *vyatirikta*, etc.) or "non-different", as the case may be, which makes reading a given argument in isolation extremely difficult.

The doctrine of "mind-only" (*vijñaptimātratā*)

We have already mentioned "subject idealism" a number of times. This roughly translates to the doctrine of "mind-" or "consciousness-only" in Indian philosophy (*vijñaptimātratā*, also *vijñānavāda*)¹¹⁵, which states that not only can phenomenal objects of our experience not be experienced apart from cognition, but that they do not exist outside the mind at all.¹¹⁶

¹¹³ For Bhāsarvajña, separateness can actually be reduced to plurality, where plurality is non-oneness, but this does not change anything here. See Joshi (1986, 524ff.)

¹¹⁴ For example, in Vedānta, there was debate between Advaita Vedāntins (associated with Śaṅkara) and Dvaita Vedāntins (associated with Madhvācārya), who argued for the extreme positions that the personal Self (*ātman*) is completely identical with or completely separate from the ultimate ground of reality (*brahman*), respectively. Between these, Viśiṣṭādvaita Vedāntins (associated with Rāmānujācārya) and Bhedābheda Vedāntins (associated with Bhāskara, among others) argued carefully for subtly more qualified understandings of the difference between these two entities. See e.g. Nicholson's article "Bhedābheda" (IEP, accessed Dec. 12, 2021).

¹¹⁵ Silk 2018 also translates *vijñapti* just as "manifestation" (*passim*).

¹¹⁶ For all its historical importance, the doctrine is not found in the current passage in any real positive detail. For that, see La Vallée Poussin (1928).

Recent research has explained how Buddhist Yogācāra thought included both types of claim regarding the question of whether thoughts relate to external objects.¹¹⁷ Effectively, in the present context, the way the idea is presented is essentially as a rejection of the more intuitive, realist starting point that our thoughts are directly about completely separate objects in an external world. Since (this minimal argument goes) no evidence for such completely separate existence can stand up to scrutiny, therefore we are not justified in maintaining the existence of an external world. If this absence of evidence were the entire argument, it would not constitute proper evidence of absence. However, we do in fact also see positive evidence presented to the same effect, in the form of arguments that show that the whole (*avayavin*) and atoms are impossible as conventionally understood.

We can and should of course scrutinize the logical coherence of such views. However, one can also take a different approach of putting practical soteriological concerns more in the foreground, which may help us to understand why a given burden of proof may seem to lie differently for the Naiyāyika realist and the anti-realist Buddhist, especially including for this theory of “consciousness-only”. Eltschinger and Ratié are some of the strongest voices in this regard, helping direct attention back to the central questions of Self (*ātman*) and the deeply felt belief therein (*ātmadrṣṭi*),¹¹⁸ and it is no doubt the opposite doctrine of no-self (*anātman*) which lies behind further Buddhist theories about objects being empty (*śūnya*) of such projected generalities (*sāmānya*) as inherent essence (*ātman*, *svabhāva*, *svarūpa*). The Naiyāyika does of course also have soteriological goals in mind, e.g., as clearly outlined in NS 1.1.1; the difference is mainly that the realist's goals are to be pursued without the need for overturning such default intuitions as belief in self as an enduring entity or about external objects, for example by way of a meta-philosophical framework like the two truths.

“Two Truths” and Theoretical Cost-Benefit (*samvṛti*, *paramārtha*, *yogakṣema*)

To the question of how one can cultivate such a counter-intuitive perspective (with corresponding attitude and at least sometime consequent actions) as that, e.g., subject-object difference is not fully true as it seems, the typical Buddhist answer is to accept several levels of truth. How many levels there are and whether they are hierarchically progressive or complementary would theoretically be further open questions, but in practice, one most often finds a simple structure of two levels, one higher, and one lower.¹¹⁹ This is the much-discussed theory of “two truths” (*satyadvaya*), which originated in Buddhist thought and was later adopted into Vedānta.¹²⁰

The theory of two truths likely originated in the need to interpret seemingly contradictory statements, such as the Buddha's sometimes talking unproblematically about a Self (*ātman*)

¹¹⁷ See e.g. Kellner and Taber 2014 as well as Kellner 2017 on various readings of Vasubandhu's and Dharmakīrti's idealisms, including the extent to which the latter could or could not prove nonexistence on the basis of imperceptibility.

¹¹⁸ See e.g. Eltschinger (2009; 2010) Eltschinger and Ratié (2013) for good examples.

¹¹⁹ On the number of levels, cp. footnote 74 above.

¹²⁰ The literature on this topic is virtually endless, but because NBhū 104–154 does not give it any explicit treatment, I won't go into detail here. As mentioned earlier, I like the 2011 volume “Moonshadows” by the “Cowherds” as an interesting survey of important problems. The volume by Sprung (1973) is old but still worth a look. Most relevant for the present material, however, given Bhāsarvajña's specific treatment of Prajñākaragupta on the topic of the validity of the Vedas (*vedaprāmāṇya*), is the study by Kobayashi (2011).

and other times seeming to deny its existence.¹²¹ Nevertheless, it does also seem clear that some Buddhist writers, such as Dignāga, did in fact end up using it to ascribe positive ontological status to some entities while denying it to others.¹²² By designating one alternative description as “more real” — usually “ultimately” real (*paramārtha*) — one is effectively endorsing that description as having some kind of hidden importance, usually of the soteriological variety. By contrast, by designating something as “real” only in a limited, relative sense — usually via the idea of “concealment” (*samvṛti*)¹²³ — one is cautioning against engaging with that thing in an unguarded way, as one's normal instincts and habits might guide one to do. In certain schools of thought both descriptions (or “levels”) are ascribed irreducible importance — the “less real” is the only way for us to live our actual lives, whereas the “more real” designates some ideal to strive for — while others are more clearly pejorative in their treatment of the “less real”, ostensibly for rhetorical effect, but arguably to their philosophical detriment.

Reflecting the theory's epexegetical origins, there is also a relation between imagining such different “levels of reality” and carefully using qualified language to designate various aspects of complex phenomena. While the concepts of generality and specificity (*sāmānya*, *vīśeṣa*) in Vaiśeṣika thought offer one way of approaching the topic of qualification from an ontological perspective, and while later Navya Nyāya offers another with its additional jargon of “delimitation” (*vyavavchid*) and “characterization” (*nivṛūp*), it is arguably Jaina philosophy that provided the most effective framework for appreciating this difference. The latter prepared not only an ontological theory of “many-sidedness” (*anekāntavāda*) but also a corresponding normative linguistic theory for speaking about such complex reals in carefully qualified terms (*syādvāda*).¹²⁴ In fact, in the currently studied passage of NBhū 104–154, there are several instances of phrases reminiscent of this Jaina language of qualification being used to refer to the Buddhist's different “levels” on which, or “manners”

¹²¹ See e.g. Warder (1980) on the relation of the terms *samvṛti* and *paramārtha* to the earlier distinction of whether statements are to-be-interpreted (*neyārtha*) or already definitive (*nītārtha*), respectively (146ff.)

¹²² See e.g. Dignāga's use of “*dravyasat*” in the Ālambanaparīkṣā to affirm the reality of atoms and to deny it to the aggregate. The distinction between “true” (usually *satya*) and “real” (usually *sat*) is not an entirely sharp one in Sanskrit, despite the modern reader's likely expectation to see “truth” limited only to propositions and “reality” limited only to physical entities. Cp., for example, Franco (1984) on how strange it seems to us to speak of an object being “wrong, false, invalid, and so on” (107–8). Although it is commonly thought that *satya* derives from *sat*, the present participle of the root *vas* (“to be”), see Wright (1998) for alternative etymologies, including from the “preverb” or upasarga *sam* (PIE *sem- “one, together”).

¹²³ This Sanskrit term is infamously problematized for having most likely originated as a backformation from a Middle-Indic (specifically Pali) form *sammuti*, which can equally stem from both the Sanskrit roots *samvīman* (meaning “agree upon”) and *samvīr* (“conceal”). The former lends itself better to translations like “relative” or “stipulative” truth, which emphasize the human-centric nature of everyday understanding. In any case, the Indo-Tibetan scholastic traditions were clear in their understanding of the second truth in terms of the concept of concealment. See e.g. Newland and Tillemans (2011), who refer to Edgerton's Buddhist Hybrid Sanskrit Grammar and Dictionary.

¹²⁴ Based on my own years of researching Jaina philosophy, especially for my master's thesis (unpublished) on Ratnaprabhāsūri's Ratnākarāvatārikā commentary on Vādi Devasūri's Pramāṇanayatattvāloka, my overall impression is that the theoretical potential of this approach remained underdeveloped in actually attested philosophical literature, despite many modern attempts at reconstruction and application; for a good example of the latter, see Koller 2000.

in which, something is true.¹²⁵ However, we find nothing like a complete theoretical treatment of linguistic qualification here.

Meanwhile, yet another way of thinking about competing theories is in terms of cost-benefit analysis. Most every theoretical choice brings some of each, and the question is how to assess the overall balance of the two. In Sanskrit philosophy, cost is sometimes discussed in terms of “heaviness” (*gaurava*), albeit most often in the context of optimizing definitional characterizations (e.g., *lakṣaṇas*). That is, unnecessarily wordy characterizations are “too heavy”, and “lightness” (*lāghava*) is generally preferred. This resembles the common desire for parsimony frequently found expressed in Western philosophy, often with reference to Occam's Razor as most succinctly stating the need for numerical minimization of entities at the ontological level.¹²⁶ There are also other ways to speak about theoretical “benefit” in Sanskrit, as actually seen in NBhū 104–154 with the term “*yogakṣema*”.¹²⁷ However, such terminology is not used to assess the advantages and disadvantages of two truths theory. All we know is that, whereas from the Buddhist point of view, it ostensibly has certain benefits (presumably soteriological in nature), from the Nyāya point of view, the cost of giving up the idea of only one truth is so high that it cannot be seriously entertained.

Reductivist Mereology (*avayava*, *avayavin*, *vivecana*, *citratā*)

I have postponed this discussion about reductivist mereology, the nominal red thread of the debate in NBhū 104–154, until the end of this background section not because it is the most counter-intuitive in its basic details, but because I believe that understanding its full significance requires all of the above concepts working together.

The basic everyday observation that catalyzes the discussion is that the normal things of our perceptual experience can be reductively analyzed (*viv/sec*) into component parts (*avayavas*). This may be especially obvious in the case of artificial things, which frequently are manually constructed out of separately prepared parts, but we can also analyze natural things, e.g., a living body into individual limbs. In this way, it certainly makes sense to think of things as composite wholes (*avayavins*) standing in relation to those component parts.¹²⁸ In turn, one can ask what additional conclusions, if any, we can draw from this fact of analysis. It is clear that the Buddhists, at least, used it as evidence that the whole does not exist over and above its parts, and they clearly had in mind not only the personal self (*ātman*), which they reduced to the constituent “heaps” (*skandhas*), but also the

¹²⁵ See the use of *kathāmcid* at NBhū 112,9, 121,14, and 129,19. On the extent to which other philosophers, e.g. those in the lineage of Dharmakīrti, would have understood the Jaina resonance of this idiom, see Balcerowicz 2011, p. 16ff.

¹²⁶ The “razor”, as actually attested in William of Ockham's works, reads as: *numquam ponenda est pluralitas sine necessitate* (“plurality is never to be posited without necessity”). Alternatively, one may also find it more commonly quoted, apparently as rephrased by John Punch centuries later, as: *entia non sunt multiplicanda praeter necessitatem* (“entities are not to be multiplied more than necessary”); the correction is referred to A. C. Crombie, Medieval and Early Modern Science II, 1959, p. 30. In any case, the emphasis on numerical complexity is clear.

¹²⁷ On “benefit” as an acceptable translation for the current context, see footnote 293 in the translation.

¹²⁸ The *-in* suffix of *avayavin* is not to be interpreted in terms of possession, e.g., as “that which possesses the component parts”, but rather simply in terms of association or characterization. Cp. footnote 419 in the translation on the rendering of this suffix in the case of the term “*samavāyikāraṇa*”.

independent essence of any given thing that is “conditioned” or “compounded” (*samskrta*), which basically describes all everyday objects. In turn, some Buddhists (e.g. Vasubandhu) also offered arguments against the possibility of atoms (*paramāṇu*) as the infinitely small building blocks for these compound things. On the other hand, the realists argue for the opposite takeaway: Corresponding to our perception of e.g. a pot being something more than the sum of its parts, in that it is perceptible as such and e.g. able to carry water (which individual atoms certainly cannot do), the pot must in fact constitute a separate substance (*dravya*).¹²⁹

In contrast to basic elemental substance in the form of single atoms of earth, fire, water, or wind,¹³⁰ such composite wholes as pots are impermanent (*anitya*), in that they can be brought into existence and also destroyed. When a composite whole does come into being, it is analyzed as having for its “material causes” (*upādānapratyaya*) the component parts (*avayavas*) themselves, and as subsequently inhering in those same parts. For this reason, the parts are called “causes characterized by inherence” (*samavāyikāraṇas*)¹³¹. As for the criterion of which aggregates and assemblages constitute such new substances, there was in fact no good answer. Some things, like forests and villages, were denied the privilege, ostensibly due to insufficient connection of the component parts, but a temple and its surrounding complex (*devakulaprākārau*) were accepted as being a unitary whole together.¹³² It seems that Nyāya-Vaiśeṣika eventually just gave up on trying to provide such a criterion, simply declaring certain things, like pots, to be “final wholes” (*antyāvayavins*), such that no further composition of them would result in a new substance.¹³³ Such decisions were said to be based on how things appear in everyday practice. However, the special case of continuous entities like water reveals vulnerabilities in the theory, as turbulent motion like splashing clearly constitutes partial disjunction (*vibhāga*) of the overall substance, and one is hard-pressed to find any but the most evanescent “final whole” in the overall mass of water. In this, one is quickly reminded of Buddhist momentariness, in which a given entity is destroyed and comes back into being each moment, in that it generates the next instance in a continuum of itself.¹³⁴

¹²⁹ Although the Self (*ātman*) is considered by Nyāya-Vaiśeṣika to be a substance, it does not seem to have also been concluded, in contrast to the Buddhists' analysis of the Self into aggregates, to be a whole (*avayavin*) in relation to the other components with which it is often conflated, such as the body (*śarīra*), thought (*buddhi*), and so on. Indeed, it could not have been, since composite wholes (*avayavins*) are all impermanent (*anitya*), which is to say created (*kṛtaka*), whereas the Self is by stipulation uncreated and permanent.

¹³⁰ Note that ether is not made of atoms and does not enter into the composition of material substances.

¹³¹ This is taking the overall compound as a *karmadhāraya* and the -*in* suffix of *samavāyin* in the *taddhita* sense of characterization through a noun; it is not correct to take the latter in the *kṛdanta* sense of directly performing a verbal action (like e.g. *gāmin*), since it is not the causes that do the relevant inhering here. If instead one takes the overall compound as a *tatpuruṣa*, then one can indeed take the -*in* suffix of *samavāyin* in the *kṛdanta* sense, i.e., one could translate as “causes of that which inheres [in them]”, but I don't think this interpretation is common. In any case, the typical translation “inherent cause”, although very well entrenched in modern scholarship, is rather misleading. Cp. footnote 419 in the translation.

¹³² See e.g. the discussion at NBhū 129,6ff.

¹³³ D. N. Shastri's (1976) discussion, which is clearly critical of the realist position, suggests the amusing example of a boat constructed out of pots attached together, which, despite successfully functioning as a boat, does not qualify as a whole because the pots out of which it is made are already “final wholes” (240).

¹³⁴ A similar argument is suggested in Jayarāśi's TUS (1987) in an epistemological context: “*udakaprāptyā pūrvotpannodakavijñānasyāvyabhicāritā vyavasthāpyate. kim tatpratibhātodaka-prāptyāhosvit tajjātīyodakaprāptyā tadvamśajajalaprāptyā vā? tad yadi pratibhātodakaprāptyā, tad ayuktam.*

What's more, concerning the composite whole, it becomes difficult to say, if it does in fact constitute a new substance, where that new substance exists in space, as it is generally agreed by all that corporeal things (*mūrta*) cannot exist in the same place at the same time. Similarly, there would seem to be new substances at every level of analysis, for components parts are themselves composite wholes in relation to their own respective parts. Furthermore, the specific example of variegated color (*citrarūpa*) becomes a particularly important pivot, with realists on one side asserting with the help of their real qualities and universals that there can simply be an entity like real variegated color that is both one and many, and anti-realists on the other hand denying that such an external composite is one real entity, instead using it to emphasize the individual unity of momentary cognitions.¹³⁵

As frequently noted,¹³⁶ all of these basic arguments are basically repeated with little variation by Buddhist writers. And as explained by D. N. Shastri, the idea of the *avayavin* and the problems associated with it are all very similar to that of the real universal (*sāmānya*) and even the personal Self (*ātman*).¹³⁷ Already propounded in the Milindapañha in the first part of the common era, the Buddhist's basic solution is to appeal to nominalism, or the position that the names we use to refer to entities are just that, i.e., informative speech acts (Pali *viññatti*)¹³⁸, with no single substantial entity as the underlying referent. In Dignāga, this took on a new form with his theory of exclusion (*apoha*), where such speech acts, and also the thoughts behind them, are able to convey meaning only by “excluding” (*apavūh*) or negating other possible meanings, but the basic idea of nominalism remains the same.

So much for background on the composite whole itself.¹³⁹ To sum up now how all the above key concepts come into play in NBhū 104–154: Our everyday experience leads us to assume

pratibhātodakasyāvasthānam nōpapadyate, jhaśamahiṣaparivartanābhīghātopajātāvayavakriyānyāyena praty-astamayasambhavāt” (76–78).

¹³⁵ For this, one finds the clever grammatical trick of using the word *aneka*, meaning “many, manifold”, in the single, e.g., *anekam jñānam*, cognition that is both one and many. Cp. footnote 299 in the translation.

For the basic problematic of *citrarūpa*, see e.g. Junankar (1978, 97–99). On the distinction of the variegated form “in” cognition (*cetasi citrākārah*) as opposed to an external one, see the above discussion on co-apprehension (*sahopalambha*) and variegation (*citratā*). And for a recent exploration of the Buddhist doctrine of *citrādvaita*, see especially Tomlinson 2019, pp. 240ff.

¹³⁶ E.g., by Joshi (1986) when explaining why NBhū 104–154 would be skipped in his study (611n87).

¹³⁷ Cp. footnote 73 above on “unifying principles”. As Shastri also points out, the original meaning of “realism” in Greek and Western philosophy is specifically the real existence of universals, which stands in direct contrast to nominalism, the belief that universals are just names and do not exist as real external entities separate from the human mind (1976: 47–8).

¹³⁸ Deriving from *vijñā* and corresponding to Sanskrit *vijñapti* — although in Sanskrit one often also finds *prajñapti* as in *prajñaptisat* — this Pali word is sometimes translated as “intimation”, “vocal expression”, or even “information”, apparently in attempts to render the causative meaning, but I find such translations obscure. It is not to be confused with *vijñapti* in the context of *vijñaptimātratā*, which is closer to “cognition” or perhaps “cognitive manifestation” (cp. footnote 115 above).

¹³⁹ One can refer directly to the main Nyāya sources on the topic, namely, NBh and NV ad NS 2.1.31–36 and 4.2.4–37, and especially the latter, longer sequence can be expected to receive treatment in standard presentations of Nyāya, such as Junankar (1978, 94–99), alongside e.g. related discussions of atoms (*ibid.*, 99ff.) and the like. D. N. Shastri's (1976) is still probably the most interesting philosophical take, although the topic is pervasively spread through much of his book. Grohma (1971) also presents a very comprehensive study of the *avayavin* in its own right, specifically in a historical style, and it even considers a bit of material from NBhū 104–154 in particular. In short, the study points out that controversy around the *avayavin*, before

realism about external objects, including the detail that the whole is something different than the sum of its parts, just as implied by our normal actions (e.g. as directed toward a friend rather than toward a mere jumble of body parts). However, for practical soteriological effect, namely for the sake of denying an underlying essence to things, whether oneself or otherwise, one can challenge this everyday understanding with the contrary view of idealism, which of course is hard-pressed to serve as a complete ontological theory on its own but can function as an antidote to everyday psychology. Namely, it calls attention to the possibility of systematic error concerning the idea of utterly distinct existence, specifically with reference to cognitive objects as related to subjective elements of cognition, but also perhaps more broadly. Such an assumption of full difference, it is argued, when subjected to inferential analysis, turns out to be only the apparent object, i.e., the phenomenal content, of a kind of erroneous cognition.

1.3.2 Intra-Textual Context within the Nyāyabhūṣaṇa

NBhū 104–154 is a long polemical digression in the course of defining the first of Bhāsarvajña's two subtypes of perception (yogic and non-yogic). It fits into the overall project laid out in the Sāra base text in the following way.

The very first Nyāyasāra aphorism gives the characterization of the means of valid knowledge (*pramāṇa*), “*samyaganubhavasādhanam pramāṇam*” (NBhū 1968, 11), after which follow detailed explanations of the terms “correct” (*samyak*), “experience” (*anubhava*), and “means” (*sādhana*), which explore issues related to doubt, error, and what it means to be an instrument, respectively, for 60-odd pages. Next, an enumeration of subdivisions of means of valid knowledge is given: “*trividham pramāṇam: pratyakṣam anumānam āgama iti*” (79). This is followed by a characterization of the first of these, namely, perception: “*tatra samyagaparokṣānubhavasādhanam pratyakṣam*” (84). Then, after exploring the term “non-remote” (*aparokṣa*) and a number of other general perception issues, Bhāsarvajña gives his (first) enumeration of perception's subdivisions: “*tad dvividham: yogipratyakṣam, ayogipratyakṣam ceti*” (101). Finally, this leads him to characterize the second of these, non-yogic perception, particularly in terms of connection between sense faculty and object: “*tatrāyogipratyakṣam prakāśadeśakāladharmādyanugrahād indriyārtha-sambandha-višeṣeṇa sthūlārtha-grāhakam*”, or in translation, “Among these, non-yogic perception is that which apprehends

eventually coming to be associated most closely with the tension between Nyāya realism and Buddhist reductivism, was first a disagreement between Sāṃkhya's *satkāryavāda*, on which an effect pre-exists in its causes, and Nyāya-Vaiśeṣika's *asatkāryavāda*, on which an effect (e.g. the *avayavin*) emerges as a new entity. In Grohma's words, the developed Nyāya-Vaiśeṣika theory of the *avayavin*, reliant as it was on the concept of a “final whole” (*antyāvayavin*) for which there was no reliable criterion other than “experience”, thus constituted an “exposed” (“exponierte”) position for realists and might have been discarded as irrelevant if not for the realist backlash against the Buddhist epistemological takeover, of which the polemical passage of the NBhū studied here is a part. Grohma's dissertation was never published, due to an unfortunate accident shortly after its completion that cut his life tragically short, but anyone who wishes to view the dissertation in digitized form can now find it on the Internet Archive at <https://archive.org/details/grohma-1971-lehre-vom-avayavi>.

gross objects, by means of a particular kind of connection between sense faculties and objects, with help from light (*prakāśa*), place (*deśa*), merit (*dharma*), and so on” (102).

It is at this point that the exact nature of the “gross object” (*sthūlārtha*) is examined for our fifty pages of the *Nyāyabhūṣaṇa* (pp. 104–154). According to Bhāsarvajña, the characteristic objects (*artha*) of non-yogic perception are gross ones (*sthūla*), i.e., everyday real things large enough to be visible with the naked eye, as opposed to such things as suprasensible atoms or forms projected by our own minds. Setting himself up especially against Dharmakīrti’s *Pramāṇaviniścaya* and *Pramāṇavārtika* as well as Prajñākaragupta’s commentary on the latter, and to a lesser extent also against others like Vasubandhu and Dignāga, Bhāsarvajña thus sets out to defend his brand of Nyāya realism against a certain strand of Buddhist non-dual anti-realism. In addition to standard Naiyāyika authorities (Gautama, Vātsyāyana, and Uddyotakara), Jayarāśi and Kumārila also appear as methodological intermediaries in this process.

In the section thereafter (NBhū 154–170), the perception chapter continues with further thoughts on non-yogic perception, including consideration of less tangible things that Bhāsarvajña says are also its objects, including substance itself (*dravya*), qualities (*guṇa*), and inherence (*samavāya*).¹⁴⁰ After this, (170–173), he discusses the other subtype of perception, yogic perception, namely in terms of its own special kind of “remote” (*prakṛṣṭa*) objects, e.g., not only atoms but also past and future objects, and this type is also subdivided in experiential terms. Finally, to finish out the chapter (173–187), Bhāsarvajña then doubles back to introduce a second, apparently orthogonal subdivision of perception in terms of “determination” (*vikalpa*).¹⁴¹

Note finally that Bhāsarvajña’s critique of Buddhist views is by no means limited to this part of this first chapter; the equally sizeable second and third chapters, on inference (pp. 189–377) and verbal testimony (pp. 379–598), respectively, also contain numerous such discussions. Some of these are referenced ahead of time from within another context — e.g., the references in NBhū 104–154 to discussions of momentariness¹⁴² and the supposed identity of properties and property possessors¹⁴³ — as topics to receive actual treatment only later. Similarly, Bhāsarvajña also refers backward in the book, either to previous

¹⁴⁰ It should be noted that Bhāsarvajña’s view on the perception of inherence (*samavāya*) is unusual and changes between the time he writes the *Sāra* and the *Bhūṣaṇa*. He namely says in the *Sāra* that it is “sometimes” perceived directly, but later he takes even this much back. Cp. footnote 22 above.

¹⁴¹ See the NSā aphorism at NBhū 173,1: “*tac ca dvividhām savikalpakaṁ nirvikalpakaṁ ceti*”. Like Vācaspatimiśra (apparently shortly after), who attributes the idea to Trilocana, Bhāsarvajña also associates this division according to “determination” — by which the Naiyāyikas mean specification of a subject or “qualificand” (*viśeṣya*) by a predicate or “qualifier” (*viśeṣaṇa*), which therefore by no means has the same semantic range that it has for the Dignāga-Dharmakīrtian Buddhists as “conceptuality” — with a distinction taken to be implied by the term “not designated by words” (*avyapadeśya*) in NS 1.1.4. On this very deep subject, see e.g. the stimulating debates in Philosophy East and West throughout the 2000s between Arindam Chakrabarti (2000, 2001, 2004), Stephen Philipps (2001, 2004), Mark Siderits (2004), and Monima Chadha (2001, 2004, 2006).

¹⁴² See NBhū 138,10, “*kṣaṇabhaṅgasya nirākariṣyamāṇatvāt*”, I believe pointing ahead especially to 510,24ff. (Yogīndrānanda’s heading “*kṣaṇikavādanirāśah*”).

¹⁴³ Ibid. 149,17, “*dharmaḍharminoś cārthāntaravat̄mā vakyāmāḥ*”, pointing ahead largely to the discussions of exclusion (*apoha*) on p. 251 and surrounding.

discussions in the same section, e.g., of dream objects¹⁴⁴ or of proof for the apprehension of awareness by another awareness¹⁴⁵, or even further back, like his explanation of various theories of what appears in erroneous cognition (*khyāti*).¹⁴⁶ In this way, while it is generally possible to characterize our chosen passage NBhū 104–154 as having a standalone structure,¹⁴⁷ it should also be understood to be dependent on discussions elsewhere in the three parts of the Nyāyabhūṣaṇa, as well as on assumed background material from the works of many other authors.

1.3.3 Inter-Textual Context

Bhāsarvajña's NSā and NBhū, like most philosophical works of pre-modern South Asia, are deeply intertwined with numerous other works of that period in such a way that it makes them virtually impossible to understand in isolation. Numerous scholars have offered descriptions of which other authors Bhāsarvajña is particularly dependent on.¹⁴⁸ For NBhū 104–154, this number is relatively restricted. Appendix 2 presents a network graph as a visual aid to help more easily grasp the number of these more direct sources and their respective interrelations.

Granted, Bhāsarvajña does deserve his reputation for being relatively independent, since although his Nyāyasāra certainly responds to prior Nyāya and Vaiśeṣika views, it was consciously not written by him as a commentary on any particular text. As a result, hindsight finds him distinctively outside the mainstream. By contrast, all of Bhāsarvajña's famous near-contemporaries did basically adopt the commentarial framework for their Nyāya writings: Jayantabhaṭṭa's magnum opus Nyāyamañjarī is a selective commentary on the outer chapters of Gautama's Nyāyasūtras,¹⁴⁹ Vyomaśiva's Vyomavatī and Śrīdhāra's Nyāyakandalī are direct (if also partial) commentaries on Praśastapāda's Padārthadharmasamgraha (itself not a commentary on Kaṇāda's Vaiśeṣikasūtra), and Vācaspatimiśra's Tātparyatīkā is a direct commentary on Uddyotakara's Nyāyavārtika (itself of course a subcommentary on NS via NBh).

Nevertheless, Bhāsarvajña does rely fundamentally on other works, not only of the Nyāya and Vaiśeṣika varieties, but also Buddhism (albeit most often antagonistically), Jayarāsi's skeptical brand of Lokāyata, Bhāṭṭa Mīmāṃsā, and Vedānta (specifically, certain Upaniṣads) in NBhū 104–154 alone. In this passage, we see Bhāsarvajña directly quote the NS several times, but interestingly not the NBh nor NV (except perhaps for small points of phrasing). Neither does he directly reuse portions of VS or PDhS, although he does display clear

¹⁴⁴ Ibid. 153,1, “svapnādijñānam api nimittāntaropanipātād bāhya evārthe bhavatīti prāg eva prapañcitam”, pointing back to 32,15ff. (“svapnārthavimarsāḥ”).

¹⁴⁵ Ibid. 149,16, “prāg eva hi sarvasyāpi vedyasya vedanāntaravedyatvam sādhitam”, pointing back to 139,20–1 (“jñānāntaravedyatve pramāṇopanyāsaḥ”).

¹⁴⁶ E.g., *asatkhyātivāda* (120,17) or *viparītakhyātisamarthana* (148,9), pointing back toward NBhū 25,7ff. (“viparyayanirūpaṇam”).

¹⁴⁷ For analysis of the internal structure of NBhū 104–154, see the Chapter 4 (Discussion) below.

¹⁴⁸ See especially Yogīndrānanda (1968, vi–xx).

¹⁴⁹ Namely, Jayanta's enormous work, even with its massive digressions into detailed polemics, is structured at a high level by quotation and comment on most *sūtras* of the first and fifth *adhyāyas* of the NS, mostly in order.

knowledge of their contents.¹⁵⁰ Similarly, going only by at-length textual reuse in this section, is difficult to conclude that Bhāsarvajña definitely had read Jayantabhaṭṭa or Vyomaśiva (the latter judged to be earlier by Slaje 1986) directly, but it seems clear that at least some of their arguments may derive from very similar sources.¹⁵¹ The same can generally be said also of Vācaspati and Śrīdhara.

More obviously, Bhāsarvajña's main opponents are all Buddhists, as evidenced by his copious direct quotations primarily of Dharmakīrti and Prajñākaragupta and secondarily also of Vasubandhu and Dignāga. Specifically, Bhāsarvajña shows interest in Vasubandhu's anti-realist Viṁśikā and in Dignāga's characterizations of *pratyakṣa* and *parārthānumāna* in the Pramāṇasamuccaya. As for Dharmakīrti, Bhāsarvajña is most concerned here with his arguments against realism based on invariable co-apprehension (*sahopalambhaniyama*), specifically of “blue and the cognition thereof” (*nīla, taddhī*), and with his arguments for reflexive awareness (*svasaṃvedana*), both developed over the course of PVSV, PV, and PVin. Bhāsarvajña also takes on these same topics as elaborated by Prajñākaragupta, as well as the latter's treatment of the argument against external object support (*nirālambanatva*) based on dream cognition. Despite it being so obvious that Buddhist arguments quoted in NBhū 104–154 play such a central role, these arguments are also notoriously difficult to understand (not least because of persistent textual problems), and it is unfortunately beyond the scope of this study to fully represent how these arguments function in their own respective contexts. I refer the reader to the translation footnotes and the final discussion for more detail.

Perhaps most curious is Bhāsarvajña's use of Jayarāśi as a source of skeptical *prasaṅga* arguments to use against his Buddhist opponents. Franco (1987a) documents a case where Bhāsarvajña must defend the Nyāya theory of truth against Jayarāśi's skeptical attack, describing the interaction as Bhāsarvajña being “stimulated” to rethink the issue and come up with interestingly novel solutions, thereby crediting Jayarāśi with the assist (44). He also credits to the NBhū “one of the earliest, most serious and detailed discussions of the TUS” (24). In NBhū 104–154, however, the intertextuality relationship is somewhat different, in that Jayarāśi's arguments are enthusiastically employed as destructive tools against Buddhists.¹⁵²

Similarly, Bhāsarvajña makes constructive use of Bhāṭṭa Mīmāṃsā arguments. Namely, he uses the Ślokavārtika as an authority for its interesting meta-philosophical principle that theoretical options with equal explanatory power ought not be given preferential treatment for reasons not subject to debate, which he appears to tacitly invoke with his repeated use of the phrase “same [theoretical] benefit” (*saṃnayogakṣema*). In this way, Bhāsarvajña repeatedly seeks to convince the Buddhist that external objects are at least as good a

¹⁵⁰ E.g., see the discussion of strong mental impressions (*paṭusamśkāras*) left by strong experiences (*paṭupratyayas*) at PDhs p. 266, reflected in the discussion of *vāsanādṛḍhatva* at NBhū 151,5ff.

¹⁵¹ See e.g. NBhū 123,8ff. vs. VyV I,19,11ff.:

“*yad apy avayaviniṛākaraṇe vṛttyanupapatter* ity uktam | tatra *kim idam svatantrasādhanam?* *atha prasaṅgāpādanam iti? svatantrasādhanam* tāvan na yuktam...” (NBhū, with corrected “*anupapatter*”) and “*athāsti vṛttivikalpādibādhakam iti cet, na | tasyāpramāṇatvāt | tathā hi, vṛttyanupapatter* asattvam iti | *kim idam svatantrasādhanam* *uta prasaṅgasādhanam?* iti yadi *svatantrasādhanam...*” (VyV).

¹⁵² See e.g. footnote 444 in the translation.

solution as a mysterious network of self-aware cognitions somehow influencing each other. Similarly, Bhāsarvajña helps himself to Kumārila's overall approach to refuting the Buddhist dream argument against external object support (*nirālambanatva*), Prajñākaragupta's subsequent response to it notwithstanding.

And finally, Bhāsarvajña makes sparse reference to two Upaniṣads (Chāndogya and Brhadāraṇyaka) as representing Advaita Vedānta, but at no point does he express sympathy for this view. In fact, he is firmly convinced that all non-dualist views are wrong, and his main purpose of citing Vedānta is to show the Buddhist that other non-dualisms already exist if one so desires them, such that there is no point in advocating another one from the Buddhist's relatively counterintuitive point of view regarding no-Self (*anātman*), momentariness (*kṣaṇikatva*), rejection of Vedic tradition, and so on.

2 Edition of NBhū 104–154

Over the years, numerous emendations to the text of the NBhū have been suggested in various publications. Those speaking to NBhū 104–154 notably include Sen 1991 and, to a much greater extent, Yamakami 1999c.¹⁵³ However, there do not seem to have been any proper new editions of any part of the NBhū whatsoever. Nor has there been any detailed public assessment of the extant manuscript sources, which currently appear to be three in number.¹⁵⁴ I was generously allowed access to digital surrogates of all three of these manuscripts from the Vienna Archives for the Study of Nyāya with the kind permission of Prof. Karin Preisendanz.¹⁵⁵ Having found them to be of substantial value in making sense of the text, I offer detailed descriptions of them here, in hopes that this may be useful for continued work on the Bhūṣaṇa. This is then followed by my critical re-edition of NBhū 104–154.

2.1 Source Materials

Including Yogīndrānanda's 1968 edition, there are four textual witnesses for the NBhū. Here are the most important facts about each of them:

- Manuscript P1 is the central source, is complete, and has learned marginalia.
- Edition E_Y is based on P1 (or more accurately, on an apograph thereof) and most often gives an improved text, but it is also unnecessarily opaque regarding its single source.
- Manuscript P2 is a poorer-quality sibling of P1 that rarely provides substantial help but also is complete.
- Manuscript V, written in Śāradā, is a partial witness extant for almost all of the present study, and while it is noticeably error-prone in certain ways, it nevertheless occasionally provides valuable independent testimony, enabling numerous substantial improvements to the text.

¹⁵³ For all changes suggested by these two publications, see Appendix 3, “Previous Suggestions to Improve Text of NBhū 104–154”. Steinkellner's (1972) is an interesting consideration of how the printed text of the NBhū contains fragments of the PVin, but it does not suggest any changes to the text of NBhū 104–154. Similarly, Joshi (1986) does presents numerous textual emendations for all other parts of the Pratyakṣa Pariccheda, but none for NBhū 104–154, which was skipped.

¹⁵⁴ Additional manuscripts may very well exist. The NaMaMi project database (<https://bharatiyakritisampada.nic.in/-manus/searchview?id=MjI4NzI1>, accessed Sept. 30, 2021) reveals one promising item in the Orissa State Museum, Bhubaneswar: “NaMaMi Manuscript Id: NOI02400132; Institution: Nrusingh Panda; Record No.: 132; Bundle #: 177; Title: Nyāyabhuṣana; Folios: 42; Pages: 84; Complete/Incomplete: Complete; Material: Palm Leaf; Script: Oriya; Condition: Good”. Similarly, the online catalog of the Department of Libraries & Research of the Goverment of Jammu & Kashmir records another: “S No: 793.2; Accession #: 1453.2; Title: Nyayasangrahavartika; Author: Bhasaravajna; Folios: 29; Size in cm.: 19.8x13.6; Material: Paper; Script: Sharda”. If circumstances permit, I look forward to conducting a more thorough in-person search for additional NBhū manuscripts in South Asia at a later date.

¹⁵⁵ Specifically, through a cooperation scheme with the project “Metaphysics and Epistemology of the Nyāya Tradition III – Sources, History, Ideas: A Critical Edition of the Nyāyabhāṣya” (FWF Projects P 24388-G15) at the Department of South Asian, Tibetan and Buddhist Studies, University of Vienna.

Although it does not itself actually constitute a primary source in the same way as the manuscripts, I begin the discussion of textual witnesses with the story of the 1968 printed edition, since it is the sole form of the NBhū most scholars have had access to over the past half-century. My description of this edition (abbreviated here as “E_y” for “edition, Yogīndrānanda”, elsewhere simply as E), is historical and qualitative, whereas the descriptions of manuscripts thereafter (abbreviated “P1” for Patan, “P2” for Pune, and “V” for Varanasi), will focus more on physical characteristics. The discussion of sources ends with some thoughts on the relationship between the P and V manuscripts.

2.1.1 Edition of Yogīndrānanda 1968 (E_y)

D.C. Bhattacharya (1958) noted that “as far back [...] as 1852 A.D.[,] Hall knew the Nyāyabhūṣaṇa of Bhāsarvajña” (36).¹⁵⁶ For almost a hundred years after that, however, it remained nothing but a rumor for most of the world. In the early twentieth century, C.D. Dalal apparently saw a NBhū manuscript in Patan, making mention specifically of its colophon in his edition of the GK/RT (1920, i). And then finally, in 1959, Swami Yogīndrānanda “had a glimpse” of what ultimately proved to be the most important manuscript “[...] only once, in the possession of Svami Satyasvarupa Sastri. After obtaining a grant from the Government of India to publish it, the editor approached Mr. Sastri again, at which time the latter did not allow him to see the manuscript but gave him only a prepared transcript.” This is according to B.K. Matilal (1977), who further commented that “The odd nature of this story raises some suspicion” (410). Franco (2016) wraps up the narrative with the following praise: “The edition is a small miracle. It is based on a single manuscript which the editor was not permitted to consult directly; instead a transcript was prepared for his perusal. The fact that the edition is nevertheless quite readable testifies to the accuracy of the single manuscript, the modern transcript, and the editor’s capacity” (171n2).

This modern transcript, or apograph, is not accounted for in Yogīndrānanda’s edition, and there is no record of what happened to it after it was used for the 1968 edition, so we must assume that it was lost long ago. In his book on the Pratyakṣa Pariccheda, Joshi (1986) stated that the transcript used by Yogīndrānanda “most probably” was based on the Patan manuscript, meaning P1 (16), which Joshi himself had more direct access to in the form of a black-and-white paper photocopy (see P1 below). The main reason we can now be fully confident about this identification is that many of P1’s marginalia, found neither in P2 nor in V, are clearly reflected in E_y’s footnotes, a simple fact I have not yet seen acknowledged elsewhere. They must therefore have been transmitted via the apograph. Sometimes these marginalia were reproduced exactly as found, sometimes they were altered or added to, and sometimes they were omitted. The main reason they might not be recognized as deriving from marginalia, however, is that, intermingled among such marginalia-derived footnotes, there are also many other footnotes in E_y which represent the editor’s more original scholarly insights, most frequently, intertextual notes.

Even by itself, this treatment of marginalia and footnotes suggests a worrying conflation of source material and editorial intervention. It should therefore come as no surprise that the

¹⁵⁶ The reference is to Fitedward Hall’s *A Contribution towards an Index to the Bibliography of the Indian Philosophical Systems*, 1859, p. 26.

edition also gives very few critical notes on variant readings or other textual problems, much less any explanation of its editing methodology, i.e., what specific philological principles guided the editor, especially in more difficult situations. Instead, methodological tendencies must be gleaned by laboriously comparing the edition against the available sources, much in the same way one would compare one manuscript against another in the lucky case of a known genetic relationship.

A final example of opacity in E_y's use of sources lies in its printing the NSā root text above corresponding portions of the NBhū commentary without at all noting those cases where the NBhū is not in fact the source of this material. That is, in instances where the P1 manuscript does include full quotation of NSā material (e.g., the “*tatra yuktāvasthāyām ātmāntahkaranaśasamyoगād eva dharmādisahitād aśeśārthagrāhakam*” at NBhū 180,2–3, found at P1 f. 39r, l. 15, albeit with “*grahaṇam*” instead of “*grāhakam*”), it surely makes sense that the editor would lean toward choosing such readings for his new edition of the NSā. On the other hand, when P1 does not fully quote the NSā material (e.g., the “*prakṛṣṭadharmajatvāviśeṣāt*” at NBhū 180,5, not found as such where expected after the “*antarbhūtam*” at P1 f. 39r, ll. 19–20 or anywhere thereafter), the corresponding material must necessarily be sourced from elsewhere in the textual tradition, whether another commentary which transmits the NSā (e.g., Vāsudevasūri's Padapañcikā), or an independently circulating NSā text, or another type of secondary witness (e.g., Buddhist or Jaina). In E_y, however, no light is shed on this philological process. More thorough comparison is needed to determine E_y's other source or sources of NSā besides the apograph of P1.

To his credit, Swami Yogīndrānanda did nevertheless do an extremely admirable job of emending a great many corruptions found in his single witness. That is, many troubling errors in P1 are effectively corrected in E_y, leading to a much more readable text. Occasionally, these changed readings in E_y receive some corroboration from P2 and/or V. More importantly, however, consideration of context and application of philological principles (above all the genetic principle) usually (although not always) confirm E_y's emendations to be better readings. However, he may also have applied a little too much creativity at times. This is to say, one can also distinguish other, less fortunate types of outcomes, as follows.

Sometimes, for reasons that are hard to determine, E_y emends where there was actually no problem. This can either lead to a stylistically different expression of equivalent meaning (most common) or to a completely new and inappropriate meaning. For example, *tā* is changed to *tva* and vice versa (e.g. 119,5 *et passim*), to basically no effect; particles like *ca* and *api* are omitted (e.g. 122,1, 129,15), sometimes resulting in a muddling of the flow of argument; and forms of *vśak* are either exchanged for other forms of the same root or else simply replaced with forms of *vpr* (e.g. 127,24), again to no effect, but at a clear cost of fidelity. In fact, it is fair to say that the greatest number of my own editorial improvements consist in restoring the P1 manuscript reading against such unnecessary small interventions by E_y. Since these changes often do not affect the meaning, they are not so important individually. However, taken as a whole, they constitute a valuable observation about the occasionally spontaneous nature of E_y's editing.

At other times, E_Y does not fully perceive what is in fact an authentic problem in P1, but comparison with other sources and/or close reading in context can suggest a better option. Several cases of eyeskips in the P tradition and corresponding preservation in V fall under this category. Another example is V's reading *iti* in place of P1 *ışyati* before a following *atha* at 114,24, which E_Y instead corrects to *ışyate* (my decision to follow V here may of course also still be disputed). Of course, such cases cannot really be held against Swami Yogīndrānanda, who had only one source to work with and a task of such prodigious size as would naturally prohibit agonizing over text that seemed unproblematic.

Finally, in rare cases, E_Y's perception of a problem led to a large intervention that hindsight shows to have been too bold. This describes the freely supplemented phrases at 138,13–14 (“*tathā dīpo 'pi syāt / atha dīpaḥ nāpekṣate*” instead of “*tathā dīpo 'py anyam apekṣeta*”, apparently taking the sequence “*syāt atha*” from PVA; and immediately thereafter “*ghaṭo 'py evam syāt, evam ... apekṣeta*” instead of “*ghaṭo 'pi vā pradīpavat ... apekṣeta*”, apparently getting the “*evam*” from the nearby “*eva tathā*” in PVA and by misreading the corrupted “*avādī evac*” in P1, plus another “*syāt*” out of nowhere). It also describes the completely invented (! and not fully metrical!) verse at 147,25–26:

*atha pratyayāntareṇa, na pratyayāntarād bhidā /
evam tāvad vacaḥ ko 'nyo bhadantād vaktum arhati //*

This is in actuality just a prose exchange:

*atha: "pratyayāntarena."
"pratyayāntaram asti, na ca bhedaḥ" iti ka evam bhadantād anyo vaktum arhati?*

The lesson here is that, where the text was difficult, Yogīndrānanda would have done better to simply state the fact that the text had a problem and also what he then proceeded to base his emendation on. Instead, because he remained silent about the large majority of his editorial interventions, and because the manuscript evidence remains off-limits for most, Yogīndrānanda's edition does not properly empower readers to think through these issues for themselves.

Putting such serious issues of methodology aside, there were also numerous innocent typos which crept into Yogīndrānanda's edition. These typos were easily corrected in the new edition, and they are designated in the apparatus of variant readings with parentheses (e.g., “(*āmīya*)” obviously for “*ātmīya*” at 137,16).

One other aspect worth noting is Yogīndrānanda's use of punctuation, spacing, and section marking. Punctuation marks (e.g., *danya*, dash, or sometimes more exotic things like equal signs) were of course freely changed relative to P1, whose existing punctuation fortunately provided a good head start but unsurprisingly stood to be improved for modern readers. Meanwhile, division of sentences into paragraphs, and of paragraphs into labeled sections, was much more at the editor's own discretion and thus constitutes a substantial kind of structural annotation.¹⁵⁷

¹⁵⁷ For more on my own labeling of sections, see §3.2.

To summarize, E_Y does indeed do an overall extremely admirable job of making the text of P1 more readable. For the very knowledgeable reader of Nyāya, who is already very familiar with the arguments, who does not benefit from more detailed punctuation, and who can solve easy to immediate textual problems based on context alone, something like 98% of E_Y for NBhū 104–154 stands as valid without my improvements. If only E_Y had provided more information on emendations and other interventions, a new edition probably would not have been warranted, save for the sake of less knowledgeable readers like myself who benefit from more generous annotation of structure.

2.1.2 Manuscripts (P1, P2, V)

All three manuscripts are written on paper. Dating is unknown for each, but on the basis of comparison with witnesses used in the DFG NBh project (“Digital Critical Edition”), I assume here the expected date of mid- to late-19th century for all three.¹⁵⁸ Manuscripts P1 and P2 appear to be siblings on a common branch of transmission, which can be designated by reference to a hypothetical ancestor P. Manuscript V, on the other hand, appears to represent an independent branch of transmission which usefully preserves a number of seemingly original readings lost or corrupted in P. After first describing the individual witnesses below, I offer a few tentative thoughts on the relation between the P and V manuscripts.

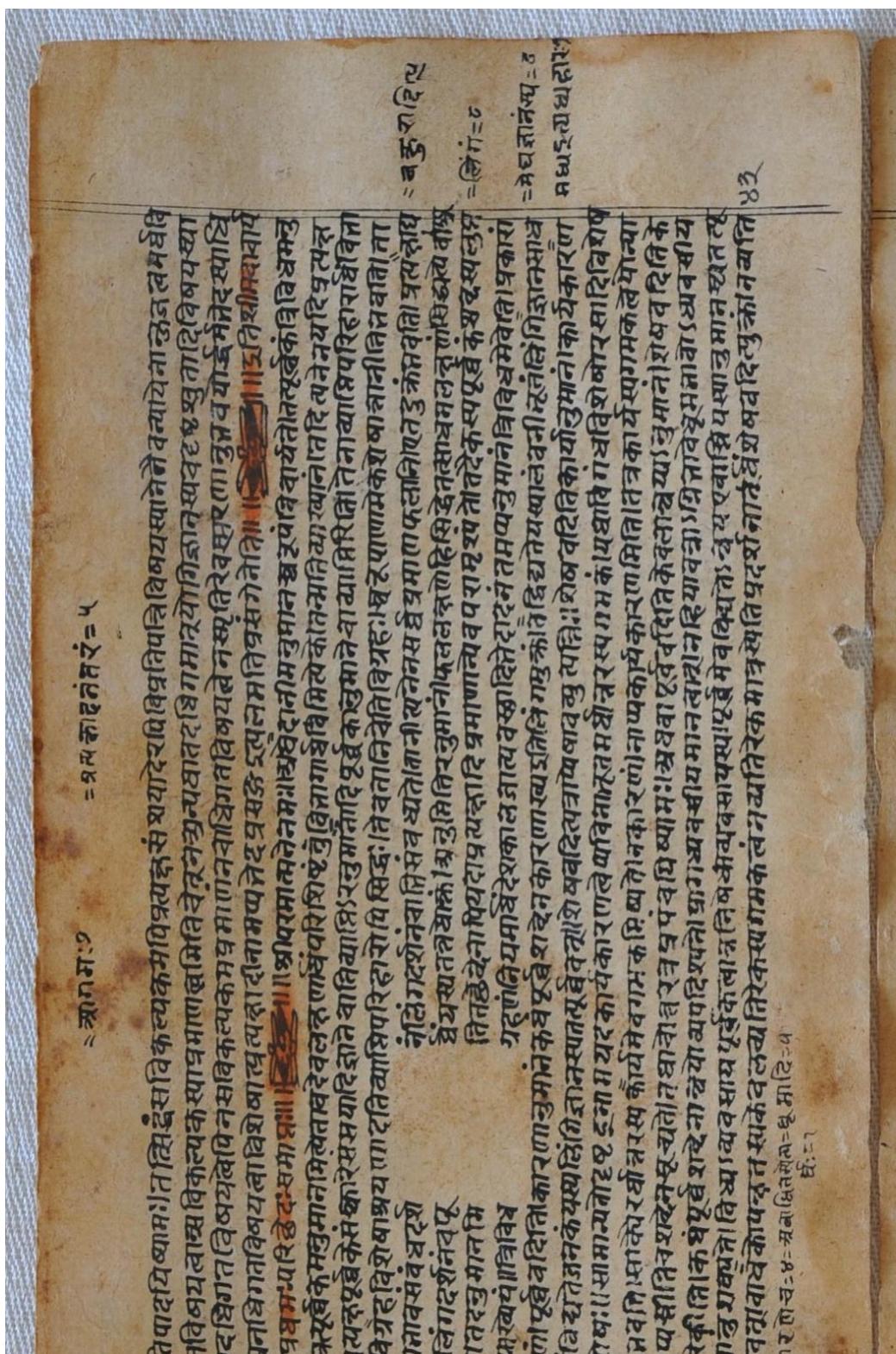
P1 (Patan, Hemchandracharya Gyan Mandir)

Formerly owned by Satyasvarupa Sastri, this beautifully preserved Jaina manuscript, by far the best and most complete among the three manuscripts described here, remains the world's foremost source of information about the Nyāyabhūṣaṇa. Not only is it nearly complete and neatly copied in a clear Devanāgarī script, but its careful and learned scribe provided many hundreds of useful marginal notes.

P1 has been used in a variety of surrogate forms over the years. It was first used to produce an apograph (no longer extant) which formed the basis for Yogīndrānanda's edition (E_Y). P1 was also later photocopied in black-and-white, and this copy was used for the next generation of serious philological work on the NBhū, namely, by L.V. Joshi (dissertation 1979, published 1986), his pupil N. Patel (dissertation 1994, published 2002), and, I believe, also S. Yamakami (dissertation 1998, published 1999). This photocopy is apparently still stored at the L.D. Institute at Gujarat University (“Photostat # 34766”). Finally, the manuscript was digitally photographed in color and in excellent resolution (300 dpi) by Hisataka Ishida (University of Vienna) in 2009, I believe under the auspices of Muni Jambuvijayaji. This digital copy, first mentioned to me by my colleague in Leipzig, Hiroko Matsuoka, who I believe was also present at Patan at the time of the photographing, is what I myself used for my editing work, having never seen the original in Patan myself.

¹⁵⁸ The catalog info of P2 suggests a date range of 1875–76, and the close relationship between P1 and P2 suggests that P1's date may also be close to this. Speaking of V, Franco says: “[O]ur oldest manuscript of [the NBhū], in Śāradā script, comes from the Kashmiri region” (2016, 171). Without further information about the physical object, however, this claim to antiquity seems hard to defend; even if it preserves some older readings, ms. V may not itself be physically older than the P mss.

Sample image



P1D, right half of folio 43v, end of Pratyakṣa Pariccheda

Repository Information

Name	Śrī Hemacandrācārya Jaina Jñāna Maṇḍira
Place	Pātan̄, Gujarāt, India
Catalog Item Number	10717
Catalog Item Title	Nyāyabhūṣaṇasārasaṅgrahavārtika ṭippaṇīsaha apūrṇa
Catalog Item Author	Bhāsarvajña

Physical Description

Material	paper
Condition	very good, text entirely readable; occasional light water damage, discoloration
Number of Folios	149 (of which 12 used for NBhū 104–154)
Sides Per Folio	2 (recto and verso)
Dimensions	26 cm wide x 11 cm high (horizontal orientation)
Script	Devanāgarī
Text Quality	single hand throughout; clear, bold, fairly consistent characters with slightly slanted verticals; in mostly even, sometimes wavy lines
Ink	black (only)
Pigment(s)	red used for occasional highlighting
Lines Per Side	20
Akṣaras Per Line	67 (median, with variance σ^2 of 17)
Foliation	(primary) 1–149 in bottom right corner of versos; (secondary, on folios 110–149, purpose unclear) 1–40 within string hole square on versos
Signatures	“bhū” in upper left corner of most versos from 43v (beginning of second Pariccheda) onward; alternative forms include “bhūṣa[ṇa]”, “bhū[ṣaṇa] dvi[tīyapariccheda]” and “bhū[ṣaṇa] tr[tīya pariccheda]”
Decorative Features	very minimal, only a few rough floral shapes accompanying chapter colophons (see which), as well as red highlighting of chapter colophons and of foliation and signatures for a few folios (76–81)
Other Notable Features	square string hole (4 lines high); vertical border lines; marginalia nearly throughout (absent on 62v–67v, 82v–87r, and 107v–108v)

Textual Content

Title(s) on Work	"Nyāyabhūṣaṇa" (described as "Saṃgrahavārttika") ¹⁵⁹
Author on Work	"Bhāsarvajña" and "Bhāvasarvajña" (once each)
Benediction	(1r1) oṃ namo vītarāgāya
Chapter Colophons	(43v4–5) ø śrīmadācāryabhāvasarvajñaviracite nyāyabhūṣane saṃgrahavārttike prathamaḥ paricchedaḥ samāptaḥ ø (94r4–5) (same as above, but with "bhāsarvajña", "saṃgraha[ka]" and "dvitīyah") (149v4) (breaks off abruptly in middle of folio, as reported in E _y)
Extent	Nearly complete ¹⁶⁰

Paleographic Features

The main hand of P1 is overall very similar to but not identical with that of P2. The learned marginalia in P1 appear to be in the same hand as the main text, which may help explain why scribal errors are overall far less frequent in P1 than in P2. Nevertheless, P1 does exhibit some orthographic tendencies toward the ungrammatical, systematically mistaking certain kinds of *akṣaras* for others (see Table 1). Taken together, these patterns reflect an exemplar at some point in the transmission in a Nāgarī-type, specifically one with *prsthāmātra* vowels. Based on the known provenance information, it seems reasonable to suppose that this exemplar was written in "old Jaina Nāgarī".¹⁶¹

¹⁵⁹ The title "Kusumāñjalivṛtti" found in a second hand on 1v and 149v and ostensibly referring to Udayana's Kusumāñjali is clearly a misidentification. Bhāsarvajña's dating prior to Udayana is clear from the fact that Udayana refers unambiguously to the NBhū in his Kiraṇāvali.

¹⁶⁰ Since this is the most complete witness of the NBhū, and since it breaks off, the exact extent of the NBhū itself remains unknown. However, comparison with the Nyāyasāra root-text, which is known from many other sources, is informative. First, it should be noted that, in general, the NBhū tends to contain most words of the NSā, although there are exceptions. The NSā's second-to-last line as known from other sources, "*tasmāt kṛtakatve 'pi nityasukhasaṃvedana-sambandhasya vināśakāraṇābhāvāt nityatvam sthitam*", is also attested here in the NBhū commentary. The NBhū then launches into another objection, beginning "*nanu rāgasaya saṃbandhanātmakatvān nityasukharāgeṇa pravṛtto na mucyate, na [...]*", for which Yogīndrananda's heading is "*nityasukharāgasaya bandhānātmakatvam*", and is in the middle of this when P breaks off. The final sentence of the NSā, "*tat siddham etat nityasaṃvedyamānenā sukhena viśiṣṭā ātyantikī duḥkhanivṛttiḥ puruṣasya mokṣa iti*", is not found in the NBhū. From all this, it can be assumed, at a certain risk of underestimating Bhāsarvajña's interest in extending his discussion of this controversial topic — which, for example, occupied other authors at great length, such as in Gadādhara's Muktivāda — that only a little material is actually missing, likely corresponding to an exemplar's final folio and with it one to two sides of content. The fact that neither of the P1 and P2 scribes wrote final colophons for the Āgama Pariccheda and/or for the work as a whole might mean that both were awaiting supplementation of their exemplar through further material that ultimately never came.

¹⁶¹ I take as my example for old Jaina Nāgarī NBh witness J1D, which has been dated to the year 1288.

		consistent with exemplar in		
type of confusion	example	old Jaina Nāgarī	newer Nāgarīs	Śāradā
sva for śca	“nubhavas va saḥ” for nubhavaś ca saḥ (30v8)	y	n	n
va / dha	“sivyat” for sidhyat (31v8); “parādhabodha” for parāvabodha (31v4)	y	n	y
na for ra	“nakte” for rakte (24r16); “śākyain anumiti” for śākyair anumiti (30v6)	(y)	y	y
da for avagraha	“tato dartha” for tato 'rtha (24r4)	y	y	n
misreading of pr̥ṣṭhamātrā vowel	“višeṣaṇavišeṣyāyāś” for višeṣaṇavišeṣyayoś (22r11); “yogakṣemātvana” for yogakṣematvena (31r3)	y	n	n

Table 1: Orthographic confusions in P1

It should also be noted that the ligatures *nta*, *tta*, and *tra* have very similar appearances in P1, but upon careful consideration, they do seem to have been properly distinguished. That said, their similarity appears to have led to some confusion in E_Y (e.g. “*tadanyāpratipatrā tadrūpaparāvṛttam*” for “*tadanyāpratipattāv atadrūpaparāvṛttam*” at 117,14), perhaps due to errors introduced in the creation of the intermediate apograph. On the other hand, the ligature *nna* is often improperly degeminated by P1 itself, most frequently manifesting as an apparent, nonsensical ablative in -ā before word-initial *n*, e.g., “*agrhitād yathā bāhyā na buddhir bhedam ātmanah*” in Bhāsarvajña's *saṃgrahaśloka* at 141,26, with underlying ablative “*bāhyāt*”.

For deletions in P1, the most common method is tick marks: vertical ones for entire *akṣaras*, or horizontal or slanted ones striking out diacritics (e.g., vowel *mātrās*). Sometimes, however, crude brackets are used (e.g., 31v13), most notably in cases where the scribe apparently recognized accidental duplication of large amounts material (e.g., 28r7). New scribal material, while most often placed in the margin, is occasionally simply written above the line (e.g., 31r10), where it is possibly in a second hand. Otherwise, double lines (similar to an equal sign), either level or slanted, is used at the place in the text corresponding to marginal material. This marginal material, which contains notes more often than corrections, is in turn demarcated at both its beginning and its end by the same (level) double lines, followed by the relevant line number. This line number is generally given counting down from the top line if the note is written on the top half or two thirds of the folio side, whereas if the material is written on the bottom half or third of the folio side, it is generally given counting up from the bottom; double-digit line numbers are mostly avoided in this way, but when they are used, they seem to always be counting down from the top. Vertical marks above the line can indicate additional punctuation, but this is rare. In such case, one finds only single *dandas*, never the double *danda*.

Finally, the *avagraha* is generally used in the two most common ways, namely for elision and crasis, but it is also found in at least one instance of a word boundary at which the sandhi would not be as ambiguous, namely, a change of vowel to semivowel before word-initial vowel of a different articulatory type: “*pṛthakkriyamāñe'sv avayaveṣu*” (23r11). On this particular case, compare the related note on P2 below.

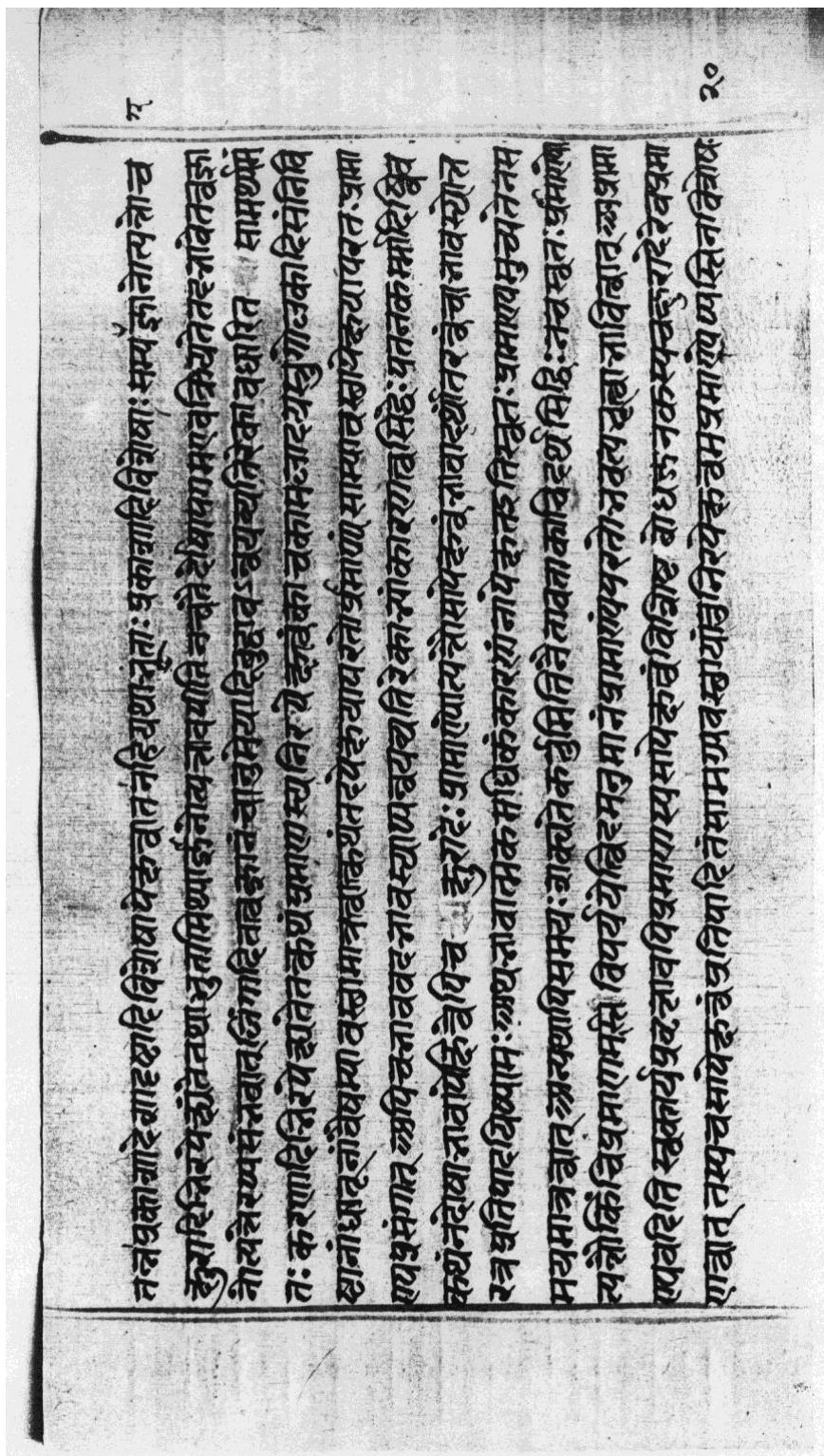
P2 (Pune, Bhandarkar Oriental Research Institute)

This second Devanāgarī manuscript has been referenced in print by Yasutaka Muroya and Shinya Moriyama.¹⁶² It can ostensibly be physically traced to Patan (I assume the same Hemchandracharya Gyan Mandir), where it was acquired for the Pune BORI collection.¹⁶³ Content-wise, P2 is the least useful. Close comparison with P1 reveals P2 to be a lower-quality sibling, almost certainly copied from the same exemplar, but with lower fidelity. As such, it is occasionally able to preserve a reading that was distorted in P1, but in most cases, EY was already able to successfully emend, and so the function of P2 in such cases is effectively to corroborate an idea that already seemed proper.¹⁶⁴ More often, P2 introduces novel distortions, especially errors of orthography and inappropriate exchanges of visually and perhaps also aurally similar *akṣaras*, which can be taken as indicative of the scribe's lack of Sanskrit knowledge (see Paleography below). It also contains none of P1's useful marginalia. Visually, as well, it is the least remarkable specimen: The handwriting, while entirely readable throughout, is less careful, and the digital photographs themselves, while of excellent resolution, were made in black-and-white, making certain physical features and readings (e.g. corrections) more difficult to discern. Its value seems to lie in the historical light it may be able to throw on P1.

¹⁶² See Muroya (2011, 351–52n35) and Moriyama (2007, 101n*).

¹⁶³ As evidence for this, I only have a third-hand report of the opinion of Alessandro Graheli via a personal communication with Rafał Kleczek.

¹⁶⁴ In most cases, it seems unlikely that P1 would have mindlessly transmitted a faulty reading of the exemplar while P2 would have successfully corrected it. Rather, in cases where P2 has the better reading, it is most likely because of a novel error in P1 and successful mechanical copying in P2.



P2D, folio 20v, with several corrections

Repository Information

Name	Bhāṇḍārkar Oriental Research Institute
Place	Puṇे, Mahārāṣṭra, India
Catalog Item Number	625 “of 1875–76” ¹⁶⁵
Catalog Item Title	Nyāyabhūṣaṇa (Nyāyasadarthasaṅgraha)
Catalog Item Author	Bhāsarvajña

Physical Description

Material	paper
Condition	very good, text entirely readable; little discoloration visible, edges appear to be intact
Number of Folios	513 (of which 38 used for NBhū 104–154)
Sides Per Folio	2 (recto and verso)
Dimensions	(unknown, horizontal orientation)
Script	Devanāgarī
Text Quality	single hand throughout; clear, mostly bold, somewhat inconsistent characters with decidedly slanted verticals; in mostly even, sometimes slanting lines
Ink	black (? only?)
Pigment(s)	yes, color unknown, used for correction
Lines Per Side	12
Akṣaras Per Line	35 (median, with variance σ^2 of 6)
Foliation	1–513, in bottom right corner of versos
Signatures	none
Decorative Features	none
Other Notable Features	vertical border lines; occasional corrections, usually in margins, sometimes interlinear, most often in other hands

Textual Content

Title(s) on Work	“Nyāyabhūṣaṇa” (described as “Saṃgrahavārttika”)
Author on Work	“Bhāsarvajña” and “Bhāvasarvajña” (once each)
Benediction	(1v1) (bhale) om namo vītarāgāya
Chapter Colophons:	(129r7–8) iti śrīmadācāryabhāvasarvajñaviracite nyāyabhūṣaṇe saṃgrahavārttike prathamaḥ paricchedaḥ samāptaḥ cha (307r2–3) (same as above, but with “bhāsarvajña”, uncorrected “saṃgrahaka” and “dvitīyah”) (513r2) (breaks off abruptly in middle of folio, same as P1)
Extent	Same as P1, q.v.

¹⁶⁵ This categorization suggests a date, although perhaps only of acquisition.

Paleographic Features

P2 is mostly similar to P1 but also much more prone to a wider variety of orthographic problems (see Table 2 below). Even with most of these additional problems judged to be gross scribal errors, the overall pattern still points toward an exemplar in Jaina Nāgarī.

type of confusion	example	consistent with exemplar in		
		old Jaina Nāgarī	newer Nāgarīs	Śāradā
śca for sya (very frequent)	“kaścacid” for kasyacid (85v1)	n	n	n
vowel mātrās (very frequent <i>ante correctionem</i>)	“nilādi” (<i>ac</i>) for nīlādi” (86v6) “ite cet” (86v1) <i>et passim</i>	n	n	n
vocalic ṛ for post-combining form of consonant r	especially in the roots vgrah and vdrś e.g. “grhaṇa” for grahaṇa (76v9)	n	n	n
śa for sa	“aviśamvādi” for avisaṁvādi (90r1)	y	n	(y)
dba / dva for ddh (although clearly distinguishable akṣaras)	“budhvau” for buddhau (87v1); “budba” for buddha (97v9)	(y?)	(y)	(n?)
omission of visarga	<i>passim</i>	n	n	n
misreading of prṣṭhamātrā vowel	“grāhakāveduryād” for grāhakavaiduryād (81v2); “sann ahe” for sann āha (84r11); “yogakṣemātvana” for yogakṣematvena (88v4); “lakṣedina” for lākṣadīna (98v11, indirect, addl. problem in exemplar)	y	n	n

Table 2: Orthographic confusions in P2

Of particular interest is the extent of vowel confusion, which may indicate some degree of oral dictation. Of most informative use for determining the exemplar, however, is the particular pattern of misread *prṣṭhamātra* vowels, especially as compared against P1 (see Table 1). These misreadings sometimes occur in the exact same places as P1, sometimes in different places.

In P2, the *avagraha* has an additional function in numerous instances. Namely, in addition to elision (e.g., “*nānyo 'nubhāvyo*”, 63r12) and crasis (e.g., “*katipayā'vayavadarśanād*”, 62v3), it is also used to indicate a word-break between the consonant and vowel within a given *akṣara*; for this, it can be placed either to the left of the *akṣara*, e.g., “*kriyamāñe'sv avayaveṣu*”, 63r3, or to the right, e.g., “*sad apy a'nupalabhyamānam*”, 63v8. This contrasts with P1, which generally does not use *avagraha* in this way, except in the one case of the former example (“*kriyamāñe'sv avayaveṣu*”).

Corrections are made in a variety of ways, and they are not always easy to understand:

- Correction fluid can be applied, and the resulting space is either left blank or repurposed for new characters (the latter often in a second hand).
- Old material can be crossed out (where applicable) and new material (including punctuation) simply written above the line (e.g., 68v8).
- In-line position can be marked by a *kākapāda* (inverted caret) or by level double lines (similar to an equal sign) over the text or by a single line under the text, and corrections written in the margin.
- New material can be simply written directly on top of old material without deleting it first.

These correction methods can sometimes be combined with each other. For example, correction fluid is used to delete old characters, then new characters are written over top of this as far as space will allow, at which point a *kākapāda* is used to point to the rest of the correction location in the margin (e.g., 75v6); or underlining indicates a problem, and another hand provides the correction (e.g., 89v11). The “underlining” method in particular leaves the greatest amount unsaid; sometimes the intended correction is obvious (e.g., *nirālambanā* instead of “*niśalambanā*” at 89v1), but at other times it is not so clear what was understood to be the problem (e.g., with “*santānāntara*”, 85r4).

The scribe of P2 also uses a high horizontal line for material in the exemplar decided to be illegible (e.g., “*vikalpa - nvaya*” for “*vikalpas tv anvaya*”, 86r6). Comparison with P1 in such cases suggests either that P1 was more skilled at interpretation or that P1 had earlier access to the exemplar and that it had deteriorated by the time of P2’s copying.

V (Varanasi, Banaras Hindu University)

This incomplete Śāradā manuscript is referred to by Yamakami (1999b) as “MsB” and mentioned also by Franco (2016).¹⁶⁶ For my guess of late-nineteenth century for its dating, I

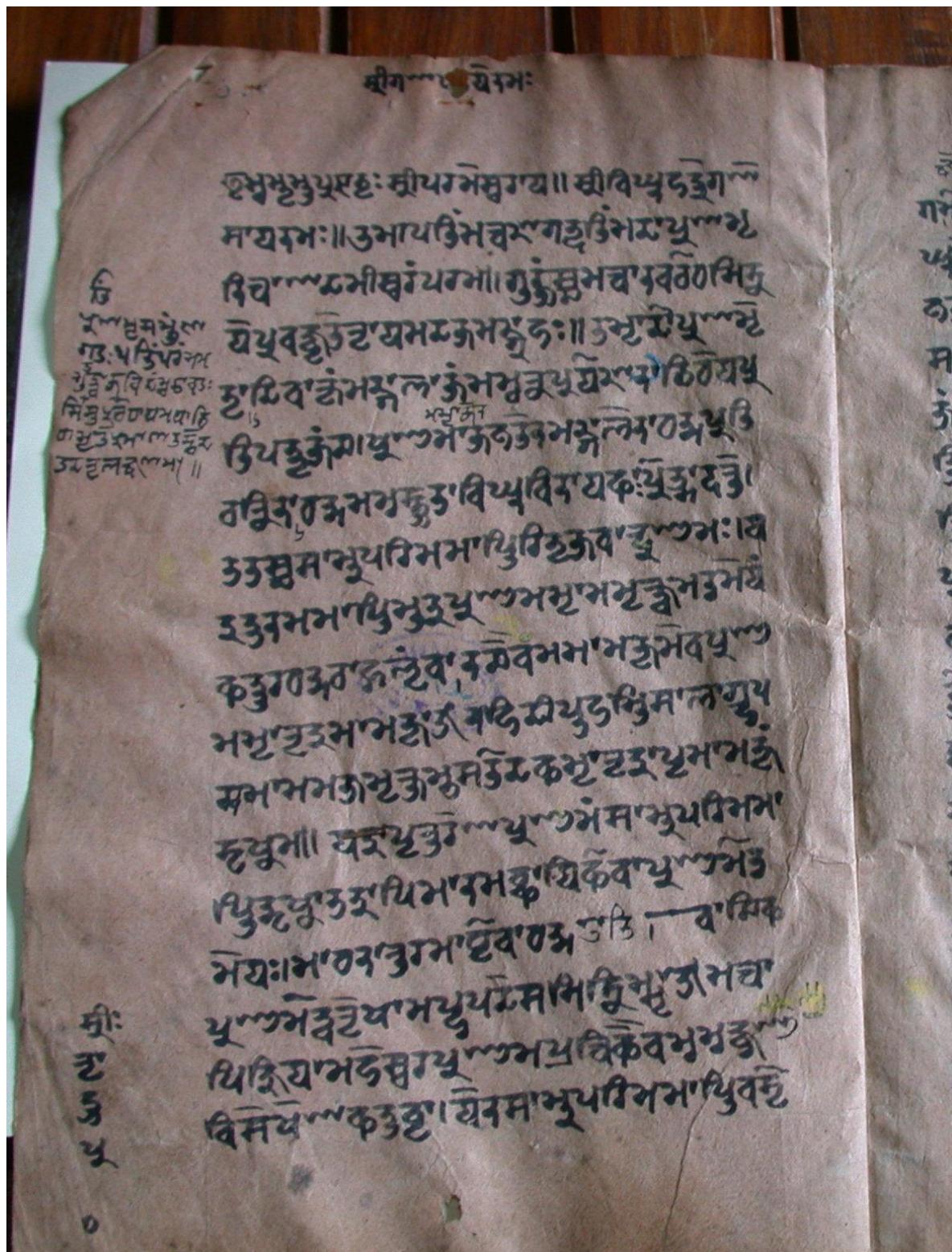
¹⁶⁶ It is also likely to be mentioned by Kleczek (dissertation forthcoming).

rely only on its general visual similarity to other Śāradā mss. of that period.¹⁶⁷ After P1, it is the second-most important source for the NBhū (at least for that part for which it is extent), since it contains many useful readings which improve our understanding of the text and which may represent an older state of the transmission of the Nyāyabhūṣaṇa (see below for argument). However, its overall quality as a stand-alone text is much lower. First, it is quite partial, covering only NBhū 1–151,10, i.e., breaking off just before the end of the passage studied here. In all likelihood, a larger book has been broken up into at least two pieces, with only this first piece remaining for preservation by the BHU library. Second, V has more eyeskips and word-level distortions than does the P group. And third, the manuscript seems to have suffered relatively more physical deterioration (e.g., abrasions and water damage). Despite all this, and despite its near-total lack of punctuation, its readability remains very good,¹⁶⁸ and it would be indispensable for a closer understanding also of the preceding part of the Pratyakṣa Pariccheda which is not covered in the current project but for which it is also extant (i.e., NBhū 1–104).

¹⁶⁷ Specifically, DFG project (“Digital Critical Edition”) NBh mss. KuS and S1S, whose dates are known to be 1880 (“?”) and 1872/73, respectively.

¹⁶⁸ The main obstacle is occasional blurriness or poor framing in the digital surrogate itself.

Sample image



VS, folio 1v, beginning of Pratyakṣa Pariccheda, with several corrections

Repository Information

Name	Banaras Hindu University
Place	Vārāṇasī, Uttar Pradesh, India
Catalog Item Number	3C/2433 (serial; accession number C6) ¹⁶⁹
Catalog Item Title	Nyāya-bhūṣaṇa
Catalog Item Author	none

Physical Description

Material	paper
Condition	good, text almost entirely readable; significant water damage, occasional abrasion of material surface (e.g., 82r), some damage to paper repaired with tape/paper patches (17r–v)
Number of Folios	103 (of which 37 used for NBhū 104–154)
Sides Per Folio	2 (recto and verso)
Dimensions	15.8 cm wide x 23.6 cm high (vertical orientation)
Script	Śāradā
Text Quality	single hand throughout; clear, consistent, mostly bold characters with straight verticals; in sometimes slanted lines
Ink	black
Pigment(s)	yellow, used for correction (mostly in first dozen or so folios, e.g. 12v–13r)
Lines Per Side	18 (occasionally 17 or 19)
Akṣaras Per Line	22 (median, with variance σ^2 of 2.5)
Foliation	1–106, in lower left margin on versos (one extra folio number at the top left of 57r); numbers 31 and 77 not used; number 55 corrected from 56; folio 97 bound before 96; folio 98 missing
Signatures	various combinations of “śrīḥ”, “nyāya”, “bhū[ṣaṇa]”, and “pra[tyakṣa]”, above foliation in lower left margin on versos
Decorative Features	none
Other Notable Features	folios bound together with thread (visible at e.g. 95v, 97r); occasional corrections and comments appear either full-size in the margin or in a smaller size interlinearly, larger quantities of which are found at 13r, 60v, 75r and 16r, 36v, 39r–v, respectively;

¹⁶⁹ The alternative serial number “327706”, found on a tag accompanying the physical item, is the one used for reference by the Vienna Archives for the Study of Nyāya. The catalog's (Tripāṭhī 1971) front matter gives additional information about the location of the manuscript, helping to clarify the meaning of the letters in the accession numbers (C, elsewhere also B and S) as indicating the three BHU-related locations Central Library, Bhārat Kalā Bhavan, and Samskrit Mahā-vidyālaya. It also gives a breakdown of the overall contents of the collection — a total of 10,433 mss — by the three locations (5,695, 4,520, and 218 mss, respectively) as well as by scripts (Devanāgarī, Śāradā, etc.) A further note promises to explain the provenance of “the above MSS”, but only the details for four ranges of accession numbers are given (C5431–C5695, C771–C1279, B1–B4025, B4026–B4520), totaling 5,293 mss, well short of the total of 10,433. As for the rest of the items, totaling 5,140 mss and among which is our V, no further information is given (v–vii). However, by the Nyāyabhūṣaṇa ms.'s low “C” accession number, one can possibly surmise that it may have been among the very first items obtained and stored at the Central Library.

	also once upside-down on 71r; corresponding Sāra material is indicated full-size in the margin on 1v; half-cut-off words appear at the top border of 73v
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Textual Content

Title(s) on Work	none										
Author on Work	none										
Benediction(s)	(top of 1v, 60r) <i>śrīgaṇapataye namah</i> ; (top of 30r) <i>śrīgaṇeśāya namah</i> ; (top of 41v) <i>śrīgaṇapataye</i> ; (top of 57r) <i>śrīḥ</i>										
Chapter Colophons	none										
Extent	<p>73.5% of the Pratyakṣa Pariccheda as measured by Yogīndrānanda 1968, specifically:</p> <table border="1"> <thead> <tr> <th>including</th> <th>excluding</th> </tr> </thead> <tbody> <tr> <td>1,7–61,3</td> <td>61,3–66,15 (large eyeskip?)</td> </tr> <tr> <td>66,15–141,01</td> <td>141,01–142,06 (1 folio lost)</td> </tr> <tr> <td>142,06–147,4</td> <td>147,4–147,27 (eyeskip)</td> </tr> <tr> <td>147,27–151,10</td> <td>151,10– (abrupt stop mid-word)</td> </tr> </tbody> </table>	including	excluding	1,7–61,3	61,3–66,15 (large eyeskip?)	66,15–141,01	141,01–142,06 (1 folio lost)	142,06–147,4	147,4–147,27 (eyeskip)	147,27–151,10	151,10– (abrupt stop mid-word)
including	excluding										
1,7–61,3	61,3–66,15 (large eyeskip?)										
66,15–141,01	141,01–142,06 (1 folio lost)										
142,06–147,4	147,4–147,27 (eyeskip)										
147,27–151,10	151,10– (abrupt stop mid-word)										

Paleographic Features

The Śāradā script found here is quite standard as measured by Slaje's (1993) handbook.¹⁷⁰ I add only a few specific notes here:

- The script does not distinguish at all between *ṣṭa* and *ṣṭha* (e.g., in *kāṣṭheṣṭa*, 90r4).
- Also quite similar to each other are *tva* and *dva* (e.g., in "nimagnatvān" and "tadvedane", 79v13) and *dhya* and *vya* (e.g., in *grāhyādhyavyavaseya* [sic], 97v10).

Finally, the long ā *mātrā* appears to occasionally have a second, Nāgarī-like form, used most often (or exclusively?) with the *akṣara mā* in particular. Namely, in contradistinction to the normal downward-pointing wedge of Śāradā for ā, this Nāgarī-like ā is represented by a long vertical stroke after the *akṣara*. Examples include "himālayo" (91r1), "ātmānam āśādamyati" (97v3–4), and "vyavahārām āyātah" (97v18–99r1). The significance of this variant is unknown.¹⁷¹

Again, the particular pattern of confused *akṣaras* (see Table 3) is generally consistent with an exemplar in Nāgarī-type script and with *pṛṣṭhamātra* vowels. However, as was the case

¹⁷⁰ The manuscript chosen as representative for this handbook is a copy of the Ghaṭakharpurakāya, containing also the Gūḍhadīpikā commentary by Kuśalamīśra. The manuscript can be dated only imprecisely, with a terminus post quem of 1690, the date of composition of the commentary, and a terminus ante quem of 1890, the date when M.A. Stein obtained the item (3–4).

¹⁷¹ The closest symbols identified by Einicke (2009) seem to be "Sar4(1681)_5" (174), "Sar9.2(1750!)_1" 180, and "Sar9.3(1750!)_3" (180), all with the same label of "Randausgleich (oder Worttrenner am Zeilenende?)", which does not seem to apply here.

with P, one cannot rule out the possibility of intermediate copying steps via some other script.

type of confusion	example	consistent with exemplar in		
		old Jaina Nāgarī	newer Nāgarīs	Śāradā
misreading of pr̥ṣṭhamātrā vowel	“pratyayenārtham” for pratyāyanārtham (99v16); “ivākāśa” for iva keśa (73r15)	y	n	n
na for ta	“dṛśyana” for dṛśyata (74v18)	y	y	(n)
nna for da	“tvānn ekasmin” for tvād ekasmin (74v11); “tasmānn avayavā...” for tasmād avayavā... (75r4)	n	n	(n)

Table 3: Orthographic confusions in V

Correction methods span the usual range, involving yellow fluid, in-line corrections, and marginal notes. They are generally not difficult to understand.

Finally, one occasionally finds small circles above the text (e.g., above “*parimāṇātiśayo dṛśyate tataḥ*”, 90v13). One handbook for such markings in Sanskrit manuscripts suggests that this should indicate insertions, but this does not seem to be the case, since there is no material in the margin found to correspond.¹⁷² Their significance remains therefore unknown.

Toward a Relationship Between P and V

I offer the following few generalizations on the transmissions underlying the extant witnesses.

First, it is reasonable to assume that P1 and P2 share a common recent ancestor, if not exemplar, which we can call P. The main justification for this assumption is that the two witnesses share mostly the exact same readings throughout, including colophons for the first two chapters and the nature of the abrupt break before the end of the third and final chapter, namely, in the exact same place and without a final colophon. In addition, the specific nature of their differences in misreadings of *pr̥ṣṭhamātra* vowels and in a few other difficult places of corrupted text is readily explainable if we assume such a common (direct) ancestor. By contrast, numerous of these changes become harder to explain if we assume that, e.g., P2 was copied from P1,¹⁷³ or vice versa. For example, the more widespread use of *avagraha* in P2 seems to be more original, being hard to explain as an addition when P2 does not exhibit other such scholarly additions, and easier to explain as having been intentionally removed in P1, except in the single case of “*kriyamāṇeśv avayaveṣu*” (see above). Of course, there could also have been further copying steps between either of these

¹⁷² See again Einicke (2009), symbol “Sar2(1419)_8” (171).

¹⁷³ For similarly negative consideration of such derivation of P2 from P1, see Muroya (2011, 351–52n35).

two manuscripts and this hypothetical ancestor P, or contamination by other sources could play a role. I have not been able to secure any particular evidence to such effects, however.

As for the relationship of this ancestor P and manuscript V (it is hard to speak concretely about ancestors for the latter), the main evidence that neither is derived from the other is the simple fact that each fills in gaps in the other, e.g., P's omission at 104,6, or the material corresponding to V's missing folio 98 at 141,2–142,6. That these represent omissions and not additions is made quite clear by close reading of context. On the other hand, both P and V are also occasionally seen to independently interpolate material that context shows does not belong, e.g., the material on “god's thought” in V at 139,22ff., or the alternative phrasing of the “*bhadanta*” quip in P at 147,21ff. It is hard to rule out the possibility of either P or V having been copied from a more distant ancestor of the other which would not yet have had such erroneous features, but it is better to refrain from making such relatively complicated assumptions without more specific evidence.

Concerning relative age, I do not think that we can infer anything from the scripts used or from the geographies thereby implied.¹⁷⁴ Rather, what appears most informative is the frequent omission of small particles in V such as *ca*, *tu*, *eva*, *api*, and *hi*, especially when juxtaposed against other evidence suggesting that V's scribal tradition was somewhat less intellectually engaged with the text. In support of the latter claim is the near total lack of marginal material in V, its more frequent eyeskips, and its relatively numerous mistakes that suggest lack of familiarity with the content, e.g., “*citta*” for “*citra*” (*passim*)¹⁷⁵. There are, however, a small number of exceptions to this pattern, e.g., the added *tva* particles and *satya* readings in V at 144,3ff. In short, the scribe or scribal tradition behind V does not seem to have been quite as consciously engaged in changing the text according to understanding as the one behind P1 was. Instead, one has the impression that its tradition was more concerned with mechanically reproducing a given exemplar.

In light of this, the tendency of V to have fewer small particles becomes interesting. In many places where these particles appear in P and are omitted in V, they tend to have the effect of slightly clarifying the argument, and they tend not to be essential. This means that their absence often results in a more difficult but by no means impossible reading. This presents two possibilities: either the V branch, which was less engaged, removed such small helping words,¹⁷⁶ or the P branch, which produced good marginalia¹⁷⁷ and overall more consistently intelligent readings, intentionally added these particles to increase clarity. Between these, I find the latter more in line with philology's genetic principle of asking *utrum in alterum abiturum erat* (“which was ready to turn into the other”).

¹⁷⁴ I.e., the fact that V is written in Śāradā, which is associated with Kashmir, the assumed place where Bhāsarvajña flourished, does not prove that it is older.

¹⁷⁵ The *akṣaras tta* and *tra* are not difficult to distinguish in Śāradā. This makes it doubly strange when, seemingly in an effort to make the text more consistent in favor of *citta*, *citra* has been explicitly corrected to it once at 78v13.

¹⁷⁶ Cp., however, the frequent removal also in E_Y of just such function particles. In this case, barring significant intervention in the creation of the apograph, we have no choice but to interpret such removals as confident scribal intervention on the part of Swami Yogīndrānanda.

¹⁷⁷ We of course cannot know that the P1 scribe himself authored these notes, as notes can be copied in their entirety from one manuscript to another. In the two Jaisalmer manuscripts for the NBh project, for example, J2 appears to have done just this with the notes from J1.

It is on these grounds that I judge V to be a snapshot of an older moment of the transmission of the NBhū, located on a less intellectually engaged and probably less carefully preserving branch (as judged by its more numerous errors and eyeskips), yet luckily at times preserving original readings that would have been lost otherwise. Meanwhile, P, which is virtually complete and features vastly more scholarly support, provides a more consistent basis for reading the text, despite occasional unlucky losses of material and other (from what I can tell so far, only) small distortions.

As a final caveat, I should state that these arguments about the natures of P and V rest so far on detailed study of only one-third of the total extent of V and proportionally much less of P. More comprehensive comparative study of the extant Pratyakṣa material is therefore desirable for the sake of being able to speak more confidently about the two together. I also have no reservations in asserting the importance of finding more material like V for being able to supplement our understanding also of the later parts of the NBhū.

2.1.3 Diplomatic Transcripts

The above four sources were diplomatically transcribed in full for NBhū 104–154. The transcripts were prepared by manually comparing a template document, consisting in a pre-existing digitized version of the printed edition, against the images of each witness (printed edition included) and making all necessary changes. It is hoped that thorough proofreading will have mostly eliminated bias toward the printed edition that this approach could incur (e.g., word spacing, see just below), but some subtle effects may remain. By “diplomatic” is meant the faithful representation of all potentially relevant details, including those of orthography and scribal correction. One major exception to this principle is word spacing, which of course the manuscripts basically do not indicate at all, but which is crucial to mark especially for the sake of digital processing and presentation. My method was to first assume the spacing of the edition and to then gradually modify transcripts as I came to better understand the text, always giving the scribes the benefit of the doubt concerning better readings, including with regard to spacing. Another exception was marginal notes, in which P1 is especially rich. These notes have not yet been fully documented.

These full transcripts are presented here not in print form but instead only digitally, both as individual files and through a web interface. The plain-text source files can be found on GitHub.¹⁷⁸ For the additional option of interactively browsing the data as I did while editing, I have deployed as a Heroku web app an early version of the Bruchéion digital research environment, which first took shape in the context of the DFG NBh “Digital Critical Edition” project and is still undergoing development. The reader is encouraged to 1) visit <http://bruchéion-nbhū.herokuapp.com> in their preferred web browser, 2) “log in” to the project by entering the project name “nbhuAvayavin”, and 3) use the following links to get started with the Passage Overview¹⁷⁹ and Multicompare functions, respectively, both of which help one to more easily browse and compare the transcript data:

¹⁷⁸ See https://github.com/tylergneill/nbhu_materials > “edit_nbhu_104-154”.

¹⁷⁹ Permission to publically share the image data has not yet been obtained from the respective libraries and research centers, and thus image data currently does not show up in Passage Overview on the publically available deployment as it does during private offline use (see below screenshot).

<http://brucheion-nbhu.herokuapp.com/view/urn:cts:sktlit:skt0001.nyaya006.CrE:104,6>

<http://brucheion-nbhu.herokuapp.com/multicompare/urn:cts:sktlit:skt0001.nyaya006.CrE:104,6>

2.2 Notes on Using the Edition

This new edition improves on the work of Yogīndrānanda 1968 with regard to both the text of the chosen passage itself and transparency about sources used. It is meant for use alongside the new English translation, but it can also be read on its own.

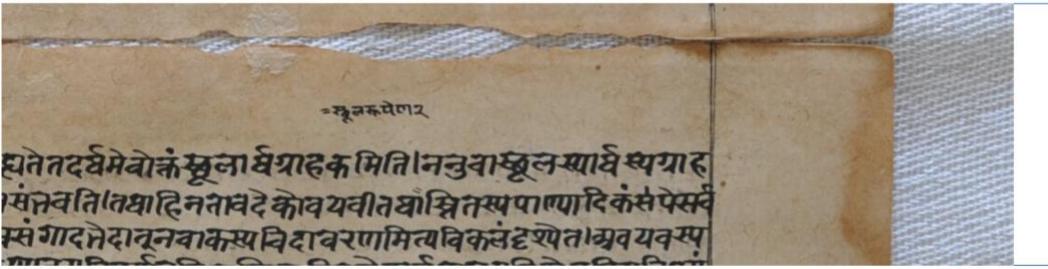
Locations within the edition are marked as follows. In the bottom margin are found the new edition's page numbers (1–45), and in the right margin, its line numbers (multiples of five shown). In the text itself, centered numbers in curly brackets with the “§” section symbol (e.g., “{ §1.2 }”) indicate position within my own analytic outline. Finally, for additional orientation and citation purposes, in the left margin and in-text are found page and line numbers of the 1968 printed edition, specifically for the beginnings of its paragraphs. For example, “104,6” marks that the first paragraph starts on page 104, line 6 of Yogīndrānanda's edition.

In fact, I put considerable thought into the latter marking of paragraph breaks, and this is reflected in the mark-up. For interpreting Yogīndrānanda's paragraph breaks, I take only prose indentation to be indicative of a new paragraph, not the greater indentation of metrical material.¹⁸⁰ When I agree with these paragraph breaks of Yogīndrānanda, they appear in the margin of my edition without modification, e.g., the paragraph starting at “104,6”. On the other hand, when I disagree, the marking of the location in Yogīndrānanda appears in-line, in parentheses, and with a minus symbol. For example, “(-107,1)” means that I choose not to read a paragraph break at 107,1 as Yogīndrānanda did. Similarly, when I choose to read an additional paragraph break, this is marked with a plus symbol. For

Tools21nbhusAvayavin

Passage Overview

= सूक्ष्मसंग्रह



The main utility of the Passage Overview mode is thus limited to seeing the full diplomatic transcript data, as opposed to the normalized text in the Multicompare view.

1: IP1D_023r1Inanu cāsthūlasyārthasya grāha
2: कर्म ना तु ज्ञानाकारस्य स्थायम् अस्ति अतो ना ज्ञानात्मकम् स्थूलम् ग्राह्यम् इति | nanu ca jñānād arthāntaram् स्थूलम् सुताराम् ना सम्भवति |

The main utility of the Passage Overview mode is thus limited to seeing the full diplomatic transcript data, as opposed to the normalized text in the Multicompare view.

¹⁸⁰ Cp. also footnote 190 below.

example, “+107,3” means that I have discerned enough of a semantic and/or rhetorical transition to warrant a new paragraph at that point.

The edition is equipped with four apparatuses, first and foremost:

1) An apparatus of variant readings. In all cases, lemmata are reported according to the new edition's own line and page numbers (the latter only when several pages are involved). The style of the apparatus of variant readings is positive, documenting readings of all sources in cases where at least one witness exhibits “significant” variation. In the case of the printed edition, any and all *akṣara*-level variation is judged as significant, although obvious typos are presented in parentheses, e.g., like “*nirākāra-*] MSS; (*nikāra*) Ev”. In the case of the manuscripts, only variations amounting to plausible (or semi-plausible) readings of alternate meaning count toward the need for an entry.¹⁸¹ Once one manuscript qualifies in this regard, all readings are generally reported as-is, unless there is a clear benefit in subsuming two or more witnesses together.¹⁸² Where no witness passes this significance test, nothing is reported in this (already quite large) apparatus. This means that there remain many cases of (what I judge to be) less interesting variant readings on the *akṣara*-level in one or more manuscripts that are not reported in this or any other apparatus. For those interested in such detail, it is hoped that direct access to the transcripts, including in the form of the interactive Brucheion system, will suffice. Moreover, those interested in the digital images can apply for access to the Vienna Nyāya project.¹⁸³

The remaining three critical apparatuses are as follows.

2) Complex Omissions, Repetitions, and Transpositions. These items are typically longer and generally do not result in plausible alternative readings, but they might come in handy as starting points for further scrutiny for readers working directly with the transcripts or images.

3) Glosses, Comments and Interpolations. These items reveal further scribal understanding, and they can include not only marginalia and interlinear notes but also in-line material judged to have been unintentionally interpolated into the text at some point in the transmission history.

¹⁸¹ Here are features that I treat as insignificant toward this end: sandhi variants; orthographic variants; malformed words; coincidentally real words that do not at all belong in context; and broken concord and/or case relationships. I also exercise judgment in rejecting certain readings that are on the one hand plausible from a naïve grammatical perspective but which, with some basic familiarity with the local context, appear so unidiomatic as to more likely be coincidentally arisen through common scribal phenomena than to represent substantial difference of understanding (e.g., the skipped *ka akṣara* in “grāhyagrāhayoh”). On the other hand, I do keep readings that cost me considerably more and subtler effort to judge as ultimately resulting in the wrong understanding of the argument (e.g., flipped negatives), in recognition that my understanding may yet be incomplete. I also keep those variants that barely or do not affect the argument at all (e.g., *tva* vs. *tā*), since in such cases confident reconstruction of the archetype is especially difficult.

¹⁸² For example, relatively meaningless variants in P2 are often subsumed under P1 for a clearer presentation as P. I also subsume many “(ac)” readings into “(pc)” readings where nothing meaningful is communicated by showing a corrected mistake.

¹⁸³ Cp. footnote 155 above.

4) Intertextual sources. These items mark where I suspect Bhāsarvajña to have sourced material from other, earlier texts. The apparatus does not take note of later texts that source material from the Nyāyabhūṣaṇa, nor texts at any time that are merely judged to be similar in some way. These apparatus entries are also reflected in the translation footnotes as links to the Vātāyana intertextuality research system.

For generating the edition PDF, I used Classical Text Editor.¹⁸⁴ This proved to be a very practical software solution not only for typesetting and maintaining numerous apparatuses (as many prefer to do with LaTeX), but also for facilitating semi-automatic collation of full transcript data and managing sigla. Side-by-side with CTE, I also used a forked early version of Bruchelion in Passage Overview and Multicollate modes, allowing very fast access to not only aligned images and texts but also real-time many-to-one global alignment of transcript and edition text data.¹⁸⁵

2.3 Critical Edition of NBhū 104–154 with Apparatuses

Note that edition page numbers run from 1–45. These pages also count for pagination of the overall dissertation document, but I do not show the latter on the edition pages, to reduce confusion.

¹⁸⁴ Final version used 10.5, running in Windows 10 on macOS 11.6.1 via Parallels Desktop 17.1.1. The exact CTE file used to produce the PDF is also available online at https://github.com/tylerneill/nbhu_materials > “edit_nbhu_104-154”.

¹⁸⁵ The author of Bruchelion is Thomas Köntges, and the project continues to be developed in the context of the DFG NBh project. Other software solutions with similar practical editing functionality include combined use of LaTeX with Charles Li's Sanskrit alignment and presentation software Saktumiva, at <https://saktumiva.org>, e.g., as used by Dominik Wujastyk for his editing work on the Suśrutasamhitā; see <https://sushrutaproject.org/saktumiva/> and <https://sushrutaproject.org/methodology/>.

{ §1.1 }

- 104,6 “nanu ca: asthūlasyāpi sukhāder grāhakam iṣṭam eva pratyakṣam.” sa-
tyam. tathāpi kecī jñānād arthāntaram grāhyam necchanti. tannirākaranā-
rtham idam uktam: sthūlasyārthasya grāhakam, na tu jñānākārasya sthau-
lyam asti, ity ato na jñānātmakam sthūlam grāhyam iti. 5
- +104,7 « nanu ca: jñānād arthāntaram sthūlam sutarām na sambhavati. tathā hi:
na tāvad eko 'vayavī tathāsti, tasya pāṇyādikampe sarvakampaprapteḥ.
akampane vā calācalayoh prthaksiddhiprasaṅgāt, vastrodakavat.
- +104,10 « ekasya cāvaraṇe sarvasyāvaraṇaprasaṅgāt, abhedāt. na vā kasyacid
āvaraṇam ity avikalām dṛsyeta. avayavasyāvaraṇam, nāvayavina ity abhyu-
pagame 'py ardhaṇvaraṇe 'py anāvṛtatvāt prāg ivāsyā darśanaprasaṅgah.
avayavadarśanadvāreṇāvayavidarśanam ity asminn api pakṣe sarvathāva-
yavino 'pratipatti-prasaṅgah, sarvāvayavānām draṣṭum aśakyatvāt. katipayā-
vayavadarśanād avayavidarśane dvitrāvayavadarśane 'pi tathābhūtasyaiva
darśanaprasaṅgah. 10
- +104,15 « rakte caikasmīn avayave yady avayavī raktah, tadānyāvayavastho 'pi
rakta eva dṛsyeta. no cet, tadā sarvāvayavarāge 'py avayavy arakta evopa-
labhyeta. 15

{ § }

- +104,16 « vṛttyanupapatteś cāvayavī nāsti. tathā hi: “gavi śṛṅgam” iti laukikam,
“śṛṅge gauḥ” ity alaukikam. tatra yady avayaviny avayavā vartante, tadaiken-
naivāvayavenākhanḍasyāvayavino 'varuddhatvād anye 'vayavāḥ kva varte-
ran? na hi mūrtānām ekadeśāvasthānam asti, na cāvayavavyatirekenāva-
yavinaḥ pradeśabhedo 'sti yenāvayavānām ekadeśatvam na prasajyeta.
ekadravyavṛttitve ca dravyasyābhyupagate yuktibādhāpi syāt. 20
- +105,6 « atha: “avayaveṣ avayavī vartate” iti pakṣah. tatrāpy ekasmīn evāva-
yave yadi sarvātmanā vartate, tadānye 'vayavās tadanāśrayāḥ syuḥ. ekā-
śrayatve ca dravyasya sadotpattir avināśāś ca syāt. atha: ekadeśenaikatrā-
25

7 tathāsti] MSS; tathā sati E_Y **8 akampane]** P E_Y; akampena V **9 cāvaraṇe]** P1 V E_Y;
ca varaṇe P2 **10 dṛsyeta]** P E_Y; dṛsyate V **syāvaraṇam]** P2 V E_Y; sya var-
ṇam P1 **11 darśana-]** P E_Y; pradarśana V **12 -dvāreṇāvayavi-]** P E_Y; dvāreṇāvaya-
vino V **api** P E_Y; *om.* V **14 dvitrāvayava]** P; dvayavaya V; yadvad atrāva-
yava E_Y **16 tadānyāva-]** P E_Y; tadānyāva V **18 labhyeta]** P E_Y; labhyate V **21 tatra]**
V; tata P1; tat P2; tato E_Y **tadaiken-]** E_Y; tad eken V; tad evaiken P2; tad eve-
ken P1 **24 sajyeta]** P E_Y; sajyate V **25 -gate]** em.; game MSS E_Y **-bādhāpi]** P E_Y;
bādho pi V **28 ca¹]** P1 V E_Y; *om.* P2 **atha eka-]** V E_Y; nyathaika P2(ac) P1; anya-
thaika P2(pc)

Complex Omissions, Repetitions, and Transpositions:

2 -sthūlasyāpi ... 4 uktam] V; *om.* P E_Y

7 na ... 18 -labhyeta] ≈ PVin 1, pp. 34,10–35,3; ~ p. 35,3–6

pāṇyādikampe ... **8 prthaksiddhiprasaṅgāt]** ~ PV 2.84

9 ekasya ... 10 dṛsyeta] ~ PV 2.85abc

16 rakte ... 18 -labhyeta] ~ PV 2.85cd

20 vṛttyanupapatteś] = NS 4.2.6

gavi ... 21 alaukikam] ~ PV 3.150

vayave vartate. na, tasyākhaṇḍasyāvayavavyatirkadeśāsaṁbhavāt. tada-bhyupagame vā teṣv api deśeṣv anyair deśair vṛttir ity anavasthā syāt.

106,3 « itaś ca nāsty avayavī: buddhyā vivecane 'nupalambhāt. na hi “ayam ta-tuḥ, ayam tantuḥ” ity evam buddhyā pṛthak kriyamāneśv avayaveṣu tada-nyo 'vayavī pratibhāti. etena “avayavadharmo 'vayavī” ity ayam api pakṣo nirastah. tasmān nāsty eko 'vayavī yaḥ sthūlapratibhāsaviṣayah syāt. 5

{ §1.2 }

+106,6 « nāpi paramāṇusamūha eva sthūlapratibhāsaviṣayah, tasya paramāṇu-vyatirkasyāvayavinyāyenāpāstatvāt. paramāṇūnām ca pratyekam na sthū-latvam asti, iti samuditānām api kathām syāt? na hi pratyekam araktānām samudāyāvasthāyām raktākāratopalabhyate, marīcīnām udakākāratāvad bhrāntopalambhaḥ syāt. 10

{ § }

106,11 « atha evam ucyate: “yadi sthūlam jñānād arthāntaram grāhyam na saṁ-bhavati, sūkṣmam eva tarhi grāhyam bhaviṣyati” iti. tad apy asat, yataḥ: 15

“ṣaṭkena yugapadyogāt paramāṇoh ṣaḍamśatā /
ṣaṇṇām samānadeśatve piṇḍah syād aṇumātrakah //” iti.

(-107,1) mūrtasya ca dikpravibhāgenāvaśyam daśāmśatayāpi bhavitavyam. na ca svarūpeṇānupalabhyamānasyāstivam śakyam abhidhātum. kiṃ ca: “ākāśavyatibhedāt”, “ākāśāsarvagatatvam vā” iti. ato na paramāṇur apy asti. tasmān na bāhyam grāhyam upapadyate. 20

{ §2.1 }

+107,3 « tad uktam: 25
“nānyo 'nubhāvya buddhyāsti tasyā nānubhavo 'parah /
grāhyagrāhakavaidhuryāt svayam saiva prakāśate //” iti.

(-107,6) svavyatirkagrāhyagrāhakavirahāt tadubhayākārā buddhiḥ svayam evātmasvarūpaprakāśikā prakāśavad iti samudāyārthaḥ.

+107,7 « api ca: 30
“sahopalambhaniyamād abhedo nīlataddhiyoh //”

(-108,1) na hi bhinnāvabhāsitve 'py arthāntaram eva rūpam nīlasyānubhā-vāt, tayoḥ sahopalambhaniyamāt, dvicandrādadarśanavat. na hy anayor

12 samudāyāvasthāyām] P E_Y; samudāye V -tā-] P E_Y; om. V **15 jñānād arthānta-ram]** V E_Y; jñānārthāntaram P **18 samāna-]** V; apy eka P E_Y **21 vā iti]** P E_Y; cety V **22 bāhyam grāhyam]** P E_Y; tr. V **27 saiva]** P E_Y; eva V **29 -sva-]** P E_Y; om. V **32 bhinnāva-]** P E_Y; nīlāva V **eva rūpam]** MSS; evamrūpam E_Y

Intertextual Sources:

3 buddhyā ... 'nupalambhāt] ~ NS 4.2.26

17 ṣaṭkena ... 18 aṇumātrakah //] = Viṁś 12

21 ākāśavyatibhedāt ... vā] ≈ NS 4.2.18–19

26 nānyo ... 27 prakāśate //] = PVin 1.38; ≈ PV 3.327

30 api ... 3 2 pratibandhakāraṇābhāvāt] ≈ PVin 1, 39,13–40,4 (incl. k. 1.54ab)

ekānupalambhe 'nyopalambho 'sti, na caitat svabhāvabhede yuktam, pratibandhakāraṇābhāvāt.

{ §2.2 }

108,4 « atha: “paścād arthopalambhasya jñānāntareṇa saṃvedanam.” tad apy 5 ayuktam, yasmāt

“apratyakṣopalambhasya nārthadrṣṭih prasidhyati /”

(-108,6) na hi viṣayasattayā viṣayopalambhaḥ, kiṁ tarhi tadupalambhasattayā. sā cāpramāṇikā na sattānibandhanān vyavahārān anuruṇaddhi. tada-prasiddhau viṣayasyāpy aprasiddhiḥ, iti sadvyavahārocchedaḥ syāt. na hi 10 sad apy anupalabhyamānam “sat” iti vyavahartum śakyate.

108,10 « atha: “arthasaṃvedanam anyena saṃvedanena saṃvedyate.” tad api 15 saṃvedanam asiddhasattākam asatkālpam katham anyasya sādhakam syāt? tatrāpi saṃvedanāntarānveṣaṇe 'navasthā syāt, tathā ca na kasyacid arthasiddhiḥ, ity andhamūkam jagat syāt. kvacīn niṣṭhābhypagame sa svayam ātmānam viṣayākāram ca yugapad upalabhatे, iti tadanye 'pi tathā bhavantu, višeṣahetvabhāvāt. tat siddhaḥ sahopalambhaḥ, tasmāt sahopalambhād abhedo 'rthataddhiyor iti.

{ §2.3 }

+108,15 « evam ca “nīlopalambhaḥ” iti, “nīlasvabhāvopalambhaḥ” iti, etāvad uktam bhavati: anādivāsanāvaśād buddhir evānekākārotpadyamānā saṃvedyate, svapnabuddhivad iti. api ca:

“dhiyo nīlādirūpatve bāhyo 'rthaḥ kiṁnibandhanaḥ /

dhiyo 'nīlādirūpatve bāhyo 'rthaḥ kiṁnibandhanaḥ //” iti. 25

(-108,20) yady ayam nīlādyākāro buddher eva dharmas tadātmabhūto 'vabhāsate, tataḥ “tadvyatirikto nīlādyartho 'sti” iti na kiṁcit pramāṇam.

+108,21 « atha: “nāyam buddher ākāra iṣyate.” tathāpi sā nirākārānyathākārā vā buddhiḥ katham nīlādeḥ sādhikā syāt? na hi pratibandham antareṇārthānta-

9 cāpramāṇikā] MSS; cāprāmāṇikī E_Y -nibandhanān] em.; nibandhanāms tad P E_Y; nībandhanād V 10 aprasiddhiḥ] P E_Y; asiddhir V 15 artha-] V; arthasya P E_Y kvacīn niṣṭhābhys-] P E_Y; kvacīd iṣṭābhys V sa] em. (PVin); ca MSS E_Y 16 ca] c. (PVin); om. MSS E_Y 21 -svabhāvopa-] P E_Y; svabhāva upa V 23 -vad] V E_Y; vid P 25 iti] MSS; om. E_Y 26 ayam] P E_Y; evam V nīlādyākāro] V; nīlākāro P E_Y 27 -bhāsate] P2 V E_Y; bhāsane P1 nīlādy-] V; nīlādir P E_Y

Complex Omissions, Repetitions, and Transpositions:

12 -saṃvedanam anyena saṃvedanena saṃvedyate tad api] P E_Y; rep. V

24 dhiyo nīlādirūpatve bāhyo 'rthaḥ kiṁnibandhanaḥ] P E_Y; om. V

Intertextual Sources:

5 atha ... 11 śakyate] ≈ PVin 1, 40,11–41,4 (incl. k. 1.54cd)

12 atha ... saṃvedyate] ~ PVin 41,6

15 ity ... 17 sahopalambhaḥ] = PVin 1, 41,12–42,1

24 dhiyo ... 25 kiṁnibandhanaḥ //] ~ PV 3.433

rād arthāntarasya siddhiḥ, atiprasaṅgāt. tadutpattipratibandhe tu nayanā-
drṣṭādīnām api viśayabhāvah syāt, svākārānarpakatve janakatvavišeṣa-
syāpy asiddheḥ. katham janakatvāvišeṣe 'pi karmakārakatvam svaviśaya-
jñānajanakatvam vā tasyaiva ucyate? ye 'py ekasāmagryadhīnatvam prati-
bandham āśritya samānakālavor eva grāhyagrāhakabhāvam icchanti, ta-
nmate 'pi nayanādrṣṭādīnām tadekasāmagryadhīnām grāhyatvam prasa-
jyate, višeṣābhāvāt.

5

109,1 « atha: “arthākāratvam višeṣah.” tathāpi bāhyārthaḥ kiṁnibandhanaḥ?
ekaḥ khalv ayam nīlākāra upalabhyate, sa jñānātmaiveṣṭah, taddvitīyas tv
ākāro na dr̄syate. so 'dr̄syamānah katham bāhyatvenāvatiṣṭheta? vyāptyasi-
ddher anumānagamyo 'pi na saṁbhavati.

10

+109,4 « anye tv evam paṭhanti:

“dhiyo nīlādirūpatve bāhyo 'rthaḥ kiṁpramāṇakah /
dhiyo 'nīlādirūpatve sa tasyānubhavaḥ katham //” iti.

(-109,7) atrāpy ayam tātparyārthaḥ: buddher nirākāratve pratikarmavyava-
sthānupapattiḥ, sākāratve ca bāhyo 'rtho 'pramāṇaka iti.

15

{ § }

+109,8 « atha brūyat: “arthākāro grāhyatvenaiva pratīyate, bodhākāras tu grāha-
katvenaiva, iti katham anayor aikyam? ekatve hi vyatyayenāpi tayoḥ prati-
bhāsaḥ syāt” iti. naitad asti, anādyupaplavavāsanāsāmarthyād evampratiti-
vyavasthopapatteḥ. tad uktam:

20

“avedyavedakākārā yathā bhrāntair nirīkṣyate /
vibhaktalakṣaṇagrāhyagrāhakākāraviplavā //
tathā kṛtavyavastheyam keśādijñānabhedavat /
yadā tadā na saṁcodyagrāhyagrāhakalakṣaṇā //” iti.

25

109,16 « asyārthaḥ: svarūpeṇāvidyamānavedyavedakākārāpi buddhir yathā
bhrāntair vyavahartṛbhīr nirīkṣyate, tathaiva kṛtavyavastheyam vyavahri-
yate. tais tu bhrāntair iyam vibhaktalakṣaṇagrāhyagrāhakākāraviplavā nirī-
kṣyate. vibhaktalakṣaṇāv iva grāhyagrāhakākārāv eva viplavo yasyāḥ sā ta-
thoktā. kim iva? keśādijñānabhedavat: yathā timirādyupaplutākṣāṇām avi-
dyamānā eva keśādayo bodhād bhinnā iva pratibhānti, tadvan nīlādayo 'pīti.

30

3 -kāraka-] V E_Y; kāra P **5 samāna-]** P E_Y; sama V **6 -sajyate]** P E_Y; sajyeta V **8 ta-**
thāpi] P E_Y; tathāsyāpi V **bāhyārthaḥ]** P1 E_Y; bāhyo rthaḥ V P2 **9 jñānātmaiveṣṭah]**
P E_Y; jñānātmano neṣṭas V **14 sa]** P E_Y; sā V **-bhavaḥ]** P2 V E_Y; bhāvaḥ P1 **iti]**
MSS; om. E_Y **15 buddher]** P1 V E_Y; buddhe P2 **nirākāra-]** MSS;
(nikāra) E_Y **18 grāhaka-]** P1 V E_Y; grāhya P2 **19 -tvenaiva iti]** P E_Y; tvene-
veti V **21 tad uktam]** P1 V E_Y; om. P2 **22 -vedakākārā]** V E_Y; vedakārā P **bhrā-**
ntair] P E_Y; bhrānter V **23 -lakṣaṇagrāhya-]** MSS; lakṣaṇā grāhya E_Y **24 kṛta-]** P E_Y;
kṣata V **27 bhrāntair]** P E_Y; bhrānter V **31 bodhād bhinnā]** P E_Y; bodhodbhinnā V

Intertextual Sources:

4 ekasāmagryadhīnatvam ... 5 grāhyagrāhakabhāvam] ~ PVA 416,1

15 pratikarmavyavasthānupapattiḥ] = TUS 254,17 (1987)

22 aveda- ... 25 saṁcodyagrāhyagrāhakalakṣaṇā //] = PVin 1.39–40; = PV
3.330cd–332ab

	yadāyam avidyānibandhana eva buddheḥ pravibhāgah, tadeyam na saṃco- dyagrāhyagrāhakalakṣaṇā. saṃcodye paryanuyojye grāhyagrāhakalakṣaṇe yasyāḥ sā tathā na bhavati. na hy avidyāsamāropitākārah paryanuyogam arhatīti.	
+109,23	« tad evam buddhivyatirktagrāhyagrāhakāsaṃbhavād buddhir evānādi- vāsanāvāśād anekākārāvabhāsate. tasmād ayuktam uktam “sthūlārthagrā- hakam” » iti.	5
	{ §3.1 }	
109,27	atra pratividhīyate: yat tāvat “nāsty eko 'vayavī, tasya pāṇyādikampe sarvakampaprāpteh” iti, tad ayuktam, vyāpter asiddhatvāt. na hi “yasya pā- ṇyādikampe sarvakampaprāptih, tasyābhāvaḥ” ity evam vyāptih kvacid grhītā. nāpi “yasya sattvam, tasya na pāṇyādikampe sarvakampaprāptih” ity evam vyāptih pareṇa dṛṣṭā. na ca dṛṣṭāntābhāve svapakṣasiddhau parapa- kṣanirākaraṇe vā kvacid dhetoḥ sāmarthyam dṛṣṭam. prasaṅgo 'py ubhaya vyāptisiddhāv ātmānaṁ labhate, prabhāpradīpaprasaṅgavat.	10
+110,5	“akampane vā calācalayoh pṛthaksiddhiprasaṅgaḥ” ity api bāhyārthā- saṃbhave 'nupapannam. na hy evam kaścid anunmattah pratyavatishthate: “nāsty eko vandhyāputrah, tasya pāṇyādikampe sarvakampaprāpteh. aka- mpane vā calācalayoh pṛthaksiddhiprasaṅgaḥ, khapuspakharaśṛṅgavat” iti.	15
	{ § }	
+110,8	“calācalayor ekatvavirodhād ekatvam abhyupagacchatāvayavinaś ca- latvam eva sarvātmanābhyupagantavyam, calācalatvam abhyupagacchatā caikatvam nābhupagantavyam” ity ayam prasaṅgārthaḥ.” iti cet, na, vaiya- rthyāt. na hi naiyāyiko vaiśeṣiko vā kaścid ekasyāvayavinaś calācalatvam abhyupagacchat, yaṁ praty ayam prasaṅgo 'rthavān bhavet.	20
110,12	“nanu: ekāvayavakampane 'py anyāvayavānām akampanād asti calā- calatvam, tena bhedasiddhiḥ.” tataḥ kim aniṣṭam? yadi nāmāvayavānām calācalatvena bhedaḥ, tato 'rthāntarasyāvayavinaḥ kim āyātam? yadā khalv avayavinaś calatvam utpadyate, tadāvayavasya kasyacid acalatve 'pi na ta- syācalatvam. yadā tu notpadyate, tadāvayavasya calatve 'pi nāvayavinaś calatvam, taylor avayavāvayavicalanayor bhinnasāmagrījanyatvena yugapa- dutpattiniyamāyogāt.	25
+110,17	ardhāvayavacalanakāle tarhi kim avayavinaś calatvam asti vā, na veti na vidmaḥ, tadā pratyayasyobhayathāpi saṃbhavāt. tathā hi: niścalatve 'pi calatsv āśrayeṣu dṛṣyamāneṣu calanapratyayo rūpādiṣ ivopapadyate. ca- laty api niścalāvayavasamavāyanmittena calanasyāgraḥāṇān niścalapra-	30

1 tadeyam] V; tad evam P; tadā evam E_Y 5 -grāhakāsaṃ-] P E_Y; grāhakākārā-
sam V 11 -siddha-] P E_Y; prasiddha V 12 -kampe] V E_Y; kampasya P 13 grhītā
nāpi] P1 V E_Y; grhītānām api P2 19 -kampe] P2 E_Y; kampa P1; † V 28 yadi] P E_Y;
om. V 30 calatvam] P E_Y; calanam V 34 ardhāva-] P E_Y; sarvāva V calatvam]
P E_Y; calanam V 35 tadā] c.; tathā MSS E_Y tathā hi niścalatve] V; tathā ni ni-
scale P1; tathāvayavini niścale P2; tathā niścale E_Y

Complex Omissions, Repetitions, and Transpositions:

17 vā ... 19 sarvakampaprāpteh] P E_Y; om. V

tyayaḥ saṃbhavati, dūrādinimittād agrītacalanavat. na caivam̄ sarvatrānā-
śvāsaḥ, saṃśayanimittānupalabdhau tanniścayopapatteḥ. anyathā hi calā-
calavyavahārasya nirmūlataiva syād iti.

{ § }

- 111,6 atha vā: saṃyogavac calanasyāpi pradeśavṛttitvam. tenaikasyāpi calā-
calapratyayavīyatvam̄ na virudhyate. “dhāvati puruṣe calanasyāpradeśa-
vṛttitvopalambhād ayuktam” iti cet, evam̄ tarhi vastrodakādisaṃyogasyāpra-
deśavṛttitvopalambhāt saṃyogasyāpi pradeśavṛttitvam̄ ayuktam. 5
- 111,10 “tatrodakādinā sarvāvayavasaṃyogaiḥ saha vastrādeḥ saṃyogopalambhād
apradeśavṛttyabhīmānah” iti cet, samānam atrāpi: sarvāvayavacala-
naiḥ sahāvayavinaḥ calanopalambhād apradeśavṛttyabhīmāna eveti. “ku-
dyādināṅgulisaṃyoge śārīrasyāpi saṃyogo 'sti, na tu hastacalane 'pi śārīra-
syā calanam” ity atra viśeṣaniścaye pramāṇam̄ na paśyāmaḥ. prakriyāmā-
trāt tu sarvavādasiddhiḥ syāt. tasmāc calanasyāpi pradeśavṛttitvād eka-
smīn avayavini saṃyogopalambhānupalambhavac calanasyāpy upala-
mbhānupalambhāv aviruddhāv iti. 10
+111,16 etenāvṛtānāvṛtatvam̄ pratyuktam. na vāvayavyupalambhe 'vayavopalambho¹
'vayavākṣasamṇikarśo vā kāraṇam̄ yenārdhatribhāgādyavayavāvara-
ne 'vayavino 'py agrahaṇam, kiṁ tarhi tatsamṇikarśo 'śeṣasahakārisahita-
ḥ. sa ca tadupalambhānumeyah, tadanupalambhena tu sahakāryasama-
grataivānumīyate. 20
- 111,20 “ardhāvaraṇe 'py avikalo 'vayavī kiṁ na dṛṣyate?” iti cet, na, abhinnā-
tmanas tasyāvikalasyaiva dṛṣṭatvāt. tasmīms tathāvayave dṛṣṭe 'vayavādivi-
śeṣāviśeṣāpekṣayā saṃdeho 'py aviruddhāḥ. tadavayavādypalambhānām
cāvayavyupalambhasya ca pratiniyatakāraṇatvān na sahabhāvaniyamāḥ.
tasmād avayavānupalambhe 'py avayavī gṛhyata iti. 25
- 111,24 yad apy uktam, “rakte caikasmin” ityādi, tad apy ayuktam. na hy avaya-
varaktatāraktatābhīyām avayavinas tathābhāvāḥ, tasya tebhyo 'rthāntara-
tvāt. api tv avayavina eva raktadravyasaṃyogo raktatā, tadabhāvaś cāra-
ktatā, iti saṃyogasyāvyāpyavṛttitvena raktāraktatvam apy ekasyāvayavino
na virudhyate. 30
- +111,27 “katham ekasyāvyāptih?” iti cet, na. saṃyogasyaiva hy evam̄ dharmo
yena yatra yatrāvayave saṃbaddho 'vayavī dṛṣyate, tatra tatra rūpādivat ta-
dupalambhakāraṇāvaiquṇye 'pi saṃyogo nopalabhyate. tathā yatra yatrākā-
śam asti, tatra tatra na karṇaśaṣkulyākāśasamṇyogenāvaccchidyate, sarvaśa-
bdānām tatsamavāyenaikaśrotraviśayatvaprasaṅgāt. ata eva śabdasyāpi 35

5 -vac] P1 V E_Y; vaśāc P2 7 tarhi] P E_Y; om. V -saṃ-] P E_Y; om. V 14 -syāpi] P E_Y;
sya V 17 etenāvṛtānā-] MSS; etena vṛtān E_Y vāvā-] P E_Y; cāva V 23 tathāvayave]
P E_Y; tathā V -viśeṣāviśeṣāpekṣayā] P1 E_Y; viśeṣāpekṣayā P2 V 30 -syāvyāpya-]
V; sya cāvāpya P E_Y -vṛttitvena] MSS; vṛttitve na E_Y raktārakta-] MSS; raktatāra-
kta E_Y 31 na] MSS; om. E_Y -rudhyate] P E_Y; rudhyeta V 35 -lambha-] V E_Y; lam-
bhaka P 36 na] P1 V E_Y; om. P2 37 -tva-] MSS; om. E_Y

Intertextual Sources:

29 raktadravyasaṃyogo ... cāraktatā] ≈ TUS 96,14 (1940)

	na vyāpyavṛttitvam, kvacid utpannasyāpi sarvaśrotraviṣayatvaprasaṅgāt.	
+112,4	evaṁdharmakatvam saṁyogaśabdādīnām “pradeśavṛtti”-śabdenāpi vyavahriyate, na punar ākāśāder akhaṇḍasya pradeśo 'sti. yady apy avaya-vino 'vayavaḥ pradeśo 'sti, tathāpi na tatrāvayavisaṁyogo vartate, sarva-syāpy avayavinah saṁyogānāśrayatvaprasaṅgāt. paramāṇos tu pradeśā- bhāvāt saṁyogo na syāt, tataś ca śarīrādyanutpattau sarvasyāgraḥapra-saṅgah.	5
+112,8	tasmād yathā tvanmate — nirvikalpakena jñānenā tad eva savikalpa-kam jñānam ātmasadṛśam kathaṁcid utpāditam, kathaṁcin neti — abhi-nnasyaivāṁśah parikalpyate, tathā saṁyogādyādhārasyāpi. ity aduṣṭam saṁyogādeḥ pradeśavṛttitvam. tasmād ekasyāpi raktāraktatvādy aviruddham iti.	10
	{ §3.2 }	
112,13	yas tarhi raktāraktair evāvayavair avayavī niśpāditah, tasya kiṁ rūpam iti? višeśānārambhād anirdeśyam eva višeśato viruddhavišeśānām kāraṇa-rūpāṇām. višeśārambhe tu virodhaḥ, na sāmānyārambhe, nīlapītādiṣu sa-rvatra rūpātmanah saṁbhavāt. nīlādivišeśarahitam api rūpam utpannam ity avayavidarśanād evāvagamyate, nīrūpadravyasya darśanāyogāt, anyarū-penānyadarśane cātiprasaṅgāt. tasmād višeśato 'nirdeśyam rūpamātram eva tatotpannam iti. citrapratibhāsas tu tatra citrāvayavasam̄bandhāt, sphatike nīlādipratibhāsanavat.	15 20
+112,19	“yady evam, dvyaṇukarūpam api viruddhavišeśarūpārambhād anirdeśyam prāptam, tataś ca tatpūrvakasya sarvasyāpy avayavirūpasyaṁnirdeśyatvam syāt. tataḥ paramāṇurūpavišeśasyātīndriyatvād rūpavišeśanirdeśo-ccheda eva syāt” iti. (-113,2) naitad evam, sarvārambhasyādṛṣṭāyattatvāt, adr̄ṣṭasya ca puruṣārthopayogikāryārambhakatvāt. tathārambhe tu na puruṣārthopayogaḥ. iti na sarvatra tathārambho rūpavišeśopalambhavirodho veti.	25
+113,4	atha vā: citram eva tadrūpam utpannam, tathaivābādhitatpratibhāsāt. “ekam tac citram ceti virodhād ayuktam” iti cet, na, ekasyāpy anekānilatvā-didharmādhikaraṇatvena citrapratibhāsaviṣayatvasam̄bhavāt, yathā gairikā-dyanekavarṇasam̄baddham vastram “citram” iti pratīyate.	30
+113,7	“nīlatvādijātīnām viruddhatvād ekatra samavāyo na yuktaḥ” iti cet, na, virodhasyāsiddhatvāt. “anyatra sahādarśanāt tatsiddhiḥ” iti cet, na, nīlatvo-	35

1 na] P1 V E_Y; om. P2 sarva-] P E_Y; om. V 2 -vṛtti-] V; vṛttitva P E_Y 4 -yavi-] P E_Y; yavinaḥ V 5 paramāṇos tu] P E_Y; paramāṇūnām ca V 8 -kalpakena] MSS; ka-lpena E_Y 11 -tvādy] V; tvam P E_Y 17 -rodhaḥ] P E_Y; rodhe V -rambhe] MSS; (ra-mme) E_Y 19 nīrūpa-] P E_Y; nīlarūpa V 20 cāti-] P E_Y; cātimātra V 21 tatotpannam] MSS; tatotpannam E_Y tatra] P E_Y; rep. V 22 -pratibhāsana-] P E_Y; pratibhāsa V 23 -višeśarūpārambhād] P E_Y; višeśārambhād V 25 paramāṇu-] MSS; para E_Y 28 -rambho] MSS; rambhe E_Y -virodho] P1(v) V; virodhāc P E_Y 29 veti] P1(v); ceti MSS E_Y

Complex Omissions, Repetitions, and Transpositions:

25 -rūpavišeśasyātīndriyatvād] P1 V E_Y; rep. P2

tpalatvayor api virodhaprasaṅgāt. “taylor ekatra darśanād avirodhah” iti cet, samānam etat.

+113,10 yuktyāpi bhinnajātīyarūpārabdhasyāvayavirūpasyañekajātyadhi karāntvam sambhāvyate: avayavarūpāñām niyamenāvayavini samānajātīyarūpār ambhakatvadarśanād iti. paramate 'py anekavāsanākhacitam jñānam citram ity astūdāharanām. jātibhedā eva hi “vyāvṛttibhedaśaktibheda”-śabdā- bhyām abhilapyante. teṣām āśrayebhyo 'nyatvam, ananyatvam veti vivādā- ntaram etat. 5

+113,15 tasmād anekajātīyadhi karāṇam ekam rūpaṁ citram. tac ca tathābhūtam api yadā kutaścin nimittād anekajātīyadarśanād ekenaiva jātiviśeṣeṇa viśi- 10 stām grhyate, tadā “śuklam” iti vā “raktam” iti vā grhyate, na “citram” iti, ya- thā dharaṇirūpam. atha vā: “śuklam” iti “raktam” iti vāvayavarūpam eva grhyate, avayavirūpasya tu “citram” iti grahaṇakāla eva pratyakṣatvam iṣyate. evam astu, nātra nirbandho 'smākam, sākyoktadūṣaṇaparihārasya 15 sarvathopapatteḥ.

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113,21 ye tv avayavinām nābhyupagacchanti, tair api citrādipratibhāsasya vi- 20 ṣayo vaktavyaḥ. paramāṇuvilakṣaṇāvayavaviṣayābhyupagame sa evāva- yavy abhyupagato bhavati. paramāñūnām tv atīndriyatvān nākṣaviṣaya- tvam, viṣayalakṣaṇarahitatvāc ca. svākārajñānajanakatvam hi viṣayalakṣa- 25 ṇām tair iṣṭam. na ca paramāñūnām svākārajñānajanakatvam asti, sarvatra sthūlādyākārasyaiva samvedanāt. vilakṣaṇākārajñānajanakasyāpi viṣaya- bhāve cakṣurāder api viṣayatvam syāt.

114,6 atha: “nīlādyākārpakatvam paramāñūnām asti, tadvaśenaiva viṣaya- 25 tvam.” tad ayuktam, yato 'yam nīlādyākāraḥ sthūlādyātmakatvenaiva sam- vedyate, nānyo 'samśliṣṭaparamāñvātmako nīlādyākāraḥ pratibhāti.

+114,8 kutaś cāyam višeṣo 'vadhāryate: “nīlādyākārasyaiva bāhyopādānatvam, na sthūlādyākārasya” iti? na hy ākāravādinā sthūlādyākāravan nīlādyākāro 'pi jñānasthād ākārād arthāntarabhūto dṛṣṭah. tat katham pratyaksānupala- mbhābhyām arthaviśeṣatadākārator hetuphalabhbhāvo vyavasthāpyate? 30 arthāpattyā tu sthūlādyākārasyāpi bāhyopādānatvasiddhiḥ syāt, samānayo- gakṣemativād iti.

+114,12 “bahavaḥ samṇivistiḥ paramāñava eva sthūlatvenāvabhāsante” iti cet,

1 eka-] P E_Y; anya V **5 aneka-**] P E_Y; ekatrāneka V **6 astūdāharanām**] P2 E_Y; astudā- haranām P1; asyāpy udāharanām V **jāti-**] P E_Y; jñānajātī V **7 -lapyante**] V E_Y; labhya- nte P **veti**] P2 V E_Y; ceti P1 **vi-**] P E_Y; om. V **9 ekam**] P E_Y; evaikam V **citram**] MSS; vicitram E_Y **10 ekenaiva**] MSS; ekaikenava E_Y **12 vā**] V; om. P E_Y **vāva-** yava-]**15 sarvathopa-**] P E_Y; samarthanopa V **18 sa**] P E_Y; om. V **evāvayavy**] P E_Y; evāyam V **19 tv atīndriya-**] P E_Y; cātīndriya V **21 -jñāna-**] MSS; om. E_Y **22 -jñāna-**] MSS; om. E_Y **24 -ākārārpaka-**] P E_Y; ākārātmaka V **25 'yam**] MSS; om. E_Y **28 -vādinā**] P E_Y; vādinām V **30 -višeṣa-**] P E_Y; višeṣo V **-phalabhbhāvo**] V E_Y; phalābhāvo P **31 tu**] P1 V E_Y; nu P2 **sthūlā- dyākāra-**] V; sthūlākāra P E_Y **syāt**] MSS; om. E_Y **33 samṇivistiḥ**] P E_Y; sanni- krṣṭah V **eva**] P E_Y; om. V **iti**] P E_Y; om. V

Intertextual Sources:

18 paramāñuvilakṣaṇāvayava- ... 19 -tvān] ≈ NV 220,3–4

na, uktatvāt: pratyekam asaṁcitāsthūleṣu paramāṇuṣu tathākāram jñānam bhrāntam eva syāt. api ca te bahavaḥ kim ekam evākāram arpayanti, uta pratiparamāṇu bhinnam iti? yady ekam evākāram jñāne 'rpayanti, tadā pratyakṣasyāpi sādhāraṇākāragrāhakatvena sāmānyavिशयत्वम् prāptam. bhrāntatvam ca, pratyekam bhinnākārāṇām ekākāreṇa grahaṇāt. citrapratibhāsaś ca na syāt, na hy ekākārasya citratā nāma.

5

+114,18 atha: "pratiparamāṇu bhinnākāram jñānam." tad apy ayuktam, abhinnajñānasyākārabhedāsaṁbhavāt. ākārabhede hi jñānasyāpi bhedaḥ syāt, tādātmyaviparyayo vā, gatyantarābhāvād iti. "iṣṭa evākārabhede jñānabhedah" iti cet, na, anubhavavirodhāt. ekam eva stambhādijñānam anubhūyate, na pratiparamāṇu bhinnāny aparisaṁkhyātāni jñānānīti. ekaikākāraparyavasitave ca jñānānām bhinnasamṛtānajñānānām iva parasparato'saṁviditākāratvāt katham bahuṣv api sthūlādyākāratvena pratipattih? iti.

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{ § }

115,1 atha: "naiva bāhyo 'rtho 'sti, iti sarvatra buddhir eva tadākārāvabhāsate" iti. tad apy ayuktam. buddhir api hy ekā satī katham citrākārā bhavet? abhinnātmanaś citratvābhupagame khalv avayavinā ko 'parādhaḥ kṛto yenāsau sarvalokaprasiddho 'pi nirākriyate?

15

115,4 atha: "nābhinnātmanaś citrākārateṣyate, kiṁ tu pratiniyatākāram yugapadutpannam anekam vijñānam «citraṁ» ity ucyate" iti. tad api na yuktam, svasaṁvedananiṣṭhatvenaikasyaivākārasyānubhavāt. na jātu jñānam jñānāntarākāram anubhavati. ananubhave ca yugapadanekākārajñānotpāda-sya katham citratvam? bhinnasamṛtānānekākārajñānavat.

20

+115,7 atha: "tair ekasamṛtānodbhavair eko vikalpaś citrākārādhyavasāyī janyate" iti. na, spaṣṭāvabhāsino 'pi citrajñānasya darśanāt, na ca vikalpasya spaṣṭāvabhāsitvam bhavadbhīr iṣṭam. vikalpo 'pi yady ekākārah, tadā katham citrākārādhyavasāyī? bhinnākāraś cet, katham abhinnasya bhinnākāratā? iti vāsanāprapañco 'py anenaiva nirastāḥ.

25

115,12 atha: "yugapadutpannānekajñānānām ekopādānajanyatvenānyonyasaṁvedyatvam iṣyate, tenānekākāropalambha eva citrapratibhāsah" iti. nai-tad asti, yadi hi jñānam jñānāntarākāram svīkurvad upalabhyate, tataḥ katham ekākāram? tadākārarahitam ca katham tat tasya saṁvedanam? tadāvārthaḥ syāt: atadātmabhūtaś ced ākārah saṁvedyate, niṣpramāṇi-

30

2 bahavaḥ] V; bahavaḥ paramāṇavaḥ P E_Y **3 prati-]** P E_Y; om. V **4 -tva-]** P E_Y; om. V **5 citra-]** P E_Y; citta V **6 na^{1]}]** P E_Y; om. V **9 -bhedaḥ iti]** P E_Y; bheda eveti V **10 eva]** P E_Y; eva hi V **11 apari-]** MSS; apara E_Y **12 parasparato-]** V; parasparatā P; parasparā E_Y **-'saṁviditākāra-]** P E_Y; visamvādikāri V **13 iti]** V; iṣyati P1; iṣyata P2; iṣyate E_Y **16 hy]** V(≈) P; om. E_Y **19 citrākāra-]** P E_Y; cittā-kāra V **20 -ekaṁ]** P E_Y; eka V **itī]** P E_Y; om. V **21 -niṣṭhatvenaika-]** P E_Y; niṣṭhatve neka V **22 ananu-]** P E_Y; anu V **-pāda-]** V; pādaka P E_Y **23 citra-]** P E_Y; citta V **24 eko ... citrā-]** P E_Y; ekāvikalpacittā V **25 -syā ... 26 spaṣṭāva-]** P1 E_Y; syā-spaṣṭāva P2; † V **27 citrā-]** P1 E_Y; cintā P2; † V **29 -eka-]** P E_Y; aikākāra V **30 ci- tra-]** P E_Y; citta V **31 -labhyate]** V E_Y; labhate P **32 tat tasya]** V; tat tusya P2; tatra-sya P1; tatrāsyā E_Y **33 niṣpramāṇikaivākāra-]** MSS; niṣpramāṇiky evākāra E_Y

Complex Omissions, Repetitions, and Transpositions:

24 janyate ... 27 -kārādhyavasāyī] P E_Y; om. V

kaivākārakalpanā syād iti.

{ §3.3 }

115,18	« astu tarhi citrādvaitam, na caivam bāhyam, tasya vivecyamānasya bhinnaṁtmano 'sambhavat. na ca jñānasyāpi vivecanam sambhavati. na hi jñānenā svayam ātmā vivecyate, tasyābhinnasvarūpasyaiva vedanāt. nāpi jñānāntareṇa, tasyāpy ātmasaṁvedanamātratvāt.	5
+115,21	« atha: “pūrvajñānākārād apratibhāsamānād idānīm kevalaḥ pratibhāsamānō 'nya iti vivecanam.” na, pūrvasya parokṣatvenāsaṁvedanāt. tadapratītau ca “tato 'ham bhinnam” iti katham pratipadyate? atha: “smṛtyā jñāyate.” na, smṛter apramāṇatvāt. “anubhavajanyatvena pramāṇam eva” iti cet, na, tajjanyatve pramāṇabhāvāt. na hy anubhavam aviditvaiva smṛtiḥ “anubhāvād aham utpannā” iti jānāti. anubhavavedane tv anubhava eva syāt, na smṛtir iti. etenānumānādijñānam nirastam. tasyāpi svasaṁvinniṣṭhatvān nānyavedane sāmarthyam asti. anyavedane hi — tadākārāpattau — tad eva syād iti.	10
+116,3	« tasmād aśakyavivecanatvād grāhyagrāhakanīlādyākārā citrā buddhir ekaiveti siddham citrādvaitam. pramāṇenetthaṁsvabhāvasyaitasyopalambhād virodhō 'pi nāsti » iti.	15
116,7	atrocye: “saṁkhyākāntāsiddhiḥ kāraṇānupapattyupapattibhyām” ity anenaiva sūtreṇa sarvasyāpy advaitavādasya nirastatvād anupapattiḥ. ta-thā caitad uttaratra prapañcayiṣyāmaḥ.	20
+116,9	kim tv etāvad iha paryanuyujyate: yadi citrādvaitavāda evābhīpreto bhavataḥ, tadā kimartham vedanīrākaraṇe mahāprayāsah? tatrāpi hi “bodhasvabhāva eka evātmā viśvākārah” iti paramārthah. tathā ca “sarvam khalv idam brahma” iti, “jñānaghana evāyam puruṣah” iti, “ekam evedam, na dvitīyam” iti ca śrutiḥ. “etasyaiva vedārthasya niścayārtham idam śāstram” ity evam eva bhavato 'pi vaktum yuktam, śārīrakādiśāstrakāravat. na tu tada-prāmāṇyam vaktum nyāyyam, tadabhinnārthatvena tvacchāstrasyāpy aprāmāṇyaprasaṅgād iti.	25
		30

4 -sya bhinnātmano] E_Y; syābhinnātmano MSS 6 ātmā] P E_Y; ātmanā V -vecyate] MSS; vicyate E_Y 8 atha] P E_Y; om. V 10 bhinna-] V E_Y; rep. P 13 -vedane] P E_Y; vedena V 17 -ākārā citrā] em. (PVA); ākārā citra V; ākāracitra P E_Y 18 pramāṇenetthaṁsva-] MSS; pramāṇatvenetham sva E_Y -syaitasyopa-] V; syopa P E_Y 24 mahā-] P E_Y; mahān V 25 tathā ca] P E_Y; tathāpi V 26 jñāna-] P E_Y; vijñāna V 27 ca] P E_Y; om. V 26 jñāna-] P E_Y; vijñāna V 27 ca] P E_Y; om. V 28 sāstram] P E_Y; ta-ttvam V

Intertextual Sources:

8 atha ... 9 na] ~ PVA 289,33–34

10 atha ... 14 smṛtir] ~ PVA 290,4–7

17 grāhyagrāhakanīlādy- ... 18 citrādvaitam] ≈ PVA 290,12–13

20 saṁkhyākāntāsiddhiḥ kāraṇānupapattyupapattibhyām] = NS 4.1.41

25 sarvam ... 26 brahma] = ChU 3.14.1

26 jñāna- ... puruṣah] ~ BĀU 2.4.12, 4.5.13

ekam ... dvitīyam] ~ ChU 6.2.1

+117,2	syād etat: (-117,3) « citrākāratāpi pratipattum aśakyatvād avāstavy eva. tathā hi: svasaṁviditam jñānam svasaṁvedanākāravedana eva nimagnatvān nākārāntaravedanam. “tadvedane ‘pi ko virodhah” iti cet, svarūpapara-rūpāsaṁbhava eva. tad dhi vedanam svarūpeṇākārāntaram vettīti na yuktam, svarūpasya svātmani vyavasthānāt. svarūpe niviṣṭam yadrūpam, tat svābhimukham eva katham param vetti? 5
+117,7	« “anyābhimukham tat” iti cet, tena tarhi svātmā na pratīyate. tataḥ sam-tānāntaravedanavan na dvayapratītiḥ. “yasya tad ābhimukhyadvayam, sa eka eva” iti cet, “dvayam etat” iti kaḥ pratipattimān? “sa eva” iti cet, punar ābhimukhyadvayam svasaṁvedanam ca tṛtīyam prasajyate. tatas trayavedane ‘para ātmābhyupagantavyaḥ. tasyābhimukhyatrayam svasaṁvedanam ca caturtham prasajyate. punar aparah, punar aparah, iti mahaty anarthaparamparā syāt. tasmād ekam eva vedanam. 10
+117,12	« tatra bhedāvabhāsa upaplava eva, iti jñānam api svarūpeṇāpratipannam asad eva, iti śūnyataivāvaśisyate. na hi tadanyāpratipattāv atadrūpa-parāvṛttam śakyam pratipattum. na cāvedanād vyāvṛttatvānavagamavedanam iti vyavasthāpayitum śakyam. 15
+117,16	« tad uktam: “idam vastubalāyātām yad vadanti vipaścitat / yathā yathārthāś cintyante viśīryante tathā tathā //” iti. 20
	(-117,19) yadi svayam evārthānām etad abhipretam — yat “vicāryamāṇo nivartate” iti — tataḥ kim atra vayam kurmaḥ? na cāvicāritaṁ vastu nyāyavādinā pratibhāsamātreṇābhyupagantum yuktam, svapnādyarthasyāpy abhyupagamaprasāṅgād iti. “katham tarhi parapakṣavyudāsenā pratyakṣā-disvarūpapratiṣṭānam?” uktam atra “sāṁvyavahārikasya” ityādi. tasmād iha sarvadharmaśūnyam pratibhāsamātram advaitam na brahmādvaitāditulyam » iti. 25
118,5	tad etad apy ayuktam, yato vede ‘pi “ekam evedam” ity avadhāraṇān na citratvām vastutah pariṇāmitvām vābhīpretam. yathā ca bhavatā samvyavahāramātreṇā sākāratvakṣaṇikatvādayo dharmā uktāḥ, tathā vede ‘pi nityatvavyāpakatvādayo dharmā iti. yathā ca bhavatānyavyāvṛttimukhenādvai- 30

1 **citrā-**] P E_Y; cittā V 2 **-viditam]** P E_Y; vedanam V 3 **-kārāntara-**] MSS; (kārāntara) E_Y 4 **-kārāntaram]** MSS; (kārantaram) E_Y 10 **-dvayaṁ sva-**] P E_Y; dvaya V 14 **-rūpeṇāprati-**] P E_Y; rūpeṇa prati V 15 **-pattāv atad-**] P1 V; pattā ca tad P2; patrā tad E_Y 16 **-gama-**] P E_Y; game V 17 **śakyam]** MSS; śakyam iti E_Y 21 **vicāryamāṇo nivartate]** P E_Y; vicāryamāṇā nivartanta V 22 **cā-**] P1 V E_Y; vā P2 23 **-syāpy ... 24 abhy-**] P E_Y; syābhy V 25 **sāṁvyavahārika-**] MSS; sāṁvyavahārika E_Y 26 **brahmādvaitādi-**] P E_Y; brahmādvaita V 29 **vastutah]** E_Y; vastunah MSS **ca]** P; om. V E_Y **bhavatā]** MSS; bhavatām E_Y **samvyavahāra-**] P1(ac) V; sāṁvyavahāra P1(pc) P2; sāṁvyavahārika E_Y 31 **-mukhenādvaitam]** V; mukhenā cādvaitam P E_Y

Intertextual Sources:

2 **svasaṁ- ... 15 śūnyataivāvaśisyate]** ~ PVA 288,15–23

14 **tatra ... eva]** ~ PV 3.212cd

19 **idam ... 20 tathā //]** = PV 3.209–210

25 **sāṁvyavahārikasya]** @ PVin 1, p. 44,2–3

- tam uktam, tathā vede 'pi "agandham, arasam, arūpam" ityādinoktam iti.
- +118,9 atha: "na kiṁcid apy astīti śūnyam abhipretam." tad ayuktam, svavaca-noccāraṇavirodhāt. "upaplava evoccāraṇam" iti cet, tathāpi yena yac copa-plūyate, tad asty eva. anyathā hi tamo 'prakāśyam evedam sarvam syād iti. 5
- +118,11 "yadi nāmāsti kiṁcit, tataḥ kim?" nanu vedanirākaranam na kartavyam, tatrāpi vidyāvidyayoh pratipādanāt. atha: "vede 'nyanirākaraṇenādvaitam pratītam. atra punar anyan na vidhīyate, na pratiṣidhyate, api tu bhedapratibhāsasya mithyātvapratipādanād evādvaitam" iti. tad ayuktam, yāvad dhi bhedo na pratiṣidhyate, tāvat tatpratibhāsasya katham mithyātvapratipādanam? 10
- +118,16 « nanu: parāmarśād eva bhedavedanam atathyam. tathā hi: svaparave-danam yadi bhedavedanam, tadā "svasamvedanam paravedanam ca" ity uktam syāt. tathā ca svasamvedanam svātmanīṣṭham, paravedanam api parasya svātmani niṣṭham, iti naikam api bhedavedanam. 15
- +118,18 « atha: "nīlapītādivedanam bhedavedanam." tad apy asat, yato nīlavedanam nīlātmanīṣṭham, pītavedanam pītātmanīṣṭham, iti sarvam vedanam svasamvedanam eva, iti kim atra bhedavedanam? atha: "anekanīlādyarthaviṣayam ekaṁ vedanam bhedavedanam." tathāpi "tad eva nīlavedanam, tad eva pītavedanam" ity abhinnavedanasyaiva paryāyābhidhānamātram syāt. na cābhinnavedanād bhinnavyavasthā yuktā, atiprasaṅgāt. tasmān na bhedapratibhāsaḥ samyak » iti. 20
- 118,24 tad etad ākāśacarvaṇam iva saugatābhidhānam asambaddham eva pratibhāti. tathā hi: bhedapratibhāsas tāvat sarveṣāṁ bhavati, tasyāsatyatā kutah pratīyate? kiṁ tata eva pratibhāsāt, uta pratibhāsāntarād iti? "tata eva" iti na yuktam, tasya bhedaviṣayatvāt. na hi "bhinnā ete 'rthāḥ" iti pratibhāsaḥ svātmano 'satyatāṁ niścinoti, tanniścaye hi viparyayāt pravṛttir na syāt. 25
- +119,4 atha: "jñānāntareṇāsatyatā niścīyate." tad api jñānāntaram svasamvedananiyatam katham anyasyāsatyatām vetti? atha: "ubhayaviṣayam." katham na bhedāvagatih? "ubhayaviṣayatve 'pi na bhedāvagatih" iti svavaca-nnavirodhah. "parābhyupagamenābhidhānād avirodhah" iti cet, sa parābhyupagamaḥ kiṁ svābhyupagamābhedenāvagataḥ, atha bhedeneti? yady abhedenāvagataḥ, tadāsau svābhyupagama eva syāt. atha: "bhedenāvagataḥ." tadā tadavastha eva virodhah. 30
- +119,10 "lokavyavahārānuvāda esah" iti cet, sa khalu lokavyavahārah tattvadṛṣṭer arthāntaram, anarthāntaram veti. yadi nārthāntaram, tatas tattvadṛṣṭir eva lokavyavahārah, tatas tadvyavahārād eva bhedasiddhiḥ. atha: "tattvadṛṣṭer arthāntaram lokavyavahārah." tataḥ katham na bhedaḥ? "upaplava

4 -plūyate] E_Y; plūyayate P1; **—yayate** P2; plavate V **eva anyathā]** P E_Y; evānya-thā V **'prakāśyam]** P; 'kāśyam E_Y; py akāśyam V **11 parā-]** P E_Y; aparā V **eva]** P E_Y; eva tad eva V **svapara-]** P E_Y; svasamvedanam para V **12 -vedanam tadā]** P E_Y; vedana V **14 svātmani]** P; svātma V E_Y **28 -tā]** V; tān P; tvam E_Y **-vedana-]** P E_Y; vedane V **29 -tām]** MSS; tvam E_Y **30 -viṣaya-]** MSS; (viṣa) E_Y **31 sa]** P E_Y; om. V **32 -gamābhedenāva-]** P E_Y; gamād abhedenāva V **-gataḥ]** P E_Y; ga-tito V **34 tadā]** V; om. P E_Y **35 cet]** MSS; cet na E_Y **36 -drṣṭir]** P E_Y; drṣṭer V **37 -vyavahārād]** MSS; (vyavahārād) E_Y

eṣah” iti cet, so 'pi tattvadarśanād bhinnah, athābhinnah. iti pūrvavat prasāṅgah. (-119,15) “sāṃvṛto 'sti bhedah” ity api na yuktam. samvṛtir api tattva-dṛṣṭer anyā, ananyā vā, ity anivṛttah prasaṅgah.

- +119,16 tasmād advaitavādinām paramaunam jyāyah. punar apy advaitam vi-
stareṇa nirākariṣyāmaḥ. (-119,19) svasaṃvedanavādī tāvad anuyujyate: 5
vedyavedanabhedādhyavasāyasya mithyātvam kena niścīyate? na tāvat te-
naiva, tasya bhedaniścayarūpatvāt. nāpi jñānāntareṇa, jñānasya jñānānta-
raviśyatvānabhyupagamāt. abhyupagame vā “grāhyagrāhakavaidhuryāt”
ity ayam hetur asiddhaḥ syāt. atha: “bhrāntyā jñānasya jñānāntaraviśaya-
tvam.” na, bhrānter apramāṇatvāt. etac cānumāne pratipādayiṣyāmaḥ. 10

{ § }

- 119,24 kā ceyaṁ bhrāntih? kiṁ svākāragrahaṇamātram, kiṁ vānyatra svākārā-
ropaṇam, uta svātmāny anyākārāropaṇam iti? na tāvat svākāragrahaṇamā-
tram bhrāntih, sarvajñānānām bhrāntatvaprasāṅgāt. nāpy anyatra svākārā-
ropaṇam bhrāntih, tadanyasminn adṛṣṭe svākārāropaṇāsambhavāt. na hi 15
sarvathānupalabdhe 'rthe kasyacid ākārasyāropaṇam dṛṣṭam.

- +120,2 atha: “svātmāny anyākārāropaṇam bhrāntih.” tatrāpi kiṁ dṛṣṭākārāropa-
ṇam, athādṛṣṭākārāropaṇam iti? dṛṣṭākārāropaṇam tāvan na yuktam, mi-
thyākārasyādṛṣṭatvāt. na hi bhavatām mate grāhyagrāhakabhedādhyavasā-
yasya mithyātvam kvacid adhyakṣeṇopalabdhām yadākārāropaṇam jñānā-
ntare syāt. 20

- +120,5 atha: “adṛṣṭākārāropaṇam.” tan na, adṛṣṭākārāropaṇādarśanāt. sarvatra
hi bhrāntau dṛṣṭasyaiva pītādyākārasya śamkhādāv āropaṇam dṛṣyate. ca-
ndrādiṣv api dvitvādīdharmasyānyatra dṛṣṭasyaivāropaṇam iti. yadi vādṛṣṭā-
kārāropaṇam bhrāntih, tadā sā dvicandrādibhrāntivat tadākārāvisamvādinī 25
na syāt. tataś ca grāhyagrāhakabhedādhyavasāyasya mithyātvajñānam
apramāṇam eva syāt, tadaprāmāṇye ca grāhyagrāhakabhedādhyavasāyah
samyag eveti.

- +120,10 bāhyārthabhrāntāv api sarvathānupalabdho bāhyārthākārah katham
āropyate? na hi rājakośaratnaviśeṣākāro 'taddarśinā kvacid āropito dṛṣyate. 30
api ca bhrāntau bāhyārthākārah kiṁ jñānāntareṇāropyate, atha saiva tadā-
kāreti? jñānāntareṇa tāvan nāropyate, tadaviśyatvāt. na hy aviṣaye — ra-
sādiṣv iva cakṣuṣā — kaścid ākārah kenacid āropyate, na ca tvanmate jñā-
nam jñānāntarasya viṣayaḥ.

- +120,15 atha: “bhrāntir eva tadākārā” iti. na, abhinnātmano 'nekākāravirodhāt. 35
atha: “avidyamānaivānekākāratāvabhāti.” na, sarvaśūnyatāvakāśaprasi-
ṅgāt, tatra ca doṣa uktaḥ. asatkhyātivādaś ca syāt, sa ca bhavataḥ svakṛtā-
ntavirodhī.

- +120,18 atha: “anekākāratvam jñānasyaiva svabhāva iṣyate, na cātmīyenāiva

3 anivṛttah] P E_Y; anivṛtti V **4 para-**] em.; param V; varam P E_Y **14 bhrāntih]** P E_Y;
bhrāntam V **17 bhrāntih]** P E_Y; om. V **tatrāpi]** P E_Y; tathātrāpi V **dṛṣṭākārāropa-**
ṇam] P E_Y; dṛṣṭāropaṇam V **22 -ropaṇādarśanāt]** P E_Y; ropanāsambhavāt V **24 vā-**
dṛṣṭā-] P E_Y; vādṛṣṭā V **26 na]** P E_Y; om. V **-sya]** P E_Y; om. V **27 eva syāt]** P E_Y;
avaśyan V (≈) **ca]** P E_Y; om. V **28 eveti]** P E_Y; iti V (≈) **29 -labdho]** V; la-
bdhau P E_Y **35 'nekākāra-]** MSS; bhinnānekākāra E_Y **39 na]** P E_Y; tena V

svarūpeṇa kasyacid virodhaḥ” iti. nanv evam tarhi kiṁ samastamaryādāti-krameṇa? varam bāhyārthasyaiva tadrūpam iṣyatām. tadabhyupagame hi na lokavirodhaḥ, na yuktivirodha iti. na hi dharmadharminor ekatvam abhyupagacchataikasyānekākāratvavirodhaḥ parihartum śakyate, sarvajagatsvabhāvābhupagame ‘py ekasya virodhābhāvaprasaṅgat. tasmād anekadharmaḍhikaraṇam ekam evāvayavino rūpam ity abhyupagame na kaścid virodho ‘sti.

5

{ § }

121,2 yac cedam uktam, “dhiyā vivecyamānasya bāhyasyāsaṁbhavāt, na tu jñānasya vivecanam saṁbhavati” iti, tad aparyālocitābhidhānam. svasaṁvedanapakṣe hi jñānam tāvad upalabdhiyogyatvāt kadācid vivecayitum śakyate. bāhyam punar atyantānupalabhyasvabhāvam katham vivecyate? na hy adṛṣṭvā rājāntahpurābharaṇādikam vivecayitum śakyate.

10

+121,5 “jñānākārasya bāhyatvenābhimatasya dr̄syatvād vivecanopapattih” iti cet, kiṁ tadvivecanāt tasyaivābhāvah, athānyasyeti? “tasyaiva” iti na yuktam, jñānasya nirākāratvaprasaṅgat, tataś ca citraikatvavirodhaḥ. nāpy anyasyābhāvah. anyavivecane hy anyābhāvasiddhau traiokyābhāvah syāt.

15

+121,9 atha: “tasyaiva jñānād arthāntaratvam niśidhyate.” na, aprastutatvāt. nātra jñānād arthāntaratvam anarthāntaratvam vā prastutam, kiṁ tu “citrākāratā katham ekasya?” iti prastutam. tatra jñānānarthāntaratve citrākāratāyāḥ sutarām anupapattir ity uktam.

20

+121,12 atha: “bāhyasyānekaiḥ puruṣair vivecanād anupapattih. jñānam punaḥ svasaṁvedanamātratvād anekākāram ātmānam viditvā nivṛttam kena vivecyate?” tad ayuktam. jñānasya jñānāntarāviśayatve hy advaitavāda eva syāt. kathaṁcid viśayatve vā tathaiva vivecanam api, iti katham vivecanānupapattih?

25

+121,15 “bāhyasyānekaiḥ puruṣair vivecanād anupapattih” ity etad api vyāhata-tvād ayuktam. yasya hy anekapuruṣajñānaviśayatvam, tasya kuto ‘sattvam? “bhrāntitas tasyānekapuruṣajñānaviśayatvam” iti cet, bhrāntam tarhi vivecanam, tato ‘pramāṇatvān nāsattvasādhakam. “bhrāntir apy arthaśaṁbandhataḥ pramā” iti cet, tad ayuktam, bāhyārthena saha bhrānteḥ saṁbandhābhāvāt. tatsaṁbandhe vā na tasyāsattvam iti.

30

121,21 api ca kiṁ avayavibuddhyāvayavī vivecyate, athāvayavabuddhyeti? na tāvad avayavibuddhyā vivecyamānasyāvayavino ‘sattvam sidhyati, tasyās tatsattvagr̄hītirūpatvāt, nīlādibuddhivat. yadi punas tatsattvabuddhyā tadasattvam vyavasthāpyate, tadā tadasattvabuddhyā tatsattvam vyavasthāpyata iti syāt. tataḥ sādhvī vyavasthitih.

35

+121,25 atha: “tadasattvabuddhyā vivecyamānasya tasyāsattvam.” bhavatv

1 tarhi] P E_Y; sati V kiṁ] P E_Y; om. V 3 iti] P E_Y; om. V 4 -tva-] P1 E_Y; tve P2; om. V 9 -vecya-] V; vicya P E_Y 12 -labhya-] P; labhyamāna V; laṁbha E_Y 16 ca] P E_Y; om. V 19 -tvam an-] MSS; tvān E_Y 20 jñānānarthāntara-] P; jñānād arthāntara V E_Y 27 ity] MSS; itīti E_Y 30 -sādhakam] P E_Y; sādhanaṁ V 31 pramā iti] P E_Y; pramitiś V saha] MSS; hi E_Y 34 -buddhyā] MSS; buddhyeti E_Y

Complex Omissions, Repetitions, and Transpositions:

15 kiṁ tadvivecanāt tasyaivābhāvah athānyasyeti] P1 V E_Y; rep. P2

	evam yatra tadasattvabuddhir abhrāntāsti. na ca sarvatra ghaṭādyasattva- buddhir bhavati. tato na sarvatrāsattvasiddhiḥ.	
+122,2	atha: “avayavabuddhyā vivecyamānasya tasyāsattvam.” tad ayuktam, yato ‘vayavabuddhir avayavānām eva sattvam̄ vidhatte. nāvayavinaḥ sa- ttvam̄ vidhātum̄ pratiṣeddhum̄ vā śaknoti, tadaviṣayatvāt tasyāḥ.	5
122,5	atha: “avayaveśūpalabhyamāneśv avayavī nopalabhyate, tato ‘sau nā- sty eva’ iti. evam̄ tarhi gandhasparśarūpeśūpalabhyamāneśu raso nopalabhyate puruṣāntarajñānam ca, tatas taylor apy abhāvah̄ prāpnoti. “indriyā- ntareṇa rasasya puruṣāntareṇa tajjñānasya copalambhān nābhāvah̄” iti cet, evam̄ tarhy avayavino ‘py upalambhāntareṇopalambhān nābhāvah̄. tathā hi: bhinnākārah̄ pratibhāso ‘vayaveśv eva bhavati, avayavini tv abhinnākārah̄ pratibhāsa iti.	10
+122,10	“abhinnendriyaviṣayatvāt” iti cet, na, nīlapītādibhir anekāntāt. api cendri- yāṇām eva katham̄ bhedah̄? “pratibhāsabhedāt” iti cet, sa evānyatrāstu. kim indriyabhedopanyāsenā?	15
+122,12	atha: “avayavī yady asti, kim ity avayavavyāvṛttah̄ kasyacid api na prati- bhāti?” ka evam āha “mamaiva tāvat pratibhāti”? “bhrāntir eṣā tava” iti cet, tavaivābheda pratipattir bhrāntih̄. sarvalokavyavahārāvisamvādinī khalv eṣā mama pratītih̄ — bahubhis tantubhir ayam ekaḥ paṭo niṣpādita iti — katham̄ bhrāntih̄ syāt? tathotpādo ‘pi kṣaṇabhaṅganiṣedhād anupapannaḥ. tasmān na vivecanād abhāvo ‘vayavinaḥ.	20
+122,16	etenā “tantvapakarṣaṇe paṭabuddhyanupapattiḥ” ity apāstam. yadi hi ta- ntūnām viśleṣaṇam apakarṣaṇam vivakṣitam, tataḥ samyogavināśād abhā- vas tasyeṣyata eva. na ca yasya pradhvamsah̄, tasyātyantāsattvam, jñāna- syāpy atyantāsattvaprasaṅgāt. buddhyāpakarṣaṇam tu vivecanenābhinnā- rthatvāt tanniṣedhenaiva niṣiddham iti.	25

{ §3.4 }

122,22	yad api svasaṃvedanamātrasiddhyartham “svābhimukham̄ parābhimuk- ham̄ ca” ityādikam uktam, tatra jñānasya svasaṃvedyatvam̄ nāstīti va- kṣyāmaḥ. tena svābhimukhyam̄ neṣyate. parābhimukhyam̄ jñānadharma- ‘bhyupagamyata eva, yasya viṣayaviṣayibhāva iti samjñā. tadavedane ‘py arthasya vedanād anavasthāpi nāsti.	30
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1 ca] MSS; om. E_Y 3 tad] MSS; tad apy E_Y 4 eva sattvam̄] P E_Y; evāsattvam̄ V 6 avayavī] MSS; (avayavī) E_Y tato] P1 V E_Y; to P2 8 puruṣāntarajñā- nam̄] P; puruṣāntarajñānam̄ E_Y; puruṣāntaram̄ jñānam̄ V 11 bhinnākārah̄] MSS; bhinnā- kāra E_Y 13 abhinnendriya-] P E_Y; bhinnendriya V -tvāt] V; tvān na bheda P E_Y na] P E_Y; om. V anekāntāt] MSS; anaikāntāt E_Y 14 -trāstu] V; trāpy astu P E_Y 15 indriya-] MSS; (indraya) E_Y 17 mamaiva] P E_Y; mameva V 18 tavaivābheda-] MSS; tathaivābheda E_Y -pratipattir] V E_Y; pratipa- tti P 19 mama] P E_Y; sā V 20 'pi] P E_Y; pi na V -pannah̄] MSS; patteḥ E_Y 22 -ka- rṣaṇe] MSS; karṣaṇena E_Y -buddhyanupapattiḥ ity] MSS; buddhir anupapa- nneti E_Y apāstam] MSS; nirastam E_Y 29 -mukham̄¹] MSS; mukhyam̄ E_Y -mu- kham̄²] MSS; mukhyam̄ E_Y 30 -syā] P E_Y; om. V 31 -mukhyam̄¹] E_Y; mukham̄ P; mu- khatvam̄ V neṣyate] P E_Y; veṣyate V -mukhyam̄²] E_Y; mukham̄ P; mukhyam̄ ca V 32 iti] MSS; om. E_Y

+123,3	dharmadharmiṇoś ca bhedān na dharmabhede dharmiṇo 'pi bheda iti vakṣyāmaḥ. yataś cābhinne 'pi jñāne nīlapītādayo 'nekārthāḥ kecid avabhānti, tasmād idam apy ayuktam: “na cābhinnavedanād bhinnārthavyavasthā yuktā, atiprasaṅgat” iti. tasmād ekasyāpi jñānasyānekārthavedane ko 'pi na doṣa iti.	5
	{ § }	
123,8	yad apy avayavinirākaraṇe “vṛttyanupapatteḥ” ity uktam, tatra kim idam svatantrasādhanam, atha prasaṅgāpādanam iti? svatantrasādhanam tāvan na yuktam. na hi bhavatām pakṣe kasyacid api kārtsnyenaikadeśena vā kvacid vṛttir asti, ity ato vṛttyanupapatteḥ sarvasyāpy abhāvah pṛapnoti.	10
+123,11	nāpi prasaṅgasādhanam, pradīpaprabhāvad vyāptyasambhavāt. vyāptyabhyupagame vā prabhāpradīpavad eva na kṛtsnaikadeśābhyaṁ avaya-vivṛtter atyantābhāvah. vyāpakābhāvasiddhau hi vyāpyābhāvasiddhir yuktā. na cātyantānupalabdhāyā vṛtter vyāpakatvam̄ śakyam avagantum. tat kātham vṛttyabhāvād avayavino 'sattvam? kvacid vyāpakatvāvagame 'pi nāvavavino 'tyantābhāvah.	15
+123,15	“pareṇa vṛtter avayavivyāpakatvābhupagamāt” iti cet, tad ayuktam. evam hi pareṇa mūlaprakṛter aśeṣakāryavyāpakatvābhupagamāt tanni-vṛttau sarvasyāpi bodhābodhasvabhāvasya kāryasyābhāvah syāt. na ca parair avayavinaḥ kṛtsnaikadeśābhyaṁ vṛttir abhyupagatā, ity atah parābhyupagamavirodhodbhāvanam api nopapadyate. “bhinnesv avayaveṣ abhinno 'vayavī samavāyavṛttaiva vartate” iti hi parābhyupagamah, samavāyaś cāsyāstīti vakṣyāmaḥ.	20
	{ § }	
123,21	vamśo 'pi stambheṣu samyogavṛttyā vartate, naikadeśena, ekadeśasyāvṛttitvāt. “katham tarhi «vamśah stambheṣv ekadeśena vartate» iti pratītiḥ?” neyam durghaṭā: deśo 'vayavinaḥ khalv avayavaḥ, tenaikenāvayavena saha samyuktam ca sampaśyatas tathāpratītir iti. na punar ekadeśa eva vṛttir vṛtihetur vā, paramāṇvākāśadeḥ samyogābhāvaprasaṅgat, tataḥ sarvakāryānutpāda eva syād iti.	25
124,3	atha: “yad ekam, tad ekatraiva vartate, yathā rūpam. ity ato 'vayavyāder ekatvam abhyupagacchatānekavṛttitvam̄ nābhupagantavyam” iti. na, tulyapramāṇasiddhatvāt. yata eva pramāṇād rūpasyaikavṛttitvam̄ siddham, tata evāvayavyāder anekavṛttitvam̄ siddham kiṁ neṣyate? yathā vā rūpāśrayasyānekair gandharasādibhiḥ saha samavāyah, tathāvayavyāder apy anekāśrayaiḥ saheti ko 'tra virodhah?	30 35

1 -bhede] P E_Y; bhedād V 2 kecid] P E_Y; om. V 3 -vedanād] V E_Y; vedanā P 7 yad] E_Y; yady MSS -patteḥ] MSS; pattir E_Y 9 pakṣe] P E_Y; mate V 11 -vad] P E_Y; vāda V 12 prabhā-] V; prabhāva P; om. E_Y avayavivṛtter] P E_Y; avayavani-vṛtter V 13 -siddhir] MSS; (siddhar) E_Y 18 -prakṛter] P E_Y; pravṛtter V 22 hi] MSS; om. E_Y cāsyāstīti] MSS; 'syāstīti E_Y 26 vamśah] em.; vamśa MSS E_Y vartate] V E_Y; varttana P 27 avayavaḥ] V E_Y; avayavās P 28 ca sam-] P E_Y; vamśam V -paśyatas] P E_Y; paśyāmaḥ V iti] P E_Y; bhavati V 33 siddham] P E_Y; prasiddham V

Complex Omissions, Repetitions, and Transpositions:

34 anekavṛttitvam̄ ... 35 -āder] P E_Y; om. V

124,8	nanu ca: “ <i>vṛkṣe śākhā, gavi śṛṅgam</i> ” iti sarvesām pratītih. tat katham avayavānām āśrayatvam?” iti. na, anyathā tatpratīteḥ: <i>vṛkṣādyavayavini ya-thāvasthite tadadhastanāvayavasambandhapratibandhād apatantam śā-khādyavayavam paśyatām vṛkṣādau tadaśrayabuddhir bhavatīti. avayavā-nām tv āśrayatvam, teṣu satsv evāvayavino ‘vasthitih, asatsu cābhāva eveti. etena rūpādīnām api dravyāśritatvam vyākhyātam.</i>	5
+124,12	taddarśanān nityānām apy āśritatvam kalpyate. tathā sāmānyānām nityānām api piṇḍeṣv evopalambhāt sadvyavahāraviśayatvam, nāsatsu piṇḍeṣu. ity atas tadāśritatvam vyavahriyate. tasmāt	
	“syād ādhāro jalādīnām gamanapratibandhataḥ / agatīnām kim ādhāraiḥ guṇasāmānyakarmaṇām //”	10
(-125,3)	(-125,3) ity etad apy aparyālocitārthābhidhānam. na hi gurutvapratibandhaka evādhāro loke prasiddhaḥ, kim tv anyathāpi, yathā darpaṇe mu-kham, śarīre duḥkhādayaḥ, khaḍge dīptir iti. tasmād avayavyādes tāvad ekasyānekaiḥ saha — dravyasyaikasya rūpādibhir anekair iva — saṃbandhavišeṣo yatnena sādhyate. tatrādhārādheyabhāvo yathāsaṃbhavam ka-lpyatām iti.	15
125,8	atha: “rūpādīnām api dravye samavāyo neṣyate.” kimāśrayas tarhy ayam prasaṅgah “yad ekam, tad ekatraiva vartate” iti? api ca rūpaṁ rūpāntaram utpādayati kiṁ sarvātmanā, athaikadeśeneti? yadi rūpāntarotpā-dane sarvātmanā rūpaṁ paryavasitam, tadāsyā jñānādijanakatvam na syāt. na hi tasyātmabhedo ‘sti. nāpy ekadeśena, nirbhāgasya deśābhāvāt, deśa-syaiva janakatvaprasaṅgāc ca. jñānam api kiṁ sarvātmanā rūpād utpan-nam, utaikadeśeneti? sarvātmanā ced rūpād utpannam, jñānāntarād utpan-naṁ tarhi na prāpnoti. nāpy ekadeśena, tasya deśābhāvāt.	20
125,15	“vijñānamātravādino nāyam prasaṅgah” iti cet, na, tatrāpy ekasya jñā-nasyānekajñānajanyatve ‘hekajñānajanakatve ‘hekākāravedakatve ca pra-saṅgo na nivartate. tadanabhyupagame vādvaitam eva syāt, tatra coktaṁ doṣajātām vakṣyate ca. etenādhipati-pratyayasamanantarapratyayabhāvo ‘py anupapanno draṣṭavyaḥ. tasmād vṛttikalpenāvayavinam nirākurvataḥ svaśāstrārtha ‘pi nivartata iti.	25

4 -āśraya-] MSS; āśrayatva E_Y **bhavatīti**] V; bhavaty P E_Y 5 -tvam] P E_Y; tvena V **satsv evāvayavi-**] P E_Y; avayaveṣu avayavi V 6 eveti] P E_Y; iti V 7 **ka-ipyate**] V E_Y; kalpate P 8 **api piṇḍeṣv**] P E_Y; sapiṇḍeṣv V **sad-**] V; tad P; na E_Y 10 **-bandhataḥ**] V; bandhanaḥ P E_Y 11 **ādhāraiḥ**] P E_Y; ādhāro V 13 **loke**] P E_Y; loka V **anyathāpi**] P E_Y; anyathā V 15 **rūpādibhir**] E_Y; rūpādy V; rūpānā-mady P 16 **tatrā-**] P E_Y; atrā V 20 **svartātmanā athaikadeśeneti**] P E_Y; svartātmanai-kadeśena vā V(≈) yadi ... 21 **svartātmanā**] P E_Y; svartātmanā yadi V 23 **ca**] P E_Y; om. V **kiṁ**] P E_Y; om. V 27 -janyatve ‘nekajñāna-] P1 E_Y; om. P2 V 28 -anabhyu-pagame] P E_Y; abhyupagame V(≈) **vādvaitam**] MSS; cādvaitam E_Y 29 **-jātam**] V; jā-lam P E_Y

Complex Omissions, Repetitions, and Transpositions:

23 **rūpād utpannam utaikadeśeneti svartātmanā ced**] V E_Y; rep. P(≈)

Intertextual Sources:

10 **syād ... 11 guṇasāmānyakarmaṇām //**] = PV 2.66

+126,1	“ekasyaiva jñānasya tādṛktvabhāvah” cet, avayavino 'pi tarhi tathābhūtah svabhāvah samānayogakṣemativān na paryanuyojyah.	
	“yatrobhayoh samo doṣah pariḥāraś ca tat samah / naikah paryanuyojyah syāt tādṛgarthavicāraṇe //”	
126,6	“itas tarhi nāvayavī pṛthag asti: avayavāgrahe tadagrahād iti. yasyāgrahe yan na gṛhyate, tan na pṛthag asti, yathā candrāgrahe candrāntaram” iti. nāyam hetuh, anaikāntikatvāt. tathā hi: kṛttikāntarāgrahaṇe kṛttikāntaram na gṛhyate, atha ca bhinnāḥ kṛttikāḥ santi. asiddhatā ca hetoh. tathā hi: dūrāt tantvādyavayavānām agrahe 'pi paṭādir avayavī gṛhyate.	5
	{ § }	10
+126,10	na ca tantvādirūpeṇāpratibhāsane 'pi tantvādigrahaṇam kalpayitum śākyam, atiprasaṅgād iti. “senāvanavad grahaṇam” iti cet, “na, atīndriyatvād aṇūnām.” syān matir eṣā: “yathā hastyaśvarathādīnām vṛkṣāṇām ca dūrāt tadrūpāgrahaṇe 'pi na tato 'nyatra «senā» iti «vanam» iti ca grahaṇam, tathā dūrāt tantvādirūpeṇāgrahaṇe 'pi teṣv eva paṭādibuddhiḥ” iti.	15
+126,14	paramāṇuvyatiriktās tantvādayo 'py avayavyanabhyupagamān na vi-dyante. kathām teṣv api paṭādibuddhiḥ? “paramāṇuṣ eva” iti cet, na, atīndriyatvād aṇūnām. na hi bhrāntir apy atīndriyeṣu indriyād bhavitum arhati. na hi cākṣuṣam jñānam rasādiṣu bhavati. yathā ca paramāṇuṣ atīndriyeṣv indriyajam jñānam na bhrāntam, nāpy abhrāntam yuktam, tathā tadgateṣu guṇādiṣv api. ity avayavyabhbāvāc chabdasukhāder apy utpattir na bhavati, iti tadgrahaṇam api na syāt. etad evāha: “sarvāgrahaṇam avayavyasi-ddheḥ” iti.	20
+126,20	“keśasamūhe taimirikopalabdhivat” iti cet, atha manuṣe: “yathā timiro-pahatacakṣuṣaḥ pratyekam na keśāḥ pratibhānti, saṃhatās tu pratibhānty eva, tathā paramāṇavo 'pīti. yathā cānupahatacakṣuṣaḥ pratyekam api keśāḥ pratibhānti, tato na sarvathātīndriyāḥ, tathā yogināḥ paramāṇavaḥ pratyekam pratibhānti, tatas te 'pi na sarvathātīndriyāḥ” iti.	25
+127,2	evam tarhi na kiṃcid atīndriyam astīti pṛāptam, sarveṣām yogīndriyavi-ṣayatvāt. tataḥ sarve 'py arthāḥ paramāṇuvad asmadādibhiḥ kadācid indri-	30

3 yatrobhayoh] em.; yaś cobhayoh MSS E_Y **4 naikah]** P E_Y; anekaḥ V(≈) **7 nāyam]** P1 V E_Y; no yam P2 **-grahaṇe]** P E_Y; grahe V **8 atha ... bhinnāḥ]** P E_Y; na cābhi-nnāḥ V **-tā]** MSS; tvāc E_Y **11 tantvādi-]** tamtvādi P1(ac); tattvādi P1(pc) P2 V E_Y **-bhāsane]** P E_Y; bhāsamāne V **14 grahaṇam]** P E_Y; grahaṇam iti V **19 ca]** P E_Y; om. V **20 na ... abhrāntam]** P E_Y; tr. V(≈) **21 avayavyabhbāvāc]** MSS; avayavābhāvāc E_Y **bhavati ... 22 iti]** P E_Y; sambhavatīti V **26 cānupa-** P E_Y; vānupa V

Intertextual Sources:

- 3 yatrobhayoh ... 4 tādṛgarthavicāraṇe //]** ≈ ŠV śunyavāda 252
5 avayavāgrahe tadagrahād] ~ NS 4.2.9
12 senāvanavad ... 13 aṇūnām] = NS 2.1.36
22 sarvāgrahaṇam avayavyasiddheḥ] = NS 2.1.34
24 keśasamūhe taimirikopalabdhivat] = NS 4.2.13

yenopalabhyeran. na copalabhyante. tasmād atīndriyatvād adṛṣṭādivan nāsmadādibhiḥ paramāṇavaḥ pratyakṣenopalabhyante. keśās tu timiropahata-cakṣuṣo 'pi nātīndriyāḥ, “keśasamūho 'yam” iti pratīteḥ. na tv evam “paramāṇusamūho 'yam” iti kasyacit pratītir asti.

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+127,7 yadi ca sarvatrāṇusamghāta eva dṛsyate, tadā vṛkṣasamghāta vanapratiptivad anekadhā jātibhedapratipattir na syāt. “samudāyināṁ bhinnākārvatvāt tatsamudāyeṣv anekadhā jātibhedagrahaṇam” iti cet, paṭatantvādīnāṁ tarhi yady anye samudāyināḥ, tataḥ siddham paṭatantvādīnāṁ anyatvam.

127,11 atha: ‘ya eva paṭasya samudāyināḥ, ta eva tantvādīnām’ iti. kathām tarhi jātibhedopalabdhīḥ? na hi senāsamudāye 'pi senāvilakṣaṇopalabdhīr asti. jātipradveṣibhir api tatsthāne vyāvṛttibhedo 'bhyupagataḥ, so 'py avayyanabhyupagame na syāt. na hi keśapuñjebhyas tatsamudāyo vyāvṛttas tantupaṭavat pratibhāti.

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+127,15 “arthakriyābhedānurodhāt pratibhāsabhedāḥ” iti cet, na, tadarśane 'pi pratibhāsabhedadarśanāt. (-127,17) “yogyatādarśanāt” iti cet, kānyā khalu yogyatā jātibhedam muktvā? “abhinnāśrayāsau yogyatā” iti cet, na, tadavayaveṣv api paṭādipratyayaprasāṅgāt. “tasyās trādarśanāt” iti cet, atīndriyā tarhi sā yogyatā, yenāśraye gr̥hyamāṇe 'pi na gr̥hyate. tataś ca na kadācid api paṭādipratyayah syāt.

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+127,20 “samastāvayavais tadarthakriyā sādhyate. tena samastopalabdhāv eva sā yogyatopalabhyate.” iti cet, na, sarvāvayavānāṁ draṣṭum aśakyatvāt. tasmād avayavisadbhāvād eva jātibhedagrahaṇam yuktam. tena vṛkṣatvajātyupalabdhu tadāśrayasamūhe vanasamjñāsamketāt “vanam” iti pratyayo 'py upapadyate. tannimittābhāve hi saṃketo 'pi kartum aśakyāḥ, iti vanapratyayasyāpy abhāvāḥ syād iti.

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127,26 anye tu “nābhinnapratyayah kvacid bhinneṣ artheṣ asti” iti manyamānāḥ “senādipratyayo bahutvasamkhyāviṣayah” ity āhuḥ, “sattāviṣayah” ity apere. na tāvat senādibuddhau bahutvasamkhyā sattādikam vā pratibhāti. “abhinnapratibhāsānyathānupapattyā” cet kalpyate, paṭādipratyayasyāpi tarhi samkhyādir eva viṣayo 'stu. “tasyāvayaviviṣayatve 'pi bādhakābhāvāt” iti cet, sādhakābhāve 'pi kathām tadviṣayatvam? “avayavapratibhāsavilakṣaṇyam eva sādhakam” iti cet, na, samkhyādiviṣayatve 'pi tadvailakṣaṇyopapatteḥ. tasmād yathā paṭādipratyayasya kriyāguṇaviśiṣṭapratyayasāmānā-

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6 ca] P E_Y; om. V **tadā]** P E_Y; tathā V **8 paṭa-**] V E_Y; ghaṭa P **10 tarhi]** P E_Y; om. V **11 senāvi-**] P1 V; senādi P2 E_Y **12 api]** P E_Y; om. V **avayavyanabhy-**] P1 V E_Y; avayavānabhy P2 **13 vyāvṛttas]** V E_Y; vyāvṛttis P(≈) **15 tadarśane]** P E_Y; tadarśane V **21 tena]** P E_Y; na V **eva]** P E_Y; api V **23 -bheda-**] V; śabda P E_Y **-tva-**] P E_Y; om. V **24 -saṃjñāsamketāt]** MSS; saṃjñā saṃketeḥ E_Y **vanam]** c.; rep. MSS E_Y **25 aśakyāḥ]** V; na śakya P1; na śakyata P2; na pāryata E_Y **29 -pratyayo]** V; pratyayo 'pi P E_Y **30 vā]** V(ca) P E_Y; om. V(pc) **31 -syāpi]** V; syāta P1; syāt P2; sya E_Y **32 -yavi-**] MSS; yava E_Y **35 -pratyaya-**] P E_Y; om. V

Complex Omissions, Repetitions, and Transpositions:

1 -labhyeran na copa-] V P2 E_Y; rep. P1

9 anyatvam ... 10 eva^{2]} P E_Y; api samudāya eva paṭasya samudāyinas V

	dhikaraṇyān na saṃkhyādīviṣayatvam, tathā senādipratyayasyāpi.	
+128,8	tathā ca sūtrakṛtā “senāvanavad grahaṇam” iti codyasya “na, senāder apy abhinnatvāt, sainikādibhyo ‘rthāntaratvād vā” iti pratisamādhānam nottam, kiṃ tu “na, atīndriyatvād aṇūnām” ity uktam. “bhinneś abhinnavyava-hāro na bhavati” iti bruvāṇasya sūtravirodho ‘pi syāt, “te vibhaktyantāḥ padam” ity anena hi “bahavo ‘pi varṇā ekāṁ padam” ity uktam.	5
+128,12	yadi ca “puṣpitam chidyate vanam”, “mahatī gacchati senā” ity evam-bhūtasyāpi pratyayasya gunakriyaikārthaśamavāyanimittatvena saṃkhyāviṣayatvam samarthyate, tadā jātipadārthavādy api “śuklo gaur gacchati” ityādi sāmānādhikaraṇyam pratyāsattivišeṣam āśritya samarthayitum śaknoty eva. tataś ca “vyaktyākṛtijātayas tu padārthah” ity apramāṇakam eva syāt. tasmād gunakriyāśraya eva senādibuddhau pratibhāti. abhinnapratibhāsas tu tatra bhrānta eva, dūrād bhedasyāgrahaṇāt “grāme vṛkṣāḥ” iti pratibhāsavat. “paṭādipratyayo ‘py evam” iti cet, na, vicāritatvāt.	10
+128,19	yatra vā rūpādimaty abhinnapratibhāso na bhrāntah, sa evāvayavīti. na ca sarvatraiva bhrāntatvam. bhedagrahaṇena hy abhedapratibhāso bā-dhyate. na ca sarvatrābhinnasyāgrahaṇe bhedagrahaṇam api vāstavam yuktam, bhedasyābhinnānekāśrayatvāt. “paramāṇav abhedagrahaṇam” iti cet, na, atīndriyatvāt. api ca maite paṭādipratyayāḥ paramāṇuvिषayāḥ, mahatpratyayena sāmānādhikaraṇyāt, ākāśādipratyayavat. ato yatrāṇuvyatirikte paṭādipratyayah, so ‘vayavīti.	15 20
	{ § }	
+128,25	“paramāṇudharma evāsāu” ity āhur anye. sa kiṃ rūpādiyuktah, tadra-hito vā? yadi rūpādimān aṇuvyatiriktaḥ, tadā na vivādaḥ kaścit, kāryasya kāraṇadharmatvāvirodhāt. atha: “rūpādirahitaḥ.” tadādhyakṣavirodhah, pratyakṣenāiva rūpādyupetasya paṭāder upalambhāt. sāṃkhyapakṣe ‘pi dharmadharmino abhedābhuyupagamād atīndriyadharmaśya pratyakṣatvam ayuktam. pratyakṣatve hi tadabhinnasya dharmiṇo ‘pi pratyakṣatvaprasaṅgah, tādātmayaviparyayo veti.	25
129,6	«dvau imau ghaṭau samyuktau» iti ca pratītih, na «bahavah paramāṇavas taddharmo vā» iti, tad devakulādipratyayavat.” iti cet, atha manyase: “yatheṣṭakādīnām samyogavišeṣa eva devakulam prākāraś cocyate, atha ca tatra «rūpādimantau devakulaprākārau samyuktau» ity evam pratyayo	30

2 -vana-] V; vanādi P E_Y codyasya] P E_Y; ced ity asya V(vl) senāder] V; senādir P E_Y 6 anena] V; antena na P E_Y bahavo 'pi] em.; bahavo V; vayavo pi P2(ac) P1; avayavo pi P2(pc); avayavā api E_Y 8 saṃkhyā-] MSS; saṃkhyādi E_Y 11 padārthah] P; padārthah VE_Y apramāṇakam] MSS; apramāṇam E_Y 13 vṛkṣāḥ] P E_Y; vṛkṣa V 15 vā] P E_Y; om. V -maty] P E_Y; praty V 18 -syābhinnān-] P E_Y; sya bhi-nnān V 19 ca maite] P; ca naite V; caite E_Y 20 sāmānādhikaraṇyāt] P E_Y; sāmānādhikaraṇatvād V yatrāṇu-] V; yatrāpy aṇu P E_Y 23 tadrahito] P E_Y; vā na V 31 tad] P E_Y; om. V 33 ca tatra] P E_Y; tatra ca V

Intertextual Sources:

5 te ... padam] = NS 2.2.58

11 vyaktyākṛtijātayas ... padārthah] = NS 2.2.66

	bhavati, tathā ghaṭādiṣv api” iti.	
+129,9	na, devakulāder apy avayavitvābhupagamāt. tamo'riṇā tu sāṃkhyābhī- prāyeṇa devakulādipratyayaḥ samyogavisaya uktah, sarvathā bauddhapra- kṣe dr̄ṣṭānto nopapadyata iti jñāpanārtham. na ca sarvavyākhyāt̄matāviro- dhena śāstram vyākhyātum śakyate, sarvaśāstreṣu viruddhābhīprāyavyā- khyāt̄bhedaśambhavāt, anyonyavyākhyāt̄nām doṣapratipādanāt. tasmāt pramāṇavirodha eva yatnena parihartavyaḥ. prākārādeḥ khalu samyogā- tmakatve na kevalam pūrvoktapratyayo na sambhavati, abhinnapratyayo 'pi na syāt, iṣṭakādisamyogānām bahutvād iti.	5
129,17	“nanu ca: samānajātīyānām eva dravyārambhakatvāt katham vijātīyaiḥ kāṣṭheṣṭakādibhir ārabdhasya devakulāder avayavitaṁ pramāṇaviruddham na bhavati?” iti. na, vijātīyānām api śarīrārambhakatvadarśanāt. kathamcit teṣām samānajātīyatve kāṣṭheṣṭakādīnām api sapārthivādirūpeṇa samāna- jātīyatvam astu. kim atra viruddham?	10
+129,21	nanu ca: pārthivādirūpatve 'pi tantuvīraṇādīnām kim iti paṭārambhaka- tvam nāsti? nanu kevalānām api vīraṇānām samānajātīyānām kim iti paṭā- dyanārambhakatvam? “asāmarthyāt” iti cet, “asāmarthyam” eva tarhi vā- cyam, na “vijātīyatvam”. rajjvādyārambhe tu tantuvīraṇādīnām api sāma- rthyam asti. tasmāt samānajātīyānām vijātīyānām vā yatra kārye 'nvayavya- tirekābhyaṁ sāmarthyam avadhāritam, tatkāryārambhakatvam abhyanujñe- yam. nāyam ekāntāgrahaḥ karaṇīyah: “samānajātīyānām evārambhaka- tvam” iti.	15 20
129,27	“nanu: evam pañcānām api bhūtānām ekakāryārambhakatve 'py aviro- dhaḥ syāt.” bhavatu, yadi tathābhūtam kāryam upalabhyate. tatkāryam eva na paśyāmaḥ, iti nābhyanujñāyate. “nanu: śarīram pañcātmakam asti.” na, tasya pañcanimittatvena pañcātmakatvopacārāt, na tu pañcasamavāyi- tvena.	25
+130,3	tathā hi: vyāpakatvād asparśavattvāc cākāśasya tāvad dravyārambhaka- katvam eva nāsti. tatsamavāyikāraṇatve ca śarīrasya vyāpakatvam rūpādi- vihīnatvam ca syāt. vāyujanyatve 'pi sparśaikaguṇatvam. tejojanyatve 'pi gandharasagurutvayogitvam na syāt. udakajanyatve ca gandhavattvam na syāt. viruddharūpādigrahaṇam ca syāt, avayavino 'vayavarūpādyanuvidhā- nāt. ato nānekabhūtajanyatvam śarīrasya, pratyakṣataś ca pārthivāvayavā- nām eva grahaṇāt, kledośmocchvāsādīnām — ghaṭādiṣv iva — samyukta- samavetānām eva grahaṇād iti.	30 35
130,10	evam jhaṣādyārambhe 'pi pārthivānām samavāyikāraṇatvam, itareṣām	

4 -matāvi-] E_y; manāvi P; sabhāvi V **6 -vyākhyāt̄nām]** E_y; vyākhyāt̄ na P; vyā-
khyāne V **8 -tve na]** MSS; tvena E_y 'pi] MSS; om. E_y **10 ca]** P E_y; om. V **13 sa-**
pārthivādi-] V; pārthivatvādi P E_y **14 atra viruddham]** MSS;
atrāviruddham E_y **15 -rūpa-]** P E_y; rūpi V **paṭārambhaka-]** V E_y; paṭādyāram-
bhaka P **16 kevalānām ... vīraṇānām]** P E_y; kevalavīraṇānām api V **19 vijātīyānām]**
V; om. P E_y **21 ekāntāgrahaḥ]** P E_y; ekāntagrahaḥ V **26 -tvena]** V E_y;
tve P **28 -vat-]** P E_y; om. V **29 ca]** MSS; om. E_y **30 -tvam]** P E_y;
tvam syāt V **31 ca]** P E_y; om. V **34 iva]** P E_y; api V **36 -kāraṇa-]** P E_y; kāri V

Complex Omissions, Repetitions, and Transpositions:

16 samānajātīyānām ... 19 tasmāt] P E_y; om. V

	tu nimittatvam iti. yadi tu citrarūpādiyuktam kāryam dṛṣyate, tadā tadavaya- vānāṁ viruddhadharmakāñām apy ekakāryārambhakatvam iṣyata eveti prāg uktam. tad evam kāṣṭheṣṭakādīnāṁ devakulādyārambhe keśāmcit sa- mavāyikāraṇatvam, keśāmcin nimittatvam, sarvesāṁ vā samavāyikāraṇa- tvam yathādarśanam abhyupagantavyam. tat siddham devakulāder apy avayavitvam iti.	5
130,15	grāmādilakṣaṇo 'py avayavī tarhy abhyupagantavyah. "satyam" ity eke. "parasparato'samyuktānāṁ gṛhādīnāṁ grāmādyārambhakatvam ayuktam" ity apare, asaṁyuktasamyogenārambhakatve deśāntarāvasthitāvayavānāṁ apy ārambhakatvaprasaṅgāt. tasmād gṛhādisamudāyeśv eva grāmādivya- vahāro draṣṭavyah. pariṣadādivyavahāro 'py etenaiva vyākhyātah. paramā- ṇusamudāyeśv itthāmbhūto 'pi vyavahārabhedo na saṁbhavatīty uktam prāg eva. tasmād asty avayavīti.	10
	{ § }	
+130,20	yad api "śaṭkena" ityādi paramāṇunirākaraṇārtham uktam, tad apy ayu- ktam, tatkāryopalambhenaiva bādhitatvāt. na hy upādānakāraṇābhāve kā- ryasya sattvam upalabhyate. prasādhitam cāvayavinaḥ sattvam. tasyopādā- nenāvaśyam bhāvyam. yat tasya mūlam upādānam, sa paramāṇuh. tasya sāvayavatvam anupapanam. sāvayavatvē hi mūlatvam eva na syāt.	15
+130,24	atha: "nāsty eva mūlopādānam." tathāpi mūlābhāvāt sarvasyāpy abhā- vah syāt. atha: "avayavaparamparā sāvadhir neṣyate." tathāpy anantāvaya- vatvāvišeṣe trūṭiparvatādeḥ parimāṇagurutvavišeṣo na syāt. tasmād alpata- ratamāder asty avadhiḥ. tasya ca kṣaṇikatvanīṣedhād akṛtakatvam si- ddham. na hi nirupādānasya tulyādhikaparimāṇopādānād vā kasyacid utpa- ttir asti.	20
+131,3	"paramāṇoh ṣaḍamśatā" iti svavacanavirodhād ayuktam, "mātā me va- ndhyā" iti yathā. yato hy aṇutaram nāsti, sa paramāṇur ucyate. tasya kutah ṣaḍamśatā? tadaṁśasyaivāṇutaratvāt. amśavataḥ khalūpacāreṇa paramā- ṇutvam, mukhyas tu niramśa eva paramāṇur iti.	25
+131,6	"ṣaṇṇāṁ ekadeśatve piṇḍah syād anumātrakah" ity etad apy ayuktam, yato 'vayavaparimāṇād avayavinaḥ parimāṇatiśayo dṛṣyate. tataḥ paramā- ṇvārabdhasyāpy adhikaparimāṇatvam anumīyate, tatparimāṇāc ca tatkā-	30

1 iti] P E_Y; om. V 2 -kāñām] MSS; kāraṇānām E_Y 7 abhy-] P E_Y; om. V 8 -pa-
rato'sam-] V; paramo sam P2(ac) P1; paramasam P2(pc) E_Y 9 asaṁyukta-] em.; samyu-
kta MSS E_Y -sthitāva-] MSS; (sthīāva) E_Y 10 -prasāṅgāt] P E_Y;
prasāṅgah V 11 etenaiva] P E_Y; anenaiva V 12 'pi] P E_Y; om. V 16 -lambhenaiva]
P E_Y; lambhena V 18 tasya²] MSS; asya E_Y 19 hi] P E_Y; pi V 22 -śeṣe] P E_Y; sé-
ṣat V trūṭi-] P1 V E_Y; tuṭi P2 parimāṇa-] P E_Y; parimāṇādhikatva V 23 ca] MSS;
om. E_Y 30 -tve] em.; tva V; tve 'pi P E_Y 31 tataḥ] MSS E_Y; atah V(vl)

Complex Omissions, Repetitions, and Transpositions:

26 ṣaḍamśatā ... svavacanavirodhād] P E_Y; rep. and tr. V (see note on ṣaḍamśatā be-
low)

28 ṣaḍamśatā] P E_Y; ṣaḍamśateti svavacanavirodhā ṣaḍamśatā V

31 -te tataḥ paramāṇvārabdha-] P E_Y; tr. V (see note on syādhika below)

	ryasyādhikaparimāṇatvam. iti katham aṇumātra eva piṇḍah syāt? iti.	
131,11	yac coktam, “dikpravibhāgena daśāṁśatā” iti, tad apy ayuktam, yato 'nyasmīn avadhibhūte 'nyāny eva dravyāṇi digbhiḥ pravibhajyante, yathā prayāgād uttareṇa sthito himālayo, dakṣiṇēna vindhya ityādi.	
131,14	“nanu ca: avadhibhūtasyāpi pravibhāgo dṛsyate, yathā: «asyāyaṁ pūrvo bhāgaḥ, ayām paścimāḥ, ayām daksīṇāḥ, ayām cottarāḥ» iti. na, tatrāpy avayavāntarāvadhītvenāvayavāntarāṇāṁ pravibhāgopapatteḥ. niravayavaś ca paramāṇuh, ato na tasya pūrvādvibhāgavikalpaḥ.	5
131,17	atha: “dravyāntarebhyo 'vadhibhūtēbhyaḥ sa eva paramāṇuh pūrvo daksīṇāḥ paścima uttarāś ca” iti vikalpyate. tadā na kaścid virodhaḥ, upādhibhedenābhinnē 'pi vastuni vyapadeśabhedadarśanād iti.	10
132,2	“ākāśavyatibhedāt” ity api na yuktam, nityaniravayavasyāśakyabheda-tvāt. atha: “yady antas tasyākāśam nāsti, tato 'sarvagatam ākāśam prāpnōti” iti. na, sarvagatasvarūpāparijñānāt. tathā hi: yasyābhinnātmānah sarvamūrtimadbhiḥ saṁbandhaḥ, tad dravyām “sarvagatam” ucyate, asti cākāśasyaitad rūpam sarvatra śabdotpādānumitam. tasmāt tad api sarvagatam eva.	15
+132,6	“paramāṇumadhyenāsaṁbandhād asarvagatam” iti cet, na, tasya śāśa-viṣāṇavad atyantābhāvāt. na hi niramśasyaikasya bāhyābhyanṭarabhaḥvo 'sti. yac cāsti mūrtam, tena sarveṇa samyujyate, iti katham asarvagatam? tasmād akṛtabuddhivyāmohanamātram etad apīti.	20
+132,9	evam cāvayavyādisadbhāvāt “grāhyagrāhakavaidhuryāt” ity asiddho hetuh.	

{ §4.1 }

	yad apy uktam, “sahopalambhāniyamād abhedo 'rthatadbuddhyoh, dvicandrādidaśanavat” iti, tatrāṇaikāntikatvam tāvad asya hetoh. tathā hi: kṛttikānām sahopalambhāniyamo 'sti, na cābhedaḥ, tadbhedasya sarvāvisam-vādena prasiddhatvāt. yathā ca vicārayataḥ kṛttikānām vivekenopalambhaḥ, tathā jñānārthayor apīti.	
+132,14	viruddhaś cāyām hetuh, “saha”-śabdārthasya bhede saty eva saṁbha-vāt. na hy ekasmīn eva “saha”-arthāḥ kaścid asti. “bhrāntāpekṣayā «saha»-artho 'sti” iti cet, atha manuṣe: “bhrānter abhinnam api bhedenā-	30

2 -pra-] MSS; om. E_Y **5 yathā asyāyaṁ pūrvo bhāgaḥ]** P E_Y; yathā pūrvo V **6 cottarāḥ]** P E_Y; uttaro yam V **8 -vi-]** V; bhādi P; digvi E_Y **9 eva]** V; om. P E_Y **11 vastuni]** V E_Y; avastuni P **12 api]** P E_Y; om. V **nitya-]** P1 V E_Y; nityam P2 **-bhedatvāt]** MSS; bhedāt E_Y **13 prāpnōti iti]** P E_Y; prāpnōti V **18 asarva-]** P E_Y; na sarva V **19 bāhyābhyanṭara-]** MSS; bāhyāntara E_Y **21 etad]** P E_Y; tad V(≈) **22 -sadbhāvāt]** P E_Y; sa-mbhavād V **26 -niyamād]** P E_Y; nimittād V **-tad-]** P E_Y; bheda V **29 yathā]** V; ta-thā P E_Y **32 saha-]** P E_Y; sahita V **bhrāntāpekṣayā]** MSS; bhrāntyapekṣayā E_Y **33 -artho]** P E_Y; om. V **bhrānter abhinnam]** V; bhrāntaiva bhi-nnam P; bhrāntyāiva abhinnam E_Y

Complex Omissions, Repetitions, and Transpositions:

1 -syādhika-] P E_Y; syādhikatvam dṛsyate atah paramāṇvārabdhakasyāpy adhika V
(see tr. in note on te tataḥ paramāṇvārabdha above)

	dhyavasīyate, tadapekṣayā «sahopalambhaḥ» ity ucyate, dvicandropala- mbhavat. vastusthityā tv ekasyaivopalambhaḥ” iti.	
+132,18	na, tatra bhinnākārasyāropitasyāvabhāsanāt, tena cāropitākāreṇa va- stubbūtasyākārasyābhedaśādhanam na yuktam. na hi pītākāreṇa śāṅkhā- rūpasyābhedaḥ sambhavati. tathā hi: bhinnākāratā tatra vidyamānā vā pra- tibhāty avidyamānā vety ubhayathāpy abhedasādhanavirodhah. paramā- rthato hi bhinnākāratā yayoh, taylor abhedaḥ kutah? apāramārthikī ced bhi- nnākāratā, tasyāḥ paramārthena sahābhedaḥ katham?	5
+133,3	“bhinnākāratvenopalabhyamānayor evābhedaḥ sādhyate, na tu bhinnā- kāratāyāḥ, tasyās tuccharūpatvāt” iti cet, tathāpy anaikāntiko hetuh, yato 'rthāntarabhūtāpi bhinnākāratā bodhākāreṇa sahaivopalabhyate. tadana- rthāntaratve vā tadātmabhūtasya bodhākārasyāpi tucchātmakatvaprasaṅga iti.	10
+133,7	“ekenaivopalambhāt” ity ayam api hetvartho 'siddhatvād ayuktaḥ, artha- syānekapurushair upalabhyamānatvāt iti.	15
133,9	yo 'py āha “«sahopalambhaniyamāt» ity asyāyam arthaḥ: «ekasyaivo- palambhāt»” iti, tenāpi vaktavyam kiṁ jñānasyaivopalambhāt, utārthasyai- veti. yadi jñānasyaivopalambhāt, tadā tasyānupalabhyamānenārthena saha katham abhedaḥ? trailokyenāpy abhedaprasaṅgāt. tadātmanaiva tasyābheda- sādhane vyartho hetuh, tatra vivādābhāvāt. etena “arthasyaivopalam- bhāt” iti pratyuktam. asiddhatvam ca, jñānasyārthasya copalambhād iti.	20
+133,14	atha: “arthopalambhakāle jñānam nopalabhyate, jñānopalambhakāle ca nārthaḥ. tenaikasyaivopalambhaḥ sidhyati.” tathāpi svasiddhāntavirodhah parapakṣābhuyupagamaś ca prasajyeta.	
133,17	atha: “jñānārthayor eka evopalambhaḥ, tata ekopalambhān na bheda- vyavasthitih.” sa tarhi tayoḥ kiṁ bhedagrāhī vā, na vā? yadi na bhedagrāhī, tadā katham “jñānārthayoh” ity ucyate? bhedagrāhī cet, katham tato na bhedavyastheti? “dvicandrādijñānavat” iti cet, na, tatrāropitākāreṇābheda- nupapattir ity uktatvāt.	25
	{ § }	30

5 tatra vidyamānā vā] P E_Y; vidyamānā tatra V **6 vety]** V E_Y; cety P **8 -tā]** P E_Y; tā-
yās V(≈) **9 bhinnākāra-**] MSS; (bhinnākāra) E_Y **na tu]** V; nanu P E_Y **11 sahaivopa-**] P E_Y; sahopa V **14 ekenaivopa-**] P E_Y; anekenaivopa V(≈) **17 -syaiveti]** P E_Y;
syeti V **20 etena arthasyai-**] P E_Y; etenaivārtha V **21 ca]** MSS E_Y; tu V(vl) **copa-**] MSS E_Y; vopa V(vl) **22 ca]** V; vā P E_Y **23 nārthaḥ]** P E_Y; nārtha iti V **-syaivopa-**] MSS; syopa E_Y **tathāpi]** P E_Y; tathātve V **24 prasajyeta]** P E_Y;
prasajyete V **26 kiṁ]** P E_Y; om. V **27 tadā]** V; tabhedā P; tadabhedāt E_Y **bheda-**
grāhī] P E_Y; bhedagrāhīti V **28 tatrārop-**] P E_Y; tatrāpy ārop V **29 -pattir]** V; pa-
tter P E_Y

Complex Omissions, Repetitions, and Transpositions:

20 -vopalambhāt iti pratyuktam asiddhatvam ca jñānasyārthasya] P E_Y; rep.V(≈)
(see note on copalambhād iti below)

21 copalambhād iti] P E_Y; copalambhātmasiddhatvam tu jñānasyārthasya vā V

Glosses and Comments:

10 tuccharūpatvāt] avasturūpatvāt V

+133,21	kutaś ca jñānārthayor eka evopalambhaḥ sidhyati? “nanūktam: «apratyakṣopalambhasya nārthadrṣṭih prasidhyati»” iti. keyam arthadrṣṭeh prasiddhiḥ? kim utpattiḥ, āhosvid upalabdhīḥ? kaś copalambho 'pi yasyāpratyakṣatve saty arthadrṣṭir na prasidhyati? kim saivārthadrṣṭih, uta tajjanakam jñānam iti?	5
+134,3	tad yadi “saivārthadrṣṭir upalambhaḥ, tasyāpratyakṣatve saty utpattir na sambhavati” iti, tad ayuktam. utpāde hi sati paścād arthadrṣṭeh pratyakṣatvam yuktam, na pūrvam eva. na hi pratyakṣeṇa dṛṣṭasya paścād utpattir ity ayam kramah kvacid upalabhyate.	
+134,6	atha: “arthadrṣṭijanakam jñānam upalambhaḥ, tasyāpratyakṣatve 'rtha-drṣṭir notpadyate” iti. tad ayuktam, cakṣurādivad apratyakṣasyāpy utpāda-katvasamḥavāt, tīvrasparśādinā suṣuptaprabodhe pūrvajñānāsamvedanāc ca. na cārthadrṣṭeh pratyakṣopalambhajanyatve 'py arthajñānayor ekopala-mbhaniyamah sidhyati.	10
+134,9	atha: “arthadrṣṭeh prasiddhir upalabdhīḥ.” tathāpy ayam vākyārtho bhavati: “apratyakṣopalambhasya nārthopalambhaḥ pratyakṣah” iti, na cānena kiṃcit sādhitam bhavati.	15
+134,11	atha: “«dṛṣyate» iti dṛṣṭir artha eva, tataś ca «apratyakṣārthopalambha-syārtho 'pi pratyakṣo na bhavati» ity ayam vākyārthah.” na, upalambhād arthāntarvatvāt. na caikasyāpratyakṣatve tadanyasyāpratyakṣatvam nyāyyam, atiprasaṅgāt.	20
+135,2	atha: “upalambhasyāpratyakṣatve sati «artho dṛṣṭah» ity evam pratītir na bhavati.” etad asmākam apy abhimatam: nāgrhītam višeṣanam viśiṣṭa-pratītau nimittam iti. na ca sarvatra darśanaviśiṣṭa evārtho grhyate. “śuklo gacchati gauḥ” iti nātra godarśanam anubhūyate, api tu guṇakriyāviśiṣṭo gaur evopalabhyate.	25
	{ § }	
135,6	“nanv atroktam: «na hi viśayasattayā viśayopalambhaḥ, kiṃ tarhi tadu-palambhasattayā»” iti. tataḥ kiṃ? “nanūktam: «sā cāpramāṇikā na sattāni-bandhanān vyavahārān anuruṇaddhi»” iti. ko 'sya vākyasyārthah? kim apratītāyāḥ sattāyā vyavahāramātrapravartakatvam api nāsti, uta svaviśiṣṭavya-vahārapravartakatvam nāstīti?	30
+135,9	na tāvad ādyah pakṣah, apratītāyā api cakṣurādisattāto rūpādau jñānā-	

2 keyam] V E_Y; katham P 3 'pi yasyāpraty-] V; vidhasyārthapraty P; 'pi yasyārtha-praty E_Y 4 prasidhyati] P E_Y; prasidhyatīti V saivārtha-] P E_Y; evārtha V 7 tad] P E_Y; tad apy V 8 dṛṣṭasya] MSS; om. E_Y 11 not-] MSS; (nomt) E_Y tad] P E_Y; etad V utpādaka-] MSS; (utpādajaka) E_Y 13 na cārtha-] P E_Y; nārtha V 16 cānena] V; vānena P; vā tena E_Y 18 -akṣārthopa-] MSS; akṣopa E_Y 22 -pratyakṣa-] V E_Y; pratyaya P2; pratyava P1 23 bhavati] P E_Y; bhavatīty V 25 go-] V; godajñānam P; gojñānam E_Y 29 cāpramāṇikā] V; cāprāmāṇikā P; cāprāmāṇikī E_Y -nibandhanān] P E_Y; nibandhanād V 31 -mātra-] MSS; mātram E_Y

Complex Omissions, Repetitions, and Transpositions:

4 uta tajjanakam jñānam iti tad yadi saivārthadrṣṭir] P E_Y; om. V

	bhidhānānayanādivyavahārāṇām pravṛttidarśanāt. “tadapratītau «tato 'mī vyavahārāḥ pravṛttāḥ» iti kuto 'vagamah?” iti cet, tadvyavahāradarśanād eva, aṅkuraduhkhādidarśanād bījādharmādiniścayavat.	
+135,13	atha: “apratītasattvasya tadviśiṣṭavyavahārapravartakatvam na saṃbhavati” iti. nātra vivādah. kim tu sarvatra tadviśiṣṭavyavahārānupalambhān nāvaśyam arthopalambhasyopalambha iti.	5
+135,15	“tadaprasiddhau viśayasyāpy aprasiddhiḥ” iti cet, kim atra kāraṇam? na hi tadupalambhāḥ svavisayam liṅgavat sādhayati, yena tadaprasiddhau viśayasyāpy aprasiddhiḥ syāt. kim tarhi tadgrīhitayotpādamātreṇa tam viśayaṁ vyavahārayogyam karoti. iti tadaprasiddhāḥ api viśayah prasiddha evety ucyate.	10
+135,18	tadupalambhasyāpy uttarakālaṁ pratyakṣato vānumānato vādhigama iṣyate. na caivam anīṣṭhā, sarvasyopalambhasya vedanānabhyupagamāt. ya evopalambhāḥ saṃvedyate, tasya saṃvedanām jñānāntaram ucyate. na punar “avidito nāsty evopalambhāḥ, svakāryam vā na karoti” iti. etāvat tu yuktam: yāvan na vedyate, tāvat “asti” iti vyavahartum na śakyate, dahanādivad iti. na cāvidite dahanādau tatkāryasya dhūmādeḥ anutpattir apratipattir veti.	15
+135,23	tad evam agnyādivad asaṃviditād evopalambhāt tannimittasya viśaya-smaraṇābhidhānānayanādilakṣaṇasya kāryasya saṃbhavān na taduparodhena svasaṃvedanam abhyupagantavyam.	20
	{ § }	
135,26	“yadi na svasaṃviditam jñānam, aprakāśātmakam tarhi prāptam, svayam aprakāśātmakam ca ghaṭādivad anyasyāpi katham prakāśakam bhavet?” iti. (-136,1) kim idam “aprakāśātmakatvam” nāma? kim bodhājanakatvam, utāprabhatvam, āhosvid abodhasvabhāvatvam iti?	25
+136,2	bodhājanakatvam tāvad ayuktam, cakṣurāder asvasaṃviditasyāpi bodhājanakatvāt. atha: “aprabhatvam.” tatas tejovilikṣaṇatvād evāprabhatvam abhāsvararūpatvam, nāsvasaṃviditatvād iti. atha: “abodhasvabhāvatvam” prasajyate. na, aviditasyāpi svarūpātīgāt. na hi yo yasya svabhāvah, satasyāsvasaṃvedanād eva nivartata iti.	30
136,7	“svasaṃvedanābhāve ko 'nyo bodhasya svabhāvah?” iti cet, bodhatvam eva bodhasya svabhāvah. “tad eva svasaṃvedanam” iti cet, na, saṃjñāntaramātreṇa svātmāvabhāsakatvāsiddheḥ. “svātmāvabodhakatvābhāve	

1 -dhānānayanādi-] MSS; dhānām nayanādi E_Y -vyavahārāṇām] P E_Y; rūpāṇām vyavahāra V 3 bījādharmādi-] em.; bījadharmaḥ V; bījādharmaḥ P E_Y 7 -syāpy apra-] MSS; syāpra E_Y 9 -pāda-] MSS; pādana E_Y viśayaṁ] V; viśaya P E_Y 10 iti] MSS; om. E_Y 12 vānu-] P E_Y; nu V 13 anīṣṭhā] MSS; anīṣṭāpattiḥ E_Y 15 nāsty] P1 V E_Y; sty P2 iti] P E_Y; om. V 18 veti] P E_Y; ceti V 20 -nayanādi-] P E_Y; nayana V 24 bhavet] P E_Y; tāvad V 26 iti] P E_Y; iti na V 29 nāsva-] MSS; na sva E_Y abodha-] P E_Y; bodha V 30 prasajyate] P E_Y; prasajyeta V 31 nivartata] V; nivarttayata P E_Y 33 eva²] V E_Y; evava P1; eva ca P2 svasaṃ-] P E_Y; sva V 34 svātmāva-1] P E_Y; svāva V -bodhaka-] P E_Y; bodha V

Glosses and Comments:

1 tadapratītau] (*interpolated*) cakṣurādisattā apratītā iti cakṣurādisattātās V (≈)

katham asau bodhasvabhāvah?" iti cet, svātmadāhakatvābhāve 'pi yathāgnir dahanasvabhāvah, svātmadāyakatvādyabhāve 'pi yathā dātrādikam dātrādisvabhāvam iti.

{ § }

- 136,13 "nanu ca: «dr̄ṣṭam mayā» iti sarvatra darśanaviśiṣṭasyaivārthasya smaranāt katham nānubhavārthayor ekopalambhaniyamah?" iti. naitad asti, kevalasyāpy arthasya smṛtidarśanāt. tathā hi: "mātarāmpitaram śuśrūṣitavān aham," "santi me pañca bhṛtyā daśa gāvaś ca," "grhe 'sti devadattah" ityādāv artha eva smaryate, nānubhava iti. 5
- 136,17 "nanu: anubhavo 'py atra smaryate, yasmād asau pr̄ṣṭah sann āha: «mayaiva dr̄ṣṭo devadattah»" iti. na, anyathāpi tadupapatteḥ: kevalasyāpy arthasya smaranāt tasya dr̄ṣṭatvam anumāya tathābhidhutta iti. 10
- +136,19 yadi punar evam nābhypagamyate, tadā cakṣurāder api sahopalambhaniyamah syāt. tathā hi: "katham tvayāsau jñātaḥ?" ity evam pr̄ṣṭah sann āha: "cakṣuṣaiva dr̄ṣṭah" iti. "bhavatu tasyāpi sahopalambhaniyamah" iti cet, na, pratītisvaśāstravirodhāt. na hi tāvan nīlādyarthagrāhiṇi jñāne cakṣurādipratītiḥ kasyacid asti. nāpi cakṣurādyākārah svaśāstre 'bhyupagata iti. 15
- +136,23 kim cābhilāpasamsargasyāpi sahopalambhaniyamaprasaṅgah, tatsamsṛṣṭasyaiva smaranāt. na hi suśikṣito 'pi kaścic chuddham artham smaranenopasthāpayitum śaknoti, pr̄ṣṭo vānyeśām kathayitum iti. abhilāpasamsṛṣṭasya cānubhave "kalpanāpoḍham" ityādivirodhah śabdādvaitavādaprasaṅgaś ca. tasmān na smaranād api sahopalambhaniyamasiddhiḥ. 20

{ § }

- 137,4 "svasamvedanābhāve jñānasya rūpādivad bāhyatvam prasajyate, svātmīyābhāvaś ca, saṃtānāntarajñānavat." iti cet, kim idam tāvad bāhyatvam? yadi svaśārīrād bahirdeśāvasthānam, tad ayuktam, yato na rūpāder apy asvasamvedanatvād bāhyatvam, kim tu svasāmagrīsāmarthyāt tatro- 25

1 yathāgnir] MSS; yathāgnier E_Y **2 -dāyaka-**] MSS; dīpaka E_Y **5 sarvatra]** V; sarva P E_Y **7 śuśrūṣitavān]** P E_Y; susmūrṣitavān V **8 me pañca]** E_Y; meśāś ca P; ca pañca V **10 atra]** P E_Y; om. V **11 mayaiva]** MSS; (mathaiva) E_Y **dr̄ṣṭo]** P E_Y; dr̄ṣṭan V **-thāpi]** P E_Y; thā V **12 -sya]** MSS; om. E_Y **14 tvayāsau jñātaḥ]** P E_Y; tvayā dr̄ṣṭam jñātam V **15 tasyāpi]** MSS; tathāpi E_Y **16 jñāne]** V E_Y; vijñāne P **19 cābhi-]** V; vābhi P E_Y **21 vānyeśām]** P1 V E_Y; cānyeśām P2 **22 -sya cānu-]** P E_Y; syaivānu V **25 rūpādi-]** P E_Y; svarūpādi V **svātmīyābhāvaś]** P E_Y; svātmīyatvābhāvaś V **26 tāvad]** P E_Y; tad V **28 apy]** P E_Y; om. V **asva-]** P E_Y; sva V

Complex Omissions, Repetitions, and Transpositions:

16 iti ... pratītisvaśāstravirodhāt] P E_Y; rep. and tr. V (see note on siddhiḥ below)

23 sahopalambhaniyamasiddhiḥ] P E_Y; iti cen na pratītisvaśāstrasiddhiḥ V

Glosses and Comments:

2 -dāyaka-] dāyako la..kah V

Intertextual Sources:

7 mātarāmpitaram ... 8 bhṛtyā] = TUS 150,14–15 (1987)

22 kalpanāpoḍham] @ PS 1.3

	tpannatvāt. jñānasukhādes tu śarīrāntardeśa evotpādikā sāmagrī vidyate, tato na bahir utpādaḥ. etena bahiṣṭhatvena samvedanabāhyatvam apāstam.	
137,10	nāpi jñānavargād arthāntaratvam bāhyatvam, tajjātīyasya tadvargād arthāntaratvāyogaḥ. sukhādes tu jñānavargād arthāntaratvam bāhyatvam iṣṭam eva. tathāpi svasāmagrīśāmarthyāc charīrāntardeśa evotpannam vedyate, iti “bāhyam” nocyate.	5
+137,12	yad vā: ātmasamavāyitvād abāhyatvam, tatsamavāyitvam ca svahetuniyamitativāt, na tu svasaṁviditativāt. iti (-137,15) yad api “anātmīyatvaprasāṅgaḥ, saṁtānāntarajñānavat” ity uktam, tad apy anupapanam, yato na svasaṁvedanāsvasaṁvedanābhyaṁ ātmīyatvānātmīyatve, kiṁ tarhi svātmasaṁbandhāsaṁbandhābhyaṁ.	10
+137,17	tvanmate tu sarvajñānānām svasaṁvedyatvān na kiṁcid anātmīyam jñānam syāt. atha: “yad yasya svasaṁvedyam na bhavati, tat tasyānātmīyam.” evam tarhi pūrvottarajñānam janmāntaropārjitādṛṣṭam cātmīyam na syāt. na hi sarvajñānānuyāyī saṁvedakah saṁtāno 'py asti, yasya tat svārvam svātmīyam syāt.	15
137,21	atha: “upakāryopakārakabhāvenāsvasaṁviditam api «ātmīyam» ucyate.” hanta, tarhi na vaktavyam “saṁtānāntarajñānavad asvasaṁviditavād anātmīyam” iti.	20
	{ § }	
137,24	yad apy anyad uktam, “svātmaprakāśakam jñānam, prakāśakatvāt, pradīpavat” iti, atrāpi “svātmaprakāśakam” iti ko 'rthaḥ? yadi svasaṁvedyatvam eva vivakṣitam, tadā sādhyaśūnyam nidarśanam. na hi bhavanmate 'pi rūpātmakasya pradīpasya svasaṁvedyatvam asti. jñānātmakatvam ca pradīpasyobhayavādyasiddhatvān nodāharaṇam yuktam.	25
+138,3	atha: “svātmavedanam prati sajātīyānapekṣam «svātmaprakāśakam» ucyate.” tadā sparśāder api svātmaprakāśakatvam syāt. na ca svātmani saṁvedanotpādane sajātīyam sahakāri nāpekṣata ity etāvataiva svasaṁvedyatvasiddhiḥ. prakāśasyāpi sajātīyānapekṣatvam asiddham, tada vayavāvayavirūpayor anyonyasahakāritvāt, nayanarūpāpekṣitvāc ca. iti kuta etat prakāśyamānasya tadarthāntareṇa, prakāśanād ghaṭādivat? iti.	30

1 -deśa] MSS; (demśa) E_Y sāmagrī] P E_Y; svasāmagrī V 2 saṁvedana-] em.; samvedanam P E_Y; svasaṁvedana V 8 ca] P E_Y; om. V sva-] P1 V E_Y; sa P2 11 -ātmīya-] MSS; (āmīya) E_Y 13 -vedya-] MSS; vedana E_Y 14 -vedyam] V; vedyatvam P; vedakam E_Y 16 saṁvedakah] c.; svasaṁvedakah MSS E_Y tat] MSS; sat E_Y 18 -kāraka-] E_Y; kāra P; kārakā V 19 tarhi na] P E_Y; tr. V -sva-] P E_Y; om. V 22 yad] P E_Y; yady V prakāśaka-] V; prakāśa P E_Y 24 bhavan-] P E_Y; bauddha V rūpātmā-] V; svarūpātmā P E_Y 26 -yavādy-] V; yor P E_Y -asiddhatvān] P E_Y; asiddham V 27 atha svātma-] V; athāsvātma P E_Y -apekṣam] V; apekṣam P E_Y -kam] V; katvam P E_Y 28 api] P E_Y; om. V svātmani] P; svātma E_Y; svātmani sva V 29 -kāri nāpekṣata] V; kāriṇāpekṣate P; kāriṇam apekṣata E_Y 30 prakāśa-] MSS; prakāśaka E_Y 31 -rūpāpekṣi-] P E_Y; rūpāpekṣa V 32 -kāśya-] P1 V E_Y; kāśa P2 ghaṭādi-] E_Y; paṭādi MSS

138,9	yat punar atroktam, “na ca ghaṭo 'pi pradīpena prakāsyate, api tu tathā bhūtasyaiva tata utpattiḥ” iti, tan na, kṣaṇabhaṅgasya nirākariṣyamāṇatvāt. tathotpāde 'py anyatas tathotpatteḥ pūrvam ghaṭasya siddham aprakāśātmakatvam, taddṛṣṭāntāt pradīpasya jñānasya ca. iti katham “asamvedyam jñānam nāsti” ity ucyate? nanu ca yathā cakṣuṣi svāvayavarūpe ca saty api ghaṭah pradīpam prakāśakam apekṣate, tathā dīpo 'py anyam apekṣeta. ghaṭo 'pi vā pradīpavac cakṣurādīvyatirekeṇa nānyam prakāśakam apekṣeta.	5
+138,15	« atha: “ghaṭasya dvayam prakāśakam, pradīpaś cakṣuś ca. pradīpasya tu cakṣur eva” iti. evam tarhi:	10
	ekam kasyacid anyasya dvayam eva prakāśakam / yathāsaṁbhavato 'nyasya naikam apy astu kā kṣatih //	
	(-139,1) atyantam aśaktasya dvayam, aparasyaikam, anyasya naikam apīti vastusvabhāva eşah. iti kaivātra kṣatih? (-139,3) atha: “svātmani kriyāvirodhah” ity ucyate. tad ayuktam, ity āha:	15
	“yadā svarūpam tat tasya tadā kaiva virodhitā / svarūpeṇa virodhe hi sarvam eva pralīyate //” » iti.	
139,6	yat tāvat “ekam kasyacit” ityādi, tad ayuktam. yadi nāma kvacid ekam sahakāri samartham, kvacid anekam, tathāpy ākasmikī kriyā na yuktā. tathā hi:	20
	“nityam sattvam asattvam vāhetor anyānapekṣanāt / apekṣāto hi bhāvānām kādācitkatvasambhavaḥ //”	
	iti bādhakam bhavata eva syāt. (-139,10) na ca samastaḥakārīvikalasya vṛkṣāśmādeḥ svātmacalanādikriyāyām sāmarthyam dr̄ṣṭam. sahakārisam-khyāvikalpas tv anvayavyatirekābhyaṁ dr̄ṣṭo 'bhyupagamyate.	25

2 tata] V; ta P; om. E_Y **tan]** MSS; om. E_Y **3 tathotpāde]** P E_Y; tasyotpāde V **ghaṭa-**] V E_Y; paṭa P **4 pradīpasya jñānasya]** P E_Y; tr. V **asamvedyam]** P E_Y; asvasaṁve-
dyam V **5 svāvayava-**] V; svāvayave P E_Y **6 'py ... apekṣeta]** V; napekṣeta P;
'pi syāt atha dīpo nāpekṣate E_Y **7 vā pradīpavac]** V; avādī evac P;
evam syāt evam E_Y **prakāśakam]** P E_Y; prakāśam V **9 prakāśakam]** P1 V E_Y; prakā-
śaka P2 **12 'nyasya naikam]** P E_Y; nyasyānekam V **13 anyasya naikam]** P E_Y; anya-
syānekam V **14 iti]** P E_Y; om. V **17 iti]** MSS; om. E_Y **19 -kāri sam-]** P; kārisam E_Y;
kārasam V **tathāpy]** P E_Y; tadāpy V **21 vāhetor]** (MSS); vā hetor E_Y **22 -bhavaḥ //**] MSS;
bhavāt E_Y **23 -sahakāri-]** P E_Y; sahakārisaṅkhyā V **24 vṛkṣāśmādeḥ]** P E_Y;
vṛkṣāśmādeḥ V **25 -bhyām]** MSS; (myām) E_Y

Complex Omissions, Repetitions, and Transpositions:

23 iti bādhakam bhavata eva syāt? MSS; om. E_Y

Intertextual Sources:

1 na ... 2 utpattiḥ] = PVA 353,21–22

5 cakṣuṣi ... 6 'py] ~ PVA 353,25

9 atha ... 17 pralīyate //] ≈ PVA 353,29–34

21 nityam ... 22 -bhavaḥ //] = PV 1.35 (PVSV 22,19–20); = PVin 2.58

nityam ... -apekṣanāt //] = PV 2.179cd, = PVA 643,19

+139,12	“yadā svarūpam tat tasya” ityādy apy ayuktam, tathāsvarūpasyaivāsi-ddhatvāt. na hi dṛṣṭāntahetvor anupapattau svātmasaṁvedakatvam si-dhyati.	
+139,13	“prakāśakatvāt” ity asyāpi ko 'rthaḥ? kim bhāsvararūpatvāt, uta vedyasahakāritvāt, āhosvid bodhasvabhāvatvād iti? bhāsvararūpatvam bodha-syāsiddham. vedyasahakāritvam tu cakṣurādibhir anaikāntikam. bodhasvabhāvatvam punar asādhāraṇam eva. (-139,17)na cānirūpitārthasya hetor gamakatvam yuktam. śabdasāmyād abhedinas tu svayam eva śākyair anumitisādhakatvam nirākṛtam iti.	5
139,20	“jñānāntaravedyavte 'pi jñānasya kim pramāṇam?” iti cet, yad evācāryair uktam: “jñānam svavyatirkavedanavedyam, vedyatvāt, rūpādīvat” iti. “tadvad bāhyatvābodhatvādiprasaṅgah” ity ayuktam, viśeṣaviruddhasyādūṣaṇatvena vakṣyamāṇatvāt. anaikāntikatvaparihārārtham parameśvarasya jñānadvyayam abhyupagantavyam, tadvyatirekeṇa vāsarvajñatvam. “anityavte sati” iti vā hetuviśeṣaṇam kartavyam iti.	10 15
	{ § }	
+139,24	tad evam svasaṁvedanasyāsiddheḥ sahopalambhaniyamo 'py asi-ddhaḥ, iti na jñānārthayor abhedaśiddhir iti. (-139,26) tataś caitad apy ayuktam:	
	“nīlādirūpas tasyāsau svabhāvo 'nubhavaś ca saḥ / nīlādyanubhavaḥ khyātaḥ svabhāvānubhavo 'pi san //” iti.	20
140,1	api cāyam sahopalambhaniyamaḥ kim anvayavyatirekopapannaḥ, atha tadvikala iti? na tāvad anvayavyatirekavikalasya gamakatvam, atiprasaṅgāt. anvayavyatirekopapannatvam ca bhedāgraḥaṇe katham pratīyate? na hi svātmany eva kaścid anvayavyatirekau pratipattum śaknoti. na ca bhrāntenaiva bhedopalambhena vyatirekādvyavasthā yuktā, atiprasaṅgāt. na ca sarvathaiva bhedāpratipattau bhrāntyabhrāntivyavasthāpi ghaṭate, vāñmā-treṇa ca sarvavādaśiddhiḥ syāt.	25
140,7	atha: “jñānārthayor eva bhedo na grhyate, na tu jñānayor api” iti. tad ayuktam, yataḥ svasaṁvedanapakṣe jñānayor api bhedaḥ pratyetum na śākyata ity uktam citravicāraprastāve.	30

1 tathā-] P E_Y; tadā V -syaivāsiddha-] V E_Y; syaiva cāsiddha P 7 -rūpitārtha-] V; rū-pitād artha P E_Y 9 iti] P E_Y; om. V 10 cet yad] P E_Y; vedyād V evācāryair] V; eva devāryair P E_Y 11 uktam] P1 V E_Y; om. P2 12 ayuktam] MSS; uktam E_Y 14 vāsarva-] (MSS); vā sarva E_Y 15 hetu-] MSS; om. E_Y 18 iti²] V; om. P E_Y 21 iti] MSS; om. E_Y 25 bhrāntenaiva] P1 V E_Y; bhrānteneva P2

Glosses and Comments:

13 anaikāntika- ... 14 -jñatvam] (*interpolated*) kim tu parameśvarajñānasya vedyavte 'pi svavyatirkavedanavedyavtvaṁ nāstīty anaikāntikatvam syāt. tatparihārāya parameśvara-jñānadvyayam abhyupagantavyam. jñānadvyāṅgikāre ca parameśvarajñānasyāpi vedyasya svavyatirkavedanavedyavtvaṁ eva, tataś ca nānaikāntikatvam. jñānavyatirekeṇa vā parameśvarasya sarvajñatvam abhyupagantavyam. jñānam vinā tasya sarvajñatvam anaikāntikatvaparihārārtham abhyupagantavyam. V(≈)

Intertextual Sources:

20 nīlādirūpas ... 21 san //] = PV 3.328; = PVA 353,5–6

+140,9	api ca jñānayoḥ pratyakṣeṇa bhedas tāvan na gr̥hyate, svātmavedana-mātratvāt. na hi parāpratītau svaparayor bhedapratītir yuktā. parapratītya-bhyupagame ca “nānyo ‘nubhāvyah” ityāder vyāghātaprasaṅgah. sahopala-mbhaś cānaikāntikah syāt. na cātadākāreṇa jñānāntarasya grahaṇam yu-ktam, nīlāder apy anīlādyākāreṇaiva jñānena grahaṇaprasaṅgāt. tadākāra-tve ca tad eva syāt. kathām jñānayor api grāhyagrāhakayor bhedasiddhiḥ? siddhau vā tadvat arthajñānayor api syāt. tasmān na pratyakṣeṇa jñānayor eva bhedo gr̥hyate.	5
+140,15	nāpy anumānena, tasya pratyakṣapūrvakatvāt. na hi sarvathā pratyakṣeṇa vyāptyagrahaṇe 'numānam ātmānam āsādayati.	10
+140,16	tad evam grāhyagrāhakayor abhedavādinām svasaṁtāne 'pi jñānānta-grahaṇam nāsti, kutaḥ saṁtānāntarasiddhiḥ? tataś ca paralokabuddhādi-vārtāpi dūrotsāritaiva. ity asamañjasam sarvam eva saugataṁ śāstram iti. na hi bhedāsiddhau sādhanadūṣaṇādīvyavahāra upapadyate.	
140,21	atha matam: “grāhakasya grāhyeṇaiva sahābhedo ‘bhyupagamyate, na tv adhyavaseyena” iti. atha: grāhyādhyavaseyayoḥ ko bhedaḥ? ucyate: “yo buddhau vastutah pratibhāty ākārah, sa grāhyah, yas tv āropitah, so ‘dhyava-seyah. atha vā yad buddhau pratibhāti, tad grāhyam, yasmiṁs tv aprati-bhāte 'pi gr̥hitābhīmānah, tad adhyavaseyam. tadaṁdhavasāyād eva pravṛttiḥ.” tad uktam: “svapratibhāse ‘narthe ‘rthādhavasāyena pravartanād bhrāntir apy arthasaṁbandhena tadavyabhicārāt pramāṇam” iti.	15
+140,26	tad apy ayuktam. yathaiva hi bāhyādhyavasāyasya bāhyārthenātyantā-dṛṣṭena saṁbandhāgrahaṇād avyabhicārāsiddheḥ pramāṇatvānupapattiḥ, tathā svaparasamtānajñānabhedādhyavasāyasyāpi. lokavyavahārāvisam-vādamātreṇa pramāṇatve bāhyārthādhavasāyasyāpi lokavyavahārāvisam-vādamātreṇa tadarthavyavasthāpakaṭvam astu, samānayogakṣemati.	20
141,3	atha: “svajñānāntaram saṁtānāntarajñānām ca tadātmanaiva dṛṣṭam, tena tadutpannasya bhrāntasyāpi tadaṁdhavasāyasya pramāṇatvam yu-ktam. bāhyas tv artho na kenāpi dṛṣṭah, iti kathām tadaṁdhavasāyasya ta-dutpannatvam pramāṇatvam ca śakyam vyavasthāpayitum?” iti.	25
+141,6	na, tadaṁdhavasāyena tadabhāvānavagamāt. yathaiva bāhyādhyavasā-	30

2 -abhy-] P E_Y; om. V **7 vā]** P E_Y; om. V **9 sarvathā]** P E_Y; sarvadā V **10 -agrahaṇe]** P E_Y; anugrahaṇe V **11 'pi]** MSS; om. E_Y **12 -buddhādi-]** P E_Y; buddhyādi V **14 bhedāsiddhau]** MSS; bhedādyasiddhau E_Y **upapadyate]** P E_Y; upa-padyata iti V **16 -seyena]** P E_Y; sāyeneti V **19 gr̥hitābhi-]** MSS; gr̥hitābhi E_Y **20 -bhāse 'narthe]** MSS; bhāsenārthe E_Y **-vartanād]** V; varttanā P E_Y **21 bhrāntir]** P E_Y; bhrānter V **22 hi]** P E_Y; om. V **23 -grahaṇād]** MSS; (gra-īṇād) E_Y **24 -jñāna-]** P E_Y; jñāne V **28 tena]** P; na E_Y; † V

Complex Omissions, Repetitions, and Transpositions:

24 -vyavahārāvisamvāda-] P E_Y; vyavahārā † V
25 -mātreṇa¹ ... 33 1 -nyāyah] P E_Y; om. V (*folio 98 missing*)

Intertextual Sources:

20 svapratि- ... 21 pramāṇam] = PVin 47,7–8

yena svātmaikagrāhiṇā na bāhyārthasya saṃvedyatvam asaṃvedyatvam vāvagantum pāryate, tathā jñānāntarasyāpi tadadhyavasāyenetī. na hy atra višeṣah kaścid asti. smṛtiḥ tv adhyavasāya eva, iti na smaraṇam api jñānāntaravyavasthāpakam.

{ § }

5

+141,9 “jñānāntarād utpannam svarūpam ātmano gr̄hṇat svasaṃvedanam kathaṃ na jñānāntaravyavasthāpakam?” iti cet, bāhyārthād utpannam ātmanah svarūpam gr̄hṇat kathaṃ na bāhyārthavyavasthāpakam? iti samānah prasaṅgah. na ca svasaṃvedanam evainam višeṣam jānāti: “jñānāntarād evāham utpannam, na bāhyārthāt” iti. tad evam jñānāntarasthāpanena bāhyārthasthāpanasya samānayogakṣemativān na bāhyārthāsaṃbhavah.

10

+141,14 na cānayor api bhedasiddhiḥ, tataś ca sahopalambhādiko hetuh. traīrūpyāvagamasya mūlam bhedopalambhaḥ. tan nirākurvann ātmānam eva hanti. iti kathaṃ tato bāhyābhāvasiddhiḥ? etena “dhiyo nīlādirūpatve” ityādy api nirastam.

15

+141,17 tathā hi:

buddher buddhyantarābhatve tadbhedah kiṃpramāṇakah /
buddhyantarāsarūpatve sā tasya grāhikā katham //
yadvat saṃbandhasaṃvādau bāhyeṣv artheṣu durghaṭau /
buddhyantare 'pi tadvantau svasaṃvinniṣṭhavādinah //
lokprasiddhisāṃvādād buddhibhedaprasādhane /
bāhyārthasyāpi saṃsiddhis tata eva prasajyate //
yathā bāhyasya saṃsiddhir na sūkṣmekṣikayekṣyate /
tathā buddhyantarasyāpi tattadbhedo 'pi durghaṭah //
agrītād yathā bāhyān na buddhir bhedam ātmanah /
vetti buddhyantarāt tadvat parokṣatvāvišeṣataḥ //
buddher vilakṣaṇākārasyānyathānupapattitah /
buddhibhedaprasiddhiś ced bāhyasyāpi kathaṃ na saḥ //
iti samgrahaślokāḥ.

20

142,2 tad evam grāhyagrāhakayor bhedaṃ nirākurvāṇenādvaitam evābhyupagantavyam. tadanabhyupagame hi “avedyavedakākārā yathā bhrāntaiḥ” ityāder apy anupapannatvam, jñānāntaragrahaṇena bāhyārthagrahaṇasya samānayogakṣematvena darśitatvāt. advaitābhyupagame 'pi virodho 'pari-

25

1 sam- em.; svasam P; svayam E_Y; † V **7 jñānāntara-**] P; jñānāntaram E_Y; † V **12 cānayor**] em.; vānayor P E_Y; † V **18 -antarāsarūpa-**] em.; āntarāsarūpa P; antarāsva-rūpa E_Y; † V **27 vilakṣaṇākāra-**] P; (vilāṇākāra) E_Y; † V **31 -abhyupa-**] P; (amyupa) E_Y; † V

Glosses and Comments:

1 asaṃvedyatvam] (*interpolated*) janakatvam P

hārya evety uktam. so 'yam gaḍupraveśākṣitārakavinirgamanyāyah śākyā-nām āyātaḥ.

+142,7 tasmād itthāṁvirodhaparihārāya bāhyārtho 'tadākāreṇaiva jñānena ve-
dyata ity abhyupagantavyam. sa ca bāhyo 'rthaḥ prāyas tāvad yathāvyava-
sthitenaivākāreṇa gr̥hyate. kvacit tv āropitenāpy ākāreṇāvabhāsate timirādi-
sāmarthyāt. ato bhrāntyabhrāntivyavasthāpi yuktā, na tv anyopādhivinirmu-
ktajñānasamvedane satīti. 5

{ §4.2 }

- 142,12 aparas tv āha: « sarve vivādāspadībhūtāḥ pratyayā nirālambanāḥ, pratyayatvāt, svapnādipratyayavad iti. yathā ca svapnāvasthāyām bāhyārthā-saṁbhave 'pi jñānākāramātrasamvedanād eva bāhyārthādhyavasāyo bhrāntyabhrāntivyavasthā ca bhavati, tathā jāgradavasthāyām api. bhedāvabhāso 'pi tadvad eva draṣṭavyaḥ. evam ca nirālambanatvam eva sādhyate, na tu bhedāvabhāso niśidhyate. tato 'numānotthānavirodho 'pi nāsti. bhedāvabhāsasya ca bhrāntatvē 'pi vyavahārāvisamvādāpekṣayā pramāṇatvān nānvayādyasiddhiḥ » iti. 10
- 142,19 samṛdigdhānaikāntikas tāvad ayam hetuḥ, pratyayatvasālambanatvayor virodhāsiddheḥ. na ca “keśāmcit pratyayānām yathādhyavasitam ālambanām na drṣṭam” ity etāvataiva vyatirekasiddhiḥ, tvaddarśane 'py anabhyupagamāt. tathā coktam: 15
- “na yuktādrṣṭimātreṇa vipakṣe 'vyabhicāritā /
saṁbhāvyavyabhicāratvāt sthālītaṇḍulapākavat //
yasyādarśanamātreṇa vyatirekaḥ pradarśyate /
tasya saṁśayahetutvāc cheśavat tad udāhṛtam //” iti. 20

143,3 atha: “anyad anyasyālambanām na yuktam.” ko 'tra virodhaḥ? “sarva-syālambanatvaprasaṅgaḥ, anyatvāvišeṣāt” iti cet, na, anyatve 'pi kāraṇavan niyamasamṛbhavāt. na hi dhūmasya svātmaiva kāraṇām sarvām vānyatvāvi-
šeṣād iti. 25

2 āyātaḥ] V; āyātavaḥ P; āpatitaḥ E_Y **3 bāhyārtho]** P E_Y; bāhyo rtho V **5 -itenāpy ā-]** P E_Y; itenā V **6 bhrāntyabhrānti-]** P2(ac) P1 V E_Y; bhrānti P2(ac) **7 -jñāna-]** P E_Y;
jñānamātra V **12 jñānākāra-]** P E_Y; jñāna V **15 'numānotthāna-]** V; numāne vi-
tyā na P; numāne bhedavyā E_Y **20 na]** P1 V E_Y; om. P2 **tvad-]** P E_Y;
tad V **23 -cāra-]** P E_Y; cāri V **25 iti]** MSS; om. E_Y **26 anyasyā-]** P E_Y; asyā V **sa-**
rvasyā-] MSS; (sarvāsyā) E_Y

Complex Omissions, Repetitions, and Transpositions:

1 śākyānām] P E_Y; † m V

Intertextual Sources:

1 so ... -nyāyah] = TUS 148,12–13

10 sarve ... 11 svapnādipratyayavad] ≈ PVA 359,4; ≈ PVA 361,25; ≈ PVA 378,25–26

16 vyavahārāvisamvādāpekṣayā pramāṇatvān] = PVA 360,18; = PVin I,44,2; ≈ PST
I,75,10

22 na ... 25 udāhṛtam //] = PVin 2.65–66 (p. I,92); ≈/ = PV 1.13–14 (PVSV 10,13–14,
10,19–20)

+143,5	“bodhotpāde 'pi prāg ivāprakāśo 'rthaḥ katham prakāśatām yāyāt? prakāśātmotpāde vā sa eva bodhaḥ, tasya prakāśalakṣaṇatvāt” iti cet, na, akṣaṇikatvasiddhau tadviṣayaprakāśasam̄bandhād eva tasya prakāśyatvāt, pradīpaghaṭavat.	
+143,8	kim cānekajñātṛsamvedyam na jñānam, tadviparītas tu bāhyo 'rthaḥ. tathā hi: “nartakī nartiṣyati” iti śrutvā taddarśanotsukā bahavo lokāḥ pravṛttāḥ tām aviṣeṣena paṣyanti. “svapne 'py etad asti” iti cet, na, tatrottarottarasam̄vādānupapatteḥ.	5
	{ § }	
+143,11	“sarva eva pratyayā nirālambanāḥ” iti bruvāṇasya svavākyopanyāsavirodhah. tathā hi: idam vākyam sādhanatvena bhavatā parapratyāyanārtham upanyastam, na ca bhavataḥ parāvabodho 'sti. avabodhe vā parāvabodhasyaiva sālambanatvāt tenaivānekāntaḥ.	10
+143,14	parāpratipattau ca katham sarvapratyayānām pratyayatvam gr̄hyate? na cāgr̄hitām paksadharmatvam gamakāṅgam. tathā dṛṣṭāntāsiddhāv agamakatvam. tatsiddhau vānaikāntikatvam.	15
+143,16	tathānumānam api yadi sarvapratyayaviṣayam, tadā tasyaiva sālambanatvam. no cet, tadā katham sarvapratyayānām nirālambanatvasiddhiḥ? “sarvānumānasya nirālambanasyaiva pramāṇatvābhypagamād ayam adoṣaḥ” iti cet, tad ayuktam, nirālambanasya pramāṇatvāyogāt. na hi pāribhāśikam jñānasya pramāṇatvam nirālambanatvam ca. kim tarhi prameyam pari-cchidyate yena, tat “pramāṇam”, yatra tu na kimcit pratibhāti, tan “nirālambanam” ucyate. tat katham nānayor virodhaḥ?	20
143,22	“svātmālambanasyāpy arthāntarālambanānapekṣayā nirālambanatvābhidhānād avirodhaḥ” iti cet, tat kim idānīm svātmāpekṣayaiva tasyānumānatvam? na ca svātmākaviṣayenārthāntarāṇām nirālambanatvam sālambanatvam vā sidhyati, aviṣayatvāt. na hi yo yasya na viṣayah, sa tena sādhyātum śakyate, tatsādhane hi sa eva tasya viṣayah syād ātmāsvarūpavat, sādhyalakṣaṇatvād viṣayasya.	25
+143,26	“maṇīvad aviṣayasyāpy avisamvādād eva siddhiḥ” iti cet, na, avisamvādino maṇījñānasya prabhāviṣayatvāsiddheḥ. siddhau vā sa eva visamvādaḥ, iti katham tasyāvisamvāditvam? taduttaram eva maṇījñānam pramāṇam iti vakṣyāmaḥ. pratyayāntarasiddhyā ca bāhyasiddheḥ samānayoga-kiṣemativam prāg eva darśitam.	30
+143,29	tena pratyayāntarasiddhivan nīlāder apy abodhātmakatvasiddhiḥ. kasyacid bāhyārthajñānasya pramāṇābhāsatvadarśanāt sarvabāhyārthajñānānām pramāṇābhāsatvam ayuktam, svapnāvasthānumānadṛṣṭāntena sa-	35

1 ivāprakāśo] P E_Y; iva prakāśo V 11 vākyam] P E_Y; svavākyam V -pratyāyanārtham] P E_Y; pratyayenārtham V 12 ava-] P E_Y; eva V 13 -syaiva sā-] P E_Y; syavamā V -ekāntaḥ] P1; aikāntaḥ P2 V E_Y 15 gamakāṅgam] V; gamakāṇmam P1; gamakāṇmam P2; gamakam E_Y -siddhāv] P E_Y; siddhāv apy V 21 ca] E_Y; vā MSS 24 -lambanānapekṣayā nirā-] em.; lambanānapekṣayā nirā V; om. P E_Y 25 tat] P1(pc) P2 V; na P1(ac) E_Y 26 nirālambanatvam] V(≈); om. P E_Y 30 -vādād eva] P E_Y; vāda V 32 katham tasyāvi-] P E_Y; tasya katham avi V 33 bāhyasiddheḥ] MSS; bāhyasiddheḥ E_Y samāna-] V P2; (sāmāna) P1 E_Y 35 tena] V P2; tena ca E_Y; tainā P1 36 pramāṇābhāsa-] P1 V E_Y; pramāṇābhāva P2

	rvānumānānām pramāṇābhāsatvaprasaṅgāt.	
+143,32	“tataḥ kim atrānupapannam? nirālambanānumānam eva, nānyat kiṁcit. nirālambanānumānasyāpy apramāṇatve bhavataḥ kārthasiddhiḥ?” iti cet, na kācid abhipretārthasiddhiḥ muktvā. syād etat: “yathā kadācid rajatapratyayabādhakasya śuktikāpratyayasya pratyayāntareṇa bādhitasyāsattve ‘pi naiva svapnendrajālādiṣu rajatapratyayasya satyatopapadyate, tadvan nirālambanānumānasyāsattve ‘pi tadbādhitasya sālambanajñānasya satyatā na yuktā” iti.	5
+144,6	kim anena vaktum abhipretam? yadi “pramāṇam antareṇa pramāṇābhāsenā vātyantādrśṭānām pratyayāntarāṇām asatyataiva vyavasthāpyate” iti, tad ayuktam, pramāṇam antareṇa prameyavyavasthāsiddher ayogāt.	10
144,9	pramāṇābhāsenā tatsiddhau bāhyārthavyavasthāsiddhir api tata eva syāt, tatsiddhinimittasyaivābhrāntapramāṇatvāt. na hi pramāṇābhrāntatvasya viśāṇe stah, kiṁ tarhi yenaiva padārthas tathātvena vyavasthāpyate, tad evābhrāntam pramāṇam, tvanmate svasaṁvedanavat. na ca rajatajñānasyāpy asatyatvam bhrāntena śuktikājñānena vyavasthāpyate, kiṁ tarhi taduttareṇābhrāntenaiva jñānenobhavayor api rajataśuktikājñānayor asatyatvam vyavasthāpyate.	15
144,14	yad vā: śuktikājñānasya śuktikāviśyatvenaiva bhrāntatvam, mithyātvaviśiṣṭarajatajñānaviśyatvena tv abhrāntatvam eva, tatrāvisaṁvāditvāt. avisamvādinaś ca bhrāntatve svasaṁvedanasyāpi bhrāntatvam syāt, tataś ca pāribhāṣikam jñānānām bhrāntatvam uktam syāt.	20
+144,16	atha: “rajatajñānādīdrśṭāntena sarvapramāṇaprameyāṇām avyavasthaiva sādhyate.” tathā sati suragurumatānupraveśah. tataś ca paralokādīvicāras tannimittapramāṇavicāraś cānupapanna eveti.	25
144,20	na cāvyavasthāpy apratītānām pratyayāntarāṇām sādhayitum śakyate. svasaṁvedanaikaniṣṭhas tu bhavān na pratyayāntaram paśyati. svasaṁvedanavedyasya cātmano nirālambanatvam bhrāntatvam vā sādhayantaṁ na kaścit tvāṁ nivārayati, kiṁ tu “sarva”-śabdo ‘narthakah. pratyayāntarāvagame vānaikāntikatvam uktam.	30
	{ § }	
+144,23	viruddho vāyam hetuh. tathā hi: sarve pratyayāḥ sālambanāḥ, pratyaya-tvāt, pratyayāntarālambanapratyayavad iti. “dharmyasiddho drśṭāntah” iti cet, tat kiṁ idānīṁ svapnādipratyayāḥ puruṣāntarapratyayāś ca na praṭīya-	

5 -sat-] P E_Y; satya V **7 -sat-]** P E_Y; satya V **sālambana-]** P E_Y; sālambana-tva V **10 vāty-]** V; cātmano nirālambanatvam bhrāntatvam vā sādhayantaṁ na kaścit tvāṁ nivārayati, kiṁ tu “sarva”-śabdo ‘narthakah. pratyayāntarāvagame vānaikāntikatvam uktam.

Complex Omissions, Repetitions, and Transpositions:

12 pramāṇābhāsenā tatsiddhau] V; *om.* P E_Y
22 jñānānām ... 24 suraguru-] P E_Y; *rep.* V (≈)

Intertextual Sources:

32 sarve ... 33 pratyayāntarālambanapratyayavad] ~ PVA 361,25–26

- nta eva? apratītaiś ca taiḥ kathaṁ vyavahāra iti?
- +144,26 “ka evam āha «na pratīyante»? kiṁ tu «nālambanībhavanti» iti brū-mah.” “pratīyante, na cālambanībhavanti” iti suvyāhṛtam. na hi pratīyamā-nād anyad evālambanam, svasaṁvedanasyāpi nirālambanatvaprasaṅgāt.
- +144,29 “yad vastu yasminn anubhave svarūpeṇa pratibhāti, tat tasyālambanam, na pratīyamānamātram, smaryamāṇasyāpy ālambanatvaprasaṅgāt.” iti cet, na, ālambanaviparītāviparītasamdigdhādyanekalakṣaṇopapannatvāt, yataḥ “jñeyam, ālambanam, viṣayaḥ, arthaḥ, pratyayāvabhāsi” iti paryāyāḥ. yac cāvisamvādini jñāne pratibhāti, tat svarūpeṇaiva pratibhāti. iti kathaṁ na pratyayāntarāṇy ālambanībhavanti? 5
- 145,4 “nanu ca: pratyayāntarāṇām sāmānyākāreṇa pratīteḥ kathaṁ svarūpa-pratītiḥ? na hi teṣām sādhāraṇam svarūpam asti, yac ca teṣām asādhāraṇam svarūpam, tat parokṣatvān na pratibhāty eva, ato nālambanam” iti. tad ayuktam, sādhāraṇārūpasyāpi vāstavatvāt, tadviṣayatvād anumānasya ceti vakṣyāmaḥ. 10
- 145,8 yadi ca “pratyayāntarāsamsargy avāstavam eva rūpam pratibhāti, ta-syaiva nirālambanatvam sādhyate,” tataḥ śaśaviṣāṇataikṣṇyasādhakānu-mānavad anarthakam evedam syāt. na hi śaśaviṣāṇavad atyantānupala-bdhaiḥ paramārthāsadbhiḥ pratyayāntaraiḥ saha pāramaparyenāpi samba-nḍho 'vagantuṁ pāryate. 20
- +145,11 maṇidṛṣṭānto 'py atra na sādhīyān, yato maṇisvarūpam paramārthasad eva tenaiva pramātrā pravṛttiuttarakālam upalabhyate, naivam pratyayānta-rāṇām svarūpam. tadupalambhe vā kathaṁ na tadupalambhasya sālamba-natvam?

{ § }

- 145,15 yad apy uktam: « lokapratiṭyaiva jāgratsvapnādipratyayānām bhedasi-ddheḥ tadaśrayena tāvat sādhyasādhanavyavahārah, tataḥ paścād yadi pa-rāmr̄śatā na kiṁcid atra vibhāgakāraṇam upalakṣyate, ity abhedam sādha-yati. tathā sati kah parasya doṣah?
- +145,17 « evam hi doṣe vedaprāmāṇyasādhane 'pi doṣah syāt. tathā hi: yāvad ve-dasyāpramāṇebhyo laukikavākyebhyo na pṛthaggraḥaṇam, tāvan na dha-rmisvarūpasiddhiḥ. tadasiddhau ca na tatprāmāṇyam api siddham, iti ni-ṣphalam anumānam syāt. na ca svaravarṇānupūrvīviśeṣād viśeṣasiddhiḥ, tadanyeśām api parasparatas tathā bhedasaṁbhavāt. 30

1 -pratītaiś] E_Y; pratīteś MSS **2 pratīyante]** P1(pc) P2 V; pratīyamte i P1(ac); pratīya-nta iti E_Y **3 su-]** P E_Y; sva V **7 -viparītāviparīta-]** P1 V E_Y; viparīta P2(≈) **8 pratyā-yāva-]** P E_Y; pratyava V **14 -rūpa-]** P E_Y; svarūpa V **-viṣayatvād]** MSS; om. E_Y **16 avāstavam]** MSS; (avāstam) E_Y **17 -taikṣṇya-]** MSS; (taikṣṇya) E_Y **-sā-dhakānu-]** E_Y; sādhanānu V; sādhakānānu P; **19 paramārthāsad-]** V; paramārthasad P E_Y **21 -rūpam]** P E_Y; rūpa V **23 -lambha-]** P E_Y; lambhana V **26 bhedasiddheḥ]** P E_Y; bhede siddhe V **27 tāvat]** P E_Y; na tāvat V **sādhyā-]** V (PVA); om. P E_Y **yadi]** P E_Y; yady api V **28 na]** V (PVA); om. P E_Y **30 'pi]** P E_Y; om. V **32 -asiddhau]** E_Y; siddhau MSS **na]** V E_Y; om. P

Intertextual Sources:

26 lokapratiṭyaiva ... 37 9 virodhah] ≈ PVA 360,21–361,3

145,22	« atha: “asti tāvad ayaṁ prabandhaḥ «kim ayam vedah, uta na?» iti vicāryamāṇah. yadi pramāṇam bhaviṣyati, tadāyaṁ veda eva. athānyathā, nānena prayojanam, iti parityakṣyāmaḥ.” samānam atrāpi: pratyayas tāvad īkṣyate.	
	svapnaprasiddhir asmāt kiṁ bhinnā no veti kalpane / yathā bhaviṣyati param tathā drakṣyāma ity api //	5
	yadi paścād vicāryamāṇam svapnajñānam anyad vā parasparam bhinnam bhavet, tadā bhedam grahīṣyāmaḥ. atha “bhedakāraṇam na kim apy asti” iti, abhedam tadā pratipatsyāmahe. tataḥ ko 'tra virodhaḥ? » iti.	
+146,2	tad etad andhavijṛmbhitam. vedaprāmāṇyavādinaḥ khalu tāval lokam paśyanti tatpratītiṁ ca jānanti. tataḥ sāmānyena lokaprasiddhasya vedā-khyasya dharmīṇah pramāṇatvādivišeṣaparīkṣaṇam yuktam. tvam punaḥ svasaṁvedanavyatirekeṇa kiṁcid api na paśyasi.	10
+146,5	pramāṇābhāṣena ca pakṣādigrahaṇe katham alīkāṅgo hetuh pramāṇam syāt? iti. (-146,7) “nanu ca: alaṅkāre prajñākaraguptenaiva svayam etad āśāṅkya pariḥṛtam.” yad āha:	15
+146,8	« “pūrvam bhedagrāhakam apramāṇam” iti cet, bhavatu, ko doṣah? “pakṣādipravibhāgo na bhavet” iti cet, mā bhūt, idānīṁ kiṁ no vighaṭitam? “idam eva, yad: apramāṇatvam abhedaśādhanasya” iti cet, evam tarhi ve-dalakṣaṇapramāṇāpramāṇasādhāraṇadharma-pratipattir apramāṇam eva syāt, paścāt pramāṇatvasādhanena nivartanāt. tato dharmisādhanasyāpramāṇatvāt taddvāreṇa pramāṇyasādhanam apy apramāṇam bhavet, iti na vedaprāmāṇyasiddhiḥ. tataḥ sakalasādhyasādhanavyavahāro viśīryeta.	20
146,14	« atha: “dharmīṇah sādhāraṇasya grahaṇe 'pi na tadgrāhakam apramāṇam, pramāṇasyādhikasya tatraiva sādhanāt” iti. tad apy asat, yataḥ:	25
	pramāṇatvam hi tasyaiva svarūpam dharmīṇo yadā / tasya tatparihāreṇa grahaṇe 'pi katham pramā //	
	(-146,18) pramāṇasvarūpam hi vedavacanam, tasya tadviparyayagrahaṇe tadviparyayonmūlāne 'pareṇa kṛte katham apramāṇatā na bhavet?	
146,21	« atha: “vyatiriktadharmābhupagamān naitad dūṣaṇam.” na, anavasthā-	30

3 -tyakṣyāmaḥ] em. (PVA); tyakṣāmaḥ V; tyajyāmaḥ P; tyajāmaḥ E_Y **5 no]** MSS;
 na E_Y **kalpane]** em. (ŚV); vikalpane P E_Y; kalpyate V **6 bhaviṣyati param]** V;
 tr. P E_Y **bhaviṣyati]** V; bhaviṣyata P1; bhaviṣyat P2; bhaviṣyataḥ E_Y **tathā]** V;
 tadā P E_Y **api]** P E_Y; om. V **10 -vādinah]** P E_Y; vedinah V **13 kiṁcid ... na]** P E_Y;
 na kiṁcid api V **17 pūrvam]** V E_Y; pūrva P **18 -pra-]** P E_Y; om. V **19 yad apra-**
māṇa-] V E_Y; yadi pramāṇa P **20 -sādhāraṇa-]** MSS; sādhāraṇāsādhāraṇa E_Y **23 sa-**
kala-] P E_Y; sakala eva V **viśīryeta]** P E_Y; viśīryate V **27 grahaṇe]** P E_Y; tadgra-
 haṇe V **29 -mūlāne]** P E_Y; mūlena V **'pareṇa]** P; pareṇa V E_Y **30 -gamān]** P E_Y;
 game V **dūṣaṇam]** P E_Y; grahaṇam V

Complex Omissions, Repetitions, and Transpositions:

7 parasparam ... 9 pratipatsyā-] P E_Y; om. V

9 -mahe tataḥ] P E_Y; hetoh V

Intertextual Sources:

17 pūrvam ... 38 11 pratipādyate] ≈ PVA 361,3–23

prasaṅgāt. tathā hi:

vyatirikto yadā dharmas tena yogah paro bhavet /
 tena yogah punas tenety ananto dharmaviplavaḥ //
 tad yuktatvam taylor eva svarūpam yadi saṃmatam /
 pramāṇatvam tathā prāptam asmākam kā virodhitā //
 bhedenāpi gṛhītasya samāropasya bhāvataḥ /
 parāmarśād abhedasya pratipattih kim apramā //

5

147,3 « “abhedapratipattuh pakṣādivibhāgena sādhanam na pravartate” ity api nāśaṅkanīyam, yataḥ parapratyayāpekṣayedam anuvādamātrakam svayam api pūrvābhyaśena sādhanaprayogaḥ. ity anavadyam “mamāpy evam āśī” iti paraḥ pratipādyate » iti.

10

147,6 tad etad īrṣyāśalyavitudyamānamarmāyam viklavam krośatīti paśyāmah. tathā hi: vedasya tāvat sāmānyaviśeṣalakṣaṇau dharmau yadi vyatirktau sādhayiṣyāmaḥ, tathā saty anavakāśa eva tvaddarśanasya.

147,9 athāpi: “atadvyāvṛttinibandhanau.” tathāpi dṛṣṭe dharmīni sadṛśātmanā niścīte sati dharmāntarādarśanasamāropavyavacchedārtham anumānam pravartata iti yuktam. yadā tu dharmīna eva pratyayāntaralakṣaṇāḥ kadācid api na dṛṣṭigocarāḥ, tadā kimāśrayam anumānam pravarteta? na hi suśikṣito 'pi kaścid ākāśe citravinyāsam śaktah kartum. yadi hi dharmīnah pratyayāntaralakṣaṇāḥ svarūpeṇa dṛṣṭā bhavanti, tadā taddarśanabalodbhūtena pratyayatvaniścayena nirālambanatvadarśanasamāropavyavacchedārtham anumānam pravartata ity eśāpi prakriyā saṃbhāvyeta, na ca piśācavad adr̥ṣṭeṣu dharmiṣu.

15

147,16 na ca svāśaṃvedanavyatirekeṇa bhavataḥ pratyayāntaropalambho 'py astīty uktam. yat punar etat “bhedenāpi gṛhītasya” ityādi, idam vismṛtaprakaraṇasyābhidhānam, yataḥ sarvapratyayānām nirālambanatvasādhanam prakrāntam, nādvaitasādhanam. atha: “sarvapratyayānām nirālambanatvenāviśeṣa evābhedo 'bhipretah, na tv advaitam.” tathāpi pratyayāntarāgrahaṇe 'numānāpravṛttiḥ. tadgraḥaṇe tv anaikāntikatvam hetor ity uktam.

25

147,21 atha: “anena krameṇa svāśaṃvedanasyaiva bhedasamāropavyavacchedah sādhyate.” na, prāg eva vicāritatvāt. api ca kim yenaiva bhedah samāropoyate, tenaiva vyavacchidyate, pratyayāntareṇa veti? “tenaiva” iti na yuktam, samāropāṇavyavacchedakākārayor ekātmavavirodhāt.

30

+147,25 atha: “pratyayāntareṇa.” “pratyayāntaram asti, na ca bhedah” iti ka

4 yuktatvam] MSS; (ayuktatvam) E_Y **5 kā]** P E_Y; na V **10 pūrvābhyaśena]** V (PVA); vā pūrvābhyaśena P; cāpūrvābhyaśena E_Y **20 -lakṣaṇāḥ]** E_Y; kṣaṇāḥ P; † V **34 pratyayāntaram asti na ca bhedah iti]** P; na pratyayāntarād bhidā E_Y; † V **ka evam bhadantād anyo]** P; evam tāvad vacaḥ ko 'nyo bhadantād E_Y; † V

Complex Omissions, Repetitions, and Transpositions:

2 tena ... bhavet] P E_Y; om. V

10 sādhanaprayogaḥ ... 39 2 pūrvābhyaśena] P E_Y; om. V

Glosses and Comments:

34 ka ... 39 1 anyo] (*interpolated*) ko nyo bhadantād P1(≈)

evam bhadantād anyo vaktum arhati? “parapratyayāpekṣayedam anuvāda-mātrakam svayam api pūrvābhyaśena” ityādy apy abhedaviruddhād ayuktam eveti. na cāpratipannaḥ parapratyayaḥ pūrvābhyaśaś ca hetutvenā-bhidhātum yuktaḥ.

+147,29 “keśādivad anālambanenaiva pratīyate” iti cet, na, keśādijñānasyāpramāṇatvāt. ata eva “avedyavedakākārā” ityādi ślokadvayam pramāṇikurvataśākyenādvaitam evābhupagantavyam. anyathā tadvirodhaḥ syāt. pratyayāntaravad bāhyārthasiddhir api nirālambanapratyayād eva bhaviṣyati. iti dustare vyasane batāyam bhikṣuh patita iti. 5

{ § }

148,4 yadi ca svātmālambanatvam nirālambanatvam abhipretam, tadā sādhyavikalo dṛṣṭāntah, svapnādipratyayānām api svātmālambanatvāsiddheḥ, svasaṁvedane pramāṇabhāvasyoktavtāt, anyasaṁvedanasya ca sādhita-tvāt.

148,7 atha: “na kiṁcid ālambanam asti” iti vivakṣitam. tadā ghaṭādivad bodhasyāpy asiddhiḥ, tataḥ svadr̄ṣṭivirodhe 'stamgataḥ jagat syāt. 15

+148,8 atha: “bāhyānālambanatvam eva” vivakṣitam. tad ayuktam, viparīta-khyātiṁ samarthayatām smṛter api smartavyālambanatvapratipādanāt.

+148,10 “yathāpratibhātārthānālambanatvam svapnādijñānavat” iti cet, evam tarhi bodhāvabhāsino 'pi pratyayasya tadālambanatvam na syāt. tataś ca bāhyārthavad bodhasyāpy asiddhiḥ. ity āyātam āndhyam aśeṣasya jagataḥ. na hi kasyacit tattvato 'siddhau bhrāntyupaplavo 'pi sidhyati, paribhāśāmā-traprasaṅgāt. 20

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+148,13 atha: “bāhyatvena pratītasya keśāder artha-prāptyanupalambhenāsa-ttvāsiddhiḥ. tatpratibhāsasya nirālambanatvāsiddhau tatsamānarūpopala-kṣaṇāt sarvapratyayānām nirālambanatvāsiddhiḥ. na punar ātmālambanatve bādhakam kiṁcid asti” iti. tad apy ayuktam, samānarūpopalakṣaṇāsi-ddheḥ. sarvatrārthāprāptau hi samānarūpatvam sidhyati. yadā tu kvacid arthaḥ prāpyate, tadā kutah samānarūpatvam? 25

+148,18 atha: “naiva kvacid artha-prāptir asti.” tatpratiṣedhas tarhi katham? na hi 30

1 -pratyayāpekṣayedam] P1 E_Y; pratyayopekṣayedam P2; † V **2 -viruddhād]** P E_Y; viruddhatvād V **ayuktam]** P1 V E_Y; amuktam P2 **3 -pannah para-]** MSS; panna E_Y **pū-rvābhyaśaś]** V; pūrvo 'bhyaśaś P E_Y **ca hetu-]** P E_Y; cāhetu V **4 yuktaḥ]** P1 V E_Y; yuktam P2 **12 -vikalo]** V E_Y; vikalpo P **svātmā-]** P E_Y; svam cā V **13 svasaṁ-]** P E_Y; asam V **16 -dṛṣṭi-]** P E_Y; dṛṣṭa V **-virodhe]** V(pc); virodho V(ac) P E_Y **-gataṁ]** MSS; om. E_Y **17 bāhyānālambanatvam]** MSS; bāhyālambanam E_Y **18 -khyātiṁ]** V; khyāti P E_Y **samarthayatām]** em.; samarthayatā V; samarthanāt P E_Y **-lambana-]** MSS; (lamba) E_Y **19 yathāprati-]** (MSS); yathā prati E_Y **-bhātārthānā-]** P; bhātārthā E_Y; bhātā V **20 -bhāsino]** MSS; bhāsīte E_Y **22 bhrānty-]** MSS; 'bhrānty E_Y **26 -siddhiḥ]** V; siddhes P E_Y **-rūpopa-]** P E_Y; dharmopa V **28 kiṁcid]** MSS; (kiṁcidad) E_Y **29 -trārthāprāptau]** MSS; trārthaprāptau E_Y

Complex Omissions, Repetitions, and Transpositions:

2 ityādy] P E_Y; † tyādy V

	piśācādivad atyantādrṣṭasyārthasya pratiṣedhaḥ śakyah kartum. “jñānād asya bhedaḥ pratiṣidhyate, na tv artha eva, tasya jñānātmakatvāt” iti cet, bhedo 'py atyantādrṣṭah katham pratiṣidhyate?	
+148,20	dṛṣṭāś ced, na tarhi tasyātyantāsattvam. “kharaviṣāṇapradhānādeḥ katham pratiṣedhaḥ?” iti cet, na, tatrāpi hi dṛṣṭasyaiva viṣāṇajātīyasya kharāmastakodbhūtatvam pratiṣidhyate, sukhaduhkhamohānām ca jagadupādānatvam pratiṣidhyate. jagadupādānasya vā paramāṇunyāyenānumitasya sukhādyātmakatvam ekatvam ca niṣidhyata iti. evam anyatrāpi dṛṣṭasyaiva deśakālasāmarthyādipratiṣedho draṣṭavya iti. svasaṃvedanapakṣe ca “bhedadarśanām na kvacid asti” ity uktam.	5
148,28	pratyakṣeṇāpāstaviṣayatvāc ca na bhedapratīṣedhaḥ pramāṇam. tathā hi: jñānam antarmukhākārāsthiraṭvādirūpeṇa vedyate, nīlādyarthas tu bahiṣṭhatvasthiratvādirūpeṇeti. prāṇabhr̥nmātravyavahāravirodhāc ca. na hi kṣaṇadhvamsijñānamātrāvagamena kaścid iṣṭāniṣṭaprāptiparihārārtham pravartata iti. “svapnādivad etat sarvam” iti cet, na, utpannabādhakānām bhavatām api pravṛttiādidarśanāt.	10
	{ § }	
149,4	« nanu ca: jñānād arthāntarate 'rthasya katham kaścid evārthas tena dṛṣṭah? yadi darśanasam̄bandhāt, so 'pi sam̄bandho yady arthāntaram, tadā tatsam̄bandhasyāpi sam̄bandhāntarakalpanā, ity anavasthā syāt. atha: “anarthāntaram.” tataḥ katham jñānād arthāntaram arthaḥ pratyakṣeṇa sidhyati? tasmāt sam̄vedanāntahpraviṣṭah sann arthaḥ sam̄vedyata iti yujyate, na tu tadasam̄sparśī.	20
+149,8	« tad uktam:	
	sam̄vedanena bāhyatvam ato 'rthasya na sidhyati / sam̄vedanād bahirbhāve sa eva tu na sidhyati // yadi sam̄vedyate nīlam katham bāhyam tad ucyate / na cet sam̄vedyate nīlam katham bāhyam tad ucyate // anyena vedane tenety eṣānavasthitih / anyena vedane caitat kuto 'vasitam ātmanā // » iti.	25
149,16	tad etad apy ayuktam. prāg eva hi sarvasyāpi vedyasya vedanāntarave-dyatvam sādhitam. dharmadharmiṇoś cārthāntaratvam vakṣyāmaḥ.	30
149,19	kim ca niścayavan nānavasthā. yathā tvaddarśane vikalparūpo niścayah, sa cātmānam aniścinvann evārthāntaram niścinoti, na ca niścayānava-	

1 -dṛṣṭasyārtha-] MSS; dṛṣṭārtha E_Y 2 cet] P E_Y; cen na V 5 hi] P1 V E_Y; om. P2 6 ca] P E_Y; om. V 9 bhedadarśanām ... 10 na] P E_Y; tr. V 14 -gamenā] V; game P E_Y 15 na] P1 V E_Y; om. P2 16 pravṛtti-] P E_Y; pratītipravṛtti V 23 -sparśī] P E_Y; sparśīti V 29 tenety] MSS; (tenaity) E_Y eṣānavasthitih] P E_Y; eṣā na sthitih V 30 vedane] V E_Y; vedanām P 34 aniścinvann] P E_Y; niścinvann V

Complex Omissions, Repetitions, and Transpositions:

28 na ... ucyate] P E_Y; om. V

Intertextual Sources:

25 sam̄vedanena ... 30 //] = PVA 366,16–19 (kk. 2.717–718, 2.719cd–720ab)

	sthā, tathānyasyāpi jñānasyājñātasyaivārthāntarajñeyavyavasthāpakaṭvam aduṣṭam.	
+149,21	niścayasya cārthāntaravyavasthāpakaṭvam tvayaivābhuyupagatam, ya-smād uktam: “keśajñāne sati pūrvānubhūtasmaraṇād evam̄bhūtāpratibhā-sānantaram prāptir āśīt. tad vikalpo grāhyagrāhakollekhenotpattimān, so 'pi svarūpeṇa grāhyagrāhakarūparahita evāpareṇa tathā vyavasthāpyate. na tasyāpi svato 'vyavasthā” iti.	5
+149,25	“vikalpaḥ smṛtirūpatvād anālambana eva” iti cet, bhavatu, tathāpi tāvad asya grāhyagrāhakakṣanikatvādyātmakatvenārthāntaravyavasthāpane sā-marthyam iṣṭam eva. tadvat sthiratvādikabāhyārthavyavasthāpane nirālambanānām eva sāmarthyam bhavatu iti, nāsmākaṁ grahaḥ. syād etat: “vi-kalpasya smṛtirūpatvād yathānubhūtārthavyavasthāpakaṭvenaiva prāmāṇyasaṁbhavāt, svaviditajñānadharmavyavasthāpakaṭasyaiva vikalpasya prāmāṇyam yuktam, na tv ananubhūtabāhyārthadharmavyavasthāpakaṭya” iti.	10
+150,1	kuta etat pratipattavyam? na khalu tāvan nirvikalpakenaivātmānaḥ kṣaṇikatādisvabhāvo 'nubhūyamānaḥ pratīyate. niścayas tu bāhye 'py asti, iti kathaṁ tasyānanubhūtavam? na ca tvanmate gṛhitagrāhiṇaḥ prāmāṇyam iṣṭam, “yathādrṣṭākāragrahaṇān na pramāṇam” iti vacanāt, “ajñātārtha-prakāśo vā” iti višeṣaṇāc ca.	15
	{ § }	
150,6	api ca: svapnādijñāneśv api vicchedenāvabhātānām arthānām asa-ttvam kathaṁ niścitam? yadi “visaṁvādād arthakriyānupalabdher vā” ity ucyate, tad ayuktam. yadi hy avisamvādenārthakriyayā vā vyāpto 'rthaḥ kvacid upalabdho bhavati, tadā tadabhāvād arthābhāvah sidhyati, dahanā-bhāvād dhūmābhāvavat. yadā tu bāhyārthasyātyantāpahnavaḥ, tadā na ta-sya kenāpi saha vyāpyavyāpakabhāvah pratipannaḥ. iti kathaṁ viparyaya-vyāptih?	25
+150,11	syān matam: “svapnādibuddhīnām viśayābhāvah sarvalokasiddhatvān nāsmābhiḥ sādhyate” iti. na, lokprasiddheḥ pramāṇatvānabhyupagamāt. abhyupagame vā tata eva jāgradbuddhīnām pakṣikṛtānām viśayasiddhiḥ, iti kathaṁ sarvapratyayānām nirālambanatvasiddhiḥ?	30
+150,14	svayam cāpratipadyamānya paraprasiddhimātreṇa drṣṭāntopādānam	

1 -syāpi] P E_Y; syaiva V jñāna-] V; jñāta P E_Y 6 -rūpeṇa] P E_Y; rūpe V -grāhaka-rūpa-] P E_Y; grāhakollekha V vyavasthāpyate] P E_Y; samvedyate V 7 'vyavasthā] P E_Y; vyavasthā V 8 eva] P E_Y; om. V 10 -ka-] P E_Y; dharmaka V nirālambanā-nām] MSS; nirālambanam E_Y 13 prāmāṇyam] MSS; pramāṇatvam E_Y 14 ananu-] V; anu P E_Y 16 -tādi-] P; tvādi V E_Y tu] P E_Y; om. V 18 -jñātārtha-] V E_Y; jñānārtha P 21 -bhātānām] P2(ac) P1 V E_Y; bhāsatām P2(pc) asattvam] P E_Y; asa-ttvam bhavatā V 22 -kriyānu-] V; kriyād anu P E_Y 25 -syātyantāpa-] V; syātyam nāpa P; syānapa E_Y 27 -vyāptih] MSS; vyāptih syāt E_Y 29 sādhyate] P2(pc) E_Y; sādhyana P2(ac) P1; sidhyata V 32 cāprati-] MSS; vā prati E_Y

Intertextual Sources:

4 keśajñāne ... 7 'vyavasthā] = PVA 366,12–16

18 yathādrṣṭākāragrahaṇān na pramāṇam] = HB 3,2–3

ajñātārtha-prakāśo vā] = PV 2.5c; = PVA 30,2

ayuktam, parārthānumānasya svadr̥ṣṭārtha prakāśa nala kṣaṇatvāt. tathā co-
ktam: “yathaiva hi svayam trirūpāl liṅgāl liṅgini jñānam utpannam, tathaiva
paratra liṅgijñānotpi pādayiṣayā trirūpaliṅgākhyānam parārtham anumānam,
kārane kāryopacārāt. svadr̥ṣṭārtha grahanam

āgamāt paradrṣṭam na sādhanam nāpy anarthataḥ /

5

siddhir iti jñāpanārtham” iti. tasmān na paraprasiddhimātreṇa svapnādijñā-nānāṁ drṣṭāntatvam yuktam. sahopalambhādisādhanam ca prāg eva nirā-kṛtam, iti na tato drṣṭāntasiddhiḥ. siddhau vā tata eva sādhyasiddher apy upapattih, iti vyar�ham pratyayatvam.

+150,21 api ca: yo 'yam nīlādyākārah svapnādijñāneśu pratibhāti, tasyaivāsa-
ttvam bādhakāt pratipadyante vyavahartārah. tad yady asau jñānād arthā-
ntaram na bhavati, tadā jñānasyaivāsattvam prāptam. na vānīlādyākāram
svapnādijñānam, tataś ca “nirākārāḥ sarve pratyayāḥ, pratyayatvāt, svapnā-
dipratyayavat” iti vākyārtho nirālambanānumānasya prāptah. yadā caivam
na vyatiriktaḥ, nāpy avyatirikto nīlādyākāro 'sti jñānasya, tadā sarvavyava-
hāroccheda eva prasajyata iti. 15

{ § }

+150,27 yadi ca sarva eva pratyayā nirālambanāḥ, tadā vyavahartīṇāṁ kvacid
visamvādah, kvacit tu deśakālādīvyavadhāne 'pi samvāda eveti kuto 'yam
niyamah? "vāsanābhedāt" iti cet, atha manyase: "yatrādṛḍhavāsanānimi-
ttam, tatra visamvādah, yatra tu dṛḍhavāsanānimittam, tatra samvādah" iti.
na, pramāṇābhāvāt. (-151,5) api ca varam evam bāhyārthānām eva dṛḍhā-
dṛḍhabhedena nimittatvarī kalpanīyam, teṣāṁ vyavahāraviśayatvopapa-
tteh, na tu vāsanānām.

+151,6 vāsanādṛḍhatve ca kim nimittam? na tāvat paṭupratyayaḥ, apūrvārthavi-
šeśānabhyupagamāt. akasmāc ca pratyayavīšeṣo jñānamātrān notpadyate.
atha: “ādarapratyayo ‘bhyāsapratyayo vā nimittam.” na, vyabhicārāt. tathā
hi: kāmaśokādyabhibhūtānām kāminyapatyādyartheṣv ādarābhyāsātiśaya-
pratīteṣv api punaḥ kadācit tathārtha-pratyayasya visamvāditvam dṛṣyate,
kvacit punar atyantāpūrve ‘rthe ‘nāścaryakāriny api pratyayah samvādy 30

2 liṅgāl] P E_Y; om. V **4 -cārāt]** MSS; (carāt) E_Y **7 ca]** P E_Y; om. V **8 sādhya-]** P E_Y; om. V **11 pratipadyante]** V E_Y; pratipādyante P **yady]** MSS; yad E_Y **12 vānīlādya-]** (MSS); vā nīlādya E_Y **14 vākyārtha nirālambanānumānasya]** P E_Y; tr. V **19 tu]** P E_Y; tad V **23 -tvam̄ kalpaniyam]** V; tvam̄ kalpanam̄ P; tvakalpanam E_Y **-viṣayatvopa-]** P E_Y; viṣayopa V **24 na tu]** P1 V E_Y; nanu P2 **25 paṭu-]** MSS; paṭuh E_Y **26 notpa-**
dyate] V; nopapadyate P E_Y **28 ādarābhya-]** V; atyādarābhya P E_Y **30 'rthe 'nāścarya-]** P; rthenāścarya E_Y; † V

Complex Omissions, Repetitions, and Transpositions:

²¹ tatra¹ ... samyādah] P E_y; tatrāvisamyāda V

29 tathārtha-pratvayasya ... 45 29 uktam] P Eγ: tathārtha-prat V (ms. ends abruptly)

Intertextual Sources:

1 parārthānumānasya svadrstārthaaprakāśana-] = PS 3.1ab; = PVin 3.1ab (2011, p. 1)

² yathaiva ... 6 jñāpanārtham] = PVin 3 (2011) p. 1,2–7

3 trirūpaliṅgā- ... anumānam] = NB 3.1

4 kārane kāryopacārāt] = NB 3.2

	eveti. “tatrāpi janmāntarodbhavavāsanāsti” iti cet, na, tadviparītpratyayā-bhyāsāt tasyās tirobhāvasaṁbhavāt. anyathā hi nairātmyādyabhyāsād rā-gādivāsanānām api tirobhāvo na syāt.	
+151,14	na ca jñānavyatirktaṁbhāve niyatavāsanāprabodhakām kāraṇam asti. pūrvajñānavināśe hi sāmpratam anekavāsanātmakam eva jñānam asti. kathaṁ tata eva niyatapratibhāsodayah? uttaratrāpi vāsanānimittam vicārayisyāmah, ity āstām tāvat.	5
	{ § }	
151,18	itaś ca na jñānātmaka eva nīlādir arthaḥ: svaparasamvedyavat. na hi jñānasvabhāvavyānekapuruṣasamvedyavatvam upapadyate. kathaṁ punar arthavyānekapuruṣavedyavatvam gamyate? “vacanapravṛttīdyavisamvādaliṅgāt.” taimirikadvayavacanādes tu puruṣāntaravisamvāditvād aliṅgatvam.	10
+151,21	yadi ca parāvabodhaḥ pratyetum na śakyate, tataḥ sāstraprāṇayanādiś apravṛttir eva prāptā. na hy unmatto 'pi kaścid ātmāvabodhārtham eva sāstraṁ vyācaṣṭe, sādhanādyupanyāsaṁ ca vāde karoti, asādhanāṅgava-canādyudbhāvanena cātmānam eva nigrhṇatīti.	15
151,25	atha: “bāhyārthābhāve 'pi parāvabodhavyāpāravyavahārapratibhāsalil-ṅgānumeyatvād adoṣah. tathā hi: svagataprayatnavivakṣānirapekṣayoś ce-śṭāvākyapratibhāsayor anyādhipatyenotpattir anumīyate” iti. naitad asti. svasaṁvedanamātravādinām hi svajñānāntarāvagamo 'pi na saṁbhavati, kutaḥ parāvabodhāvagamah? iti prāg eva prapañcitam.	20
152,2	api ca: “svapnavat sarvapratyayā nirālambanāḥ” iti bruvāṇasya kathaṁ samtānāntarasiddhiḥ? na hi svapnadṛṣṭābhyaṁ gamanavacanapratibhāsā-bhyaṁ vāstavī puruṣāntarasiddhir upapadyate. nāpi svapnabuddhyākhyā-navādādikaraṇam parānugrahajayaparājayādikam vā kiṁcid upapadyate. dharmāpavargādisādhanānuṣṭhānam na prāpnoti. na hi svapne kṛtam buddhālayādikarma brahmācaryādikam vā dharmasādhanam, abhakṣyabha-kṣaṇāgamyagamanādikam vādharmasādhanam yuktam. na ca nirviṣaya-tvāvišeṣe svapnajāgradavasthāyor višeṣah kaścid asti (-152,10) yenaikatra dharmādisādhanavyavasthā, nānyatreti.	25
+152,10	“dharmādisādhane 'pi bhrāntita eva pravṛttiḥ” iti cet, bhavantas tarhi tattvadarśināḥ santaḥ kimartham buddhadharmaśaṁghadānādyupadeśeno-pāsakapratibodhanāya pravartante? “pūrvasaṁskārāt” ity etad apy asad uttaram. na hi vikalavatpratibuddho 'pi kaścid amedhyādibhakṣaṇe prava-rtate.	30
+152,13	tasmād ime saugatāḥ śūnyatābhidhānenāsāratām pradarśya, “bu-ddhāya deyam, dharmāya deyam, saṁghāya deyam” ity evam lokān viprā-tārya, miśṭānnapānādyupayogam kurvantāḥ, pūrvasaṁskārāvišeṣe 'py amedhyabhakṣaṇādikam pariharantāḥ, “cakrabhramaṇavād asmākam pūrvasaṁskārād eva pravṛttiḥ” ity evam bruvāṇāś ca dhūrtatām evātmanāḥ	35

1 tad-] cj.; atad P E_Y; † V 11 -avisaṁvāda-] em.; avisamvādi P E_Y; † V (etc.) 20 hi] P; om. E_Y 23 -drṣṭābhyaṁ] P; drṣṭāntābhyaṁ E_Y 24 nāpi] P1 E_Y; no pi P2 svapna-] cj.; svapnavad P E_Y -buddhyākhyāna-] P; buddhākhyāna E_Y 25 -karaṇam] em.; karaṇe P E_Y 26 buddhālayādi-] P; buddhāśrayādi E_Y 34 vikalavat-] E_Y; kala-vat P -pratibuddho] E_Y; pratibuddhau P 37 evam] em.; eva P E_Y 38 miśṭānna-] P; (miśṭānna) E_Y

prakaṭayantīti. (-152,18) yathaiva hi cakrasyābhṛāntau satyāṁ bhramaṇa-saṁskāro na bhavati, evam miṣṭānnādibhrāntinivṛttau taddhetuh saṁskāro na yujyate. na hi jalādibhrāntinivṛttau tatsaṁskārād eva tadarthakriyāsi-ddhyartham̄ pravartamānah kaścid upalabhyate.

{ § }

+152,20 api ca nīlādyarthābhāve katham̄ nīlādijñānam? na hi nirhetukam̄ kāryam̄ saṁbhavati,

“nityam̄ sattvam̄ asattvam̄ vā”

ityādibādhakāt. (-152,23) na ca jñānamātrād aviśiṣṭād eva vilakṣaṇapratibhāsaḥ saṁbhavati, kāryānumānavirodhaprasaṅgāt. na hi nīlādijñānānām̄ pratyekam avicchedenānādiḥ saṁtāno grhyate yena kāraṇānuvidhānam̄ kāryasya pratīyeta. ekārthapratibhāsapravāhe khalu tadvilakṣaṇahetusamnipātam antareṇa katham̄ tadvilakṣaṇah pratibhāsaḥ prādurbhavati?

10

+152,26 bāhyārthapakṣe tv aduṣṭasahakāriṇah pumso jalādyarthasaṁnipātād avitatham̄ jalādijñānam̄ tadarthānuvidhānenāiva bhavati. duṣṭasahakāriṇas tu viparyaya iti, yathā nīhāreṣv adṛṣṭādyupaplutākṣāṇām̄ gandharvanagara-jñānam, mantrādyupaplutākṣāṇām̄ māyāviprayuktadravyavišeṣe bhojanādi-jñānam. svapnādijñānam̄ api nimittāntaropanipātād bāhya evārthe bhavatīti prāg eva prapañcitam.

15

153,4 na caivaṁ hetuvaicitryam̄ vijñaptimātrapakṣe 'sti, tat kutaḥ pratibhāsa-vaicityam̄ iti? “vāsanāvaśāt pratibhāsavaicitryam” iti cet, jñānavyatiriktārthānabhupagame kā vāsanā?

20

153,7 “nanu coktam: «vāsanā» iti pūrvajñānajanitām̄ śaktim̄ āmananti vāsanā-vidah” iti. atha: kiṁ pūrvajñānenātmatulyajñānotpādikā śaktir janyate, vilakṣaṇajñānotpādikā veti? pūrvasmin pakṣe nīlajñānotpāditān nīlajñānān nīla-jñānasyotpattiḥ, tato 'pi nīlajñānasyaiva, iti nīlajñānasamṛtānah. ekasmin saṁtāne 'nekākārajñānodayo na syāt.

25

+153,11 uttarasmin pakṣe tu kiyantam̄ api kālam ekākārajñānapravāho na syāt. “kālāntare” ca “tatsadṛśotpādakatvam” ity apy ayuktam, kṣaṇikatvena naṣṭasya janakatvāsambhavāt. “kārpāse raktatāvat” ity etad apy uttaratra nirākariṣyāmaḥ.

30

153,14 kiṁ copādānād anyena vāsyamānam̄ drṣṭam, yathā lākṣādinā kārpāsā-dikam, puśpādinā vastram̄ ceti. na ca jñānasyopādānād anyat kāraṇam iṣṭam. saṁtānāntarajñānam̄ tu bāhyārthavad aviditam̄ katham̄ vāsakatvena kalpyeta?

35

{ § }

+153,16 yadi ca vāsanaiva nimittam̄ syāt, tataḥ smṛtir eva syāt, na spaṣṭābhataḥ. na hi kevalavāsanātaḥ spaṣṭajñāne spaṣṭa ubhayaprasiddho drṣṭānto 'sti.

8 vā ity-] P; cety E_Y **17 bhojanādi-**] E_Y; bhājanādi P **25 -pāditān]** em.; pāditā P; pā-dikā E_Y **30 kārpāse]** E_Y; karpāse P **etad]** P; (ed) E_Y **32 kārpāsādi-**] em.; karpā-sādi P E_Y **33 anyat]** P; anya E_Y **38 spaṣṭā]** em.; spaṣṭā P; spaṣṭābhataḥyām E_Y **-prasiddho]** em.; prasiddhau P E_Y

Intertextual Sources:

23 vāsanā ... vāsanāvidah] = PVA 356,6

viparyaye tu smṛtir eva dṛṣṭāntah. kāmādyabhibhūtānāṁ stryādinirbhāsaṁ jñānam sādhyatvād anudāharaṇam, tasyāpi stambhādyālambanatvān nimilitākṣasyānuptpādāc ceti.

- 153,21 yad apy ucyate, “svapnopalabdhārthānāṁ yathā jāgradavasthāyām anupalambhād asattvam, tathā jāgradupalabdhārthānāṁ svapnāvasthāyām anupalambhād asattvam” iti, tad apy ayuktam, svapnopalabdhārthānāṁ svapnāvasthāyām api viplavadarśanāt. tathā hi: prabhūtam udakam pibato 'pi ṭṛṣṇāvicchedo na bhavati, bhojyam bhuñjānasyāpi kṣun na nivartate, mṛtāś chinnaśirasaś ca jīvanto bruvantaś ca, gavādayo 'pi bruvāṇā dṛśya-
nte, tiryāṁmānuṣādīnāṁ ca kṣaṇamātreṇa jātiviparyayaḥ, kāryakāraṇabha-
vaviparyayaś ca. ity evamādiviplavo dṛśyate. na ca jāgradupalambhāḥ svapnāvasthāyām apy asatyatvenaivānusandhīyante. 5
- 154,7 “nanu: svapnopalabdhō 'pi śukravisargo na vyabhicarati.” tataḥ kim? “tatkāraṇasyāpi strīsam̄parkasya satyatvaprasaṅgah” iti cet, na, mithyājñā-
najād api rāgātiśayād retaḥsyandasya saṁbhavāt, sravilepananakhakṣa-
tādikāryānupalambhāc ca. tasmāj jāgrataḥ svapato vā yad avisamvādi jñā-
nam, tat satyārtham eva. yasya tu visamvādo bhavati, tad asatyārtham, vi-
parītālambanam ity arthaḥ. 15
- 154,12 api ca bhāvanānvayavyatirekānuvidhāyitvam yasyopalabhyate, tad vā-
sanānimittam yuktam, yathā kāmakrodhādi. dhanadhānyādikam tu bhāva-
nātiśayād api kṛṣyādyupāyahīnasya na sampadyate. vināpi bhāvanām iṣṭā-
niṣṭāpūrvārthaprāptir upalabhyate. 20
- 154,15 atha vaiyātyāt: “apūrvārtho naivopalabhyate.” tad ucyate: tadā mokṣa-
sāstropalambho 'py apūrvo na syāt, tataś ca mokṣopāyavāsanāpi saṁsāra-
nimittavāsanāvad atāttvikatvān na mokṣasādhikā. na hi kadācid apūrvavā-
sanādhāyakam nimittam upalabhyate yadvaśād apūrvo 'pavargah syād iti. 25
- +154,18 tad evam pratyakṣādibhiḥ pramāṇaiḥ svaśāstrārthena ca viruddhatvād
ayuktam evoktam “sarvam nirālambanam eva jñānam” iti. tasmād arthasya
sthūlākāratā, na jñānasyeti yuktam uktam.

1 -bhāsaṁ] P; bhāsa E_Y **5 -labdhārthānāṁ]** P; labdhānāṁ E_Y **8 ṭṛṣṇāvicchedo]** cj.;
vṛddhyavasthēdo P; tarṣopaśamo E_Y **9 mṛtāś]** em.; mṛtā P1 E_Y; mṛto P2 **ca²]** P;
aśva E_Y **13 'pi]** P; om. E_Y **14 -tva-]** P1 E_Y; tvam P2 **15 -syanda-]** P; spa-
nda E_Y **23 vaiyātyāt]** P; vaijātyād E_Y **25 atāttvikatvān]** E_Y; anātvān P **27 -śāstrā-**
rthena] P; (śāstrārthena) E_Y **29 na]** E_Y; om. P

Glosses and Comments:

23 vaiyātyāt] dhārṣṭyād P1

Intertextual Sources:

19 bhāvanānvayavyatirekānuvidhāyitvam] ≈ PVA 359,8–9

3 Translation of NBhū 104–154

The new translation below is to be read alongside the newly edited Sanskrit text. Both have nearly the same punctuation marks and paragraph breaks, by design. High-level sections (e.g., 2.1, 2.2, etc.) marked in the edition with curly brackets around the section symbol “§” and the relevant section number, e.g., “{ §2.1 }”, are marked here in the translation with the section symbol “§”, the relevant section number, and an English label, all in bold, e.g., “**§2.1 Invariable Co-apprehension (sahopalambhaniyama)**”. Similarly, subsections marked with just the section symbol “§” in the edition are marked here in the English translation with the section symbol “§” and a main point in italics (e.g., “*Error is impossible if difference is negated*”, part of §3.3). Taken together, these headers create the Analytic Outline. Finally, page and line numbers in the left margin of the translation, e.g., “104,6”, refer to the 1968 edition in the same way that the edition does (see §2.2, “Notes on Using the Edition”).

Meanwhile, there are also two novel digital features in this translation. Firstly, the abovementioned marginal page and line numbers identifying each paragraph are actually hyperlinks to the online digital presentation of the critical edition and witness transcripts, using Bruchelion, as described in §2.1.3 and Appendix 6D of this document. In addition, boxes around some intertextual references in the footnotes, also accompanied by the “hooked right arrow” character ↵, e.g., “~ PV 2.84–85 ↵” on the first page, indicate live hyperlinks to the online intertextuality tool, Vātāyana, as described in Part II, §6 of this document. Both of these features are of course available only in the electronic (PDF) version of this document.

3.1 Notes on Translation Method

Perhaps the most unusual feature of this translation is the amount of care given to the use of brackets. Square brackets in the translation give clarificatory details implied by the context but not explicit in the Sanskrit. If they are completely removed from the sentence, what remains is a more literal word-for-word translation that is still grammatical English. Round brackets (i.e., parentheses) reveal only inter-language information for single terms or phrases and so can also be removed without affecting sentence grammar. In some cases, square boxes around such inter-language information (e.g., “(tathāsti)” on the first page) call attention to textual emendations, which can be cross-referenced in the critical edition.

Generally speaking, my translation attempts to render technical Sanskrit into relatively smooth, readable English, so that the reader may more quickly and easily understand the text's argumentative structure. Thus, many function words (like *ca*, *eva*, *vbhū*, *upavpad*, etc.) are translated in a range of ways, according to how they function in their local context. On the other hand, certain content words with technical meanings, addressed below, are particularly central to the argument, such that overall understanding is better served by translating them less freely; the resulting technical flavor is in fact a virtue rather than a drawback, as the definition and use of these terms is at times exactly the point of the whole debate. At times, it seems preferable to even leave some content words untranslated. However, I almost always refrain from this here, and instead I choose default English

translations for each. In the following, I state these defaults and discuss the overlapping semantic ranges of the respective Sanskrit and English words as necessary. Etymology is based on Mayrhofer (1992-2001) unless stated otherwise.

avayava and *avayavin*: “part” (sometimes “component part”) and “whole” (sometimes “composite whole”). While the **in* suffix in Sanskrit often can be interpreted as possessive, suggesting a more literal translation like “part-possessor” for *avayavin*, the unidirectionality of such a phrase is inappropriate for the present discussion, since the parts, in bringing about and sustaining the whole (on the Nyāya-Vaiśeṣika view), are equally qualified to be spoken of as a possessor in that respect. Thus, it is better to understand the **in* suffix as indicating merely a general relation and not possession specifically. Meanwhile, Dharmakīrti also uses the substantivized adjective *sarvam* as a synonym for *avayavin*. Therefore I use the more familiar “part/whole” distinction in English, occasionally supplementing with “component” or “composite” when this seems helpful, although this should never obscure the fact that the Naiyāyika sees the whole as unquestionably unitary and *not* composite in the sense of being a mere assemblage.

sthūla: “gross”. While somewhat unfortunate for its negative connotation in colloquial English, it is still the best established single term contrasting with “subtle” (*sūkṣma*) in Indian philosophy, not least because Romance languages also use descendants of Latin “*grossus*” and German uses the coincidentally similar “*grob*” (etymologically ≈ Eng. “gruff”). Since *sūkṣma* derives etymologically from *su* (“good”) + *kṣmā* (“earth”) and is therefore similar to Eng. “fine-grained”, the word “coarse” might also have been good for translating *sthūla* into English, but it is also a bit misleading for its suggesting texture. Modern Western philosophers also speak of “medium-sized”, “macroscopic”, and “solid” objects for the everyday things we can perceive with our normal senses, but none of these felt literal enough for “*sthūla*”. “Spatially extended” (cp. e.g. Dunne 2004, p. 404), which perhaps fits better with the Buddhist term *āyatana*, was also considered as a close second.

citra: “variegated”. Outside of Indological English, this term is found in English mostly in specialized scientific subjects like botany and geology, where Sanskrit also employs *citra*. In the present context, *citra* refers to not only the dappled multicolors of natural objects and the mosaic compositional structures of man-made things like paintings (*citras*) and jewelry, but also to anything that exhibits such perceivable structural variety as to inspire wonder, hence its also meaning “wondrous” and being used as an indeclinable interjection, which lends itself to punning; cp. Dunne's (2004) translation “psychedelic”, see (398n6). Etymological cousins of *citra*, from the Sanskrit root *vicit* “shine (strikingly and pleasantly)” — from PIE plain velar **vkeyt* “shine”, to be distinguished from *vci(t)* “observe, recognize” from labiovelar **vkʷey(t)* — are Ger. “*heiter*” and Skt. *ketu* “sign” or, notably, in astrology, “unusual or striking phenomenon” including comets and falling stars (MW). I thus reject the perhaps occasionally more relatable choice “multicolor(ed)” for being too narrow. Like Tomlinson (2019), I also simply shift between “variegated”, “wondrously variegated”, and “wondrous” as needed.

ākāra: “form”. Closely related is *ākṛti*, which is a thing's physical shape (cp. NS 2.2.66 on the meanings of words). I do not choose “image” because I find that it too strongly begs the question about representationalism (e.g., *sākāravāda*) so prominent in the discussion here,

and since it may be misleading in discussions of phenomena that are not directly visual, e.g., cognition's playing both roles of apprehender and apprehended or its occasionally "gross" (*sthūla*), or "manifold" (*aneka*) character. Also good is "aspect", but it is rarely better than "form" and distinctly more awkward in the context of an object's projection into consciousness (*svākārārpaṇa*). As the Lat. counterpart to Grk. *morphe*, "form" retains the right balance of neutrality and abstractness.

व्यृतः: I translate with "reside", so as to be clear about this being an important technical term; often the meaning would also have been well served by such verbs as "occur (in)", "exist (in)", "be present (in)", or "be located (in)", but these often seem not quite conspicuous enough. By contrast, I find the translation "subsist" (as in Jha) not clear enough. Also definitely avoided here, out of deference to *samavavi*, is "inhere".

देशः: I translate sometimes as "part" and sometimes as "place" (compounding *pra* and *eka* influence the choice somewhat), which touches on a tricky ontological question at the very heart of the present discussion. Specifically, when used to describe a component, "part" is proper, not despite but precisely because of the potential confusion with *avayava*. Or, when used to describe a mode of being or acting (especially *vṛtti*, "residence"), whether with *ekadeśena* in contrast with *sarvātmanā* or *kārtsnyena* ("entirely, wholly"), or with *pradeśavṛttitva* in contrast with *vyāpyavṛttitva* ("pervasively"), "partially" is best. By contrast, when used to answer the simple question "where?", I use "place". Other possibilities straddling the first and third cases are "partition" or "region", which however I find tend to complicate things unnecessarily. One further note on perspective: When talking about, for example, the whole being "partially" (*ekadeśena*) located here or there, the "parts" in question are the supposed ones of the whole itself. On the other hand, when discussing, e.g., the "partial" occurrence of conjunction (*samyoga*) only in certain parts of things *pradeśavṛttitva*, the parts in question are not those of the conjunction itself but rather those of the conjoined things in question.

(*vi*)*व्यज्ञा*, *प्रतिवि*, *वावगम*, *वग्रह*, *वर्द्ध*, (*वा*)*वबुध*, *उपवलभ*, (*सम्*)*व्यविद*, (also poetically:) *व्यधी*, (*निर*)*विक्ष* — vs. *प्रत्यक्षा* and *अनुव्यभु*

Generally, our author does not use the first group of words (*व्यज्ञा* through *विक्ष*) contrastively, instead varying his usage of them for what appear to be mainly stylistic reasons.¹⁸⁶ Indeed,

¹⁸⁶ Cp. the following statements by Nyāya-Vaiśeṣika authors, always in the context of *buddhi* as a soteriologically significant Nyāya *prameya* (and against certain Samkhya views), that such terms are simply "(near)-synonyms":

"*buddhir upalabdhijñānam ity anarthāntaram.*" (NS 1.1.15)

"*buddhir upalabdhijñānam pratyaya iti paryāyāḥ.*" (PPBh [8.12])

"*buddhir upalabdhijñānam darśanam iti paryāyāḥ.*" (NyKal §2.3.5, Kataoka 2017b, 30)

Bhāsarvajña is no exception (NBhū 439,14ff., emphasis mine):

any attempt at associating specific meanings to specific terms only leads to a disastrous muddling of the author's arguments, in my experience.

Nevertheless, taking this group of Sanskrit terms as a whole, we can still profitably distinguish a few different senses in translation, as summarized in Table 4 below.

Translation	Sense	Type
cognition	entity	thing
awareness	quale	state
apprehend	access	action
observe	assent	action
know	naïve	state
thought	content	thing
perceive	direct	action
experience	direct	action

Table 4: Translating “cognition” words (*Vjñā* etc.)

First, I generally use “cognition” etc. (a Latin cognate of *Vjñā*) as a neutral default for indicating an episodic mental event conceived of as an entity that can undergo relations. Second, I use “awareness” to emphasize the subjective state involving the “quale” of presence. Third, I use “apprehend” to emphasize the act of establishing a relationship of access to other entities. (I avoid “grasp” e.g. for *Vgrah* as being overly clunky and not worth the etymological gain.) Fourth, I use “observe” and “acknowledge” (equivalently also “recognize”, “understand”, and even “see” when the particular modality of vision is prominent) to emphasize the act of taking in and assenting to an idea, i.e., permitting an idea to enter into epistemological relations with other things (cp. Wilfred Sellars's “space of reasons”). Fifth, for focusing on particular discursive content (for example as indicated with “iti”) as an entity, I may also use “thought”. And sixth, I generally avoid the use of “know” (the Germanic cognate of *Vjñā*) unless there is no danger of running up against the common modern definition of knowledge as “justified true belief”. Thus, *mithyājñāna*, for example, is better as “false cognition”, whereas idealized *samyagjñāna* can safely be rendered as “true knowledge”. Besides this extreme case, however, it is generally only to designate the naïve, everyday sense of being in a state of possessing information that I use “know”, provided that the context makes clear that nothing more precise or loaded is meant. This division into six senses should be understood as a working philological hypothesis subject to falsification through close analysis of arguments.

buddhir upalabdhīr jñānam ity anarthāntaram. pradhānasyādyah pariṇāmo buddhiḥ, pūmsaḥ pratibimbodayalakṣaṇo bhoga upalabdhīḥ, viṣayākāreṇa buddheḥ pariṇāmo jñānam — ity asya darśanasya nirākaraṇārthaṁ paryāyo 'pi lakṣaṇam uktam. **pratītiḥ, avagamaḥ, vijñānam** — ityādiśabdānām api arthabhedakalpanāyām kim vaktavyam? tatrāpy etad evottaram — **paryāyaśabdā eva ete iti.** sā ceyam buddhir doṣanimittebhyaḥ prasāṃkhyānenā nivartitā apavargahetuḥ, anivartitā ca saṃsārahetur apy evam jñātavyā.

Finally, “perceive” etc., often with an explicit “direct”, is reserved for *pratyakṣa*, as one of the *pramāṇas*. The case of *anuvbhū* is also special. Most neutrally, it can simply have the sense of “apprehension” detailed above, but it often also carries additional senses of “awareness” and “directness”, in which case it is translated as “experience”.

Some further important doctrinal contrasts to note: Here there is no use of *vijñāna* as “consciousness”, one of the four mental *skandhas* in Abhidharma Buddhism (along with *vedanā*, *saṃjñā*, and *saṃskāra*) nor of *buddhi* as “intellect”, one of the *tattvas* in Sāṃkhya, neither of which English terms do I use here at all. I also have no use here for “gnosis” (the Greek cognate of *vjñā*), which is too heavily soteriological for the present context.

vivecana, *vivecyate*, *vivecyamāna*: I translate with “analyze” or “discriminate”. More importantly, I take care to distinguish imperfect or inchoative aspect, e.g., “is (being) subjected to (attempted) analysis”, usually indicated with the present participle, from simple or completed aspect, e.g., “is/was analyzed”, since in this context the question often turns precisely on the ontological status of the object, and thus simple or completed aspect tend to be misleading about the success of the analysis in even finding what it set out to investigate.

Finally, it is also worth briefly noting how I translate dialectical phrases like *atha*, *iti cet*, *nanu*, and so on. In general, my goal is to render literally but still remain readable. To this end, I have tried to avoid excessively long complex sentences with “if” and “then” clauses, especially those with nested such structures. Where the text uses “*yadi*” or “*cet*”, I do generally use “if”, since this is the only way to do it literally. However, “*atha*” I often translate as temporal (e.g., “then”) and *nanu* as adverbial (e.g., “surely”), so as to enable fewer dependent clauses and more full stops between ideas. The exact flow of argument is then fleshed out with comments in square brackets. The flat shorthand of “[Objection:]” and “[Answer:]” also would have worked, but I decided against it so as to better represent the small stylistic changes throughout the text. Taken together, I think this will help less experienced readers develop a more nuanced feel for how these words are used.

3.2 Notes on Outline Headings

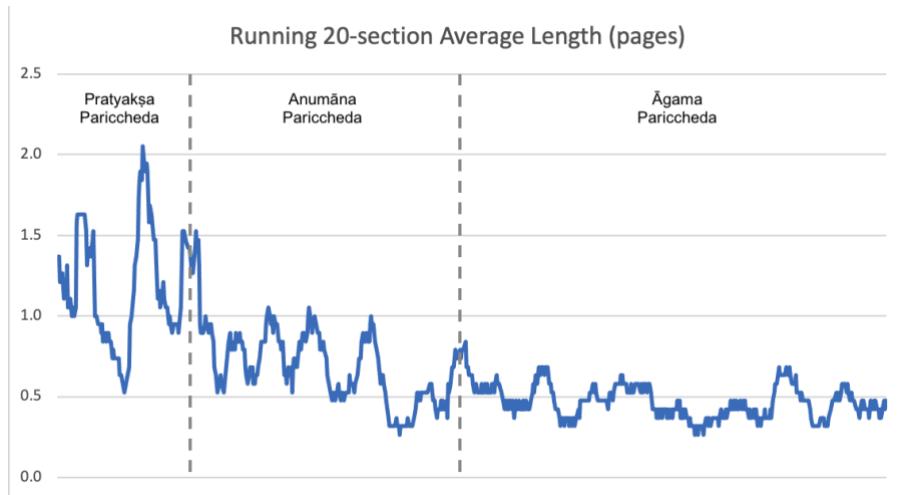
In the same way that I have written the English translation to serve as an aid for understanding the Sanskrit text, I have also included in the translation English-language section and subsection headings according how I understand the high-level internal structure of the text. Taken together, these headings constitute an outline of the passage, which I present as two tables in Appendix 10.1 and 10.2: a highest-level division into sections and subsections, and a finer-grained analysis of these subsections into arguments, respectively. While any such analytic breakdown will inevitably be arbitrary to some extent and almost certainly not exactly what a historical author intended,¹⁸⁷ I hope that my own outline can be more helpful for facilitating understanding than other available options, which I characterize as follows.

¹⁸⁷ On such arbitrariness, cp. Franco (1987b, 55).

On the one hand, in their respective brief summaries of NBhū 104–154, Joshi and Matilal only choose a few problems and theories to highlight, making no attempt to be exhaustive.¹⁸⁸ Meanwhile, Yogīndrānanda's edition has 32 heading labels,¹⁸⁹ among which there is no superstructure (i.e., overarching sections which undergo further subdivision) and no substructure apart from paragraph indentations, of which I count 128.¹⁹⁰ And finally, Yamakami's outline¹⁹¹ seems very exhaustive in that it has over 170 items and a maximum substructure depth of no less than 12 (e.g., “II.1.1.3.3.2.4.4.b.d.b. Refutation of the *svasam̄vedanamātra* theory”). In fact, however, these individual entries are not always very helpful, since they vary widely both in quality of insight and in feature type focused on. That is, some of Yamakami's outline items focus on an intertextual reference (e.g., “PVin I 96,8–17”, referring to the older Tibetan edition), some on an example case (e.g., “Net-like apparition (*keśonduka*)”), some on matters of polemical debate (e.g., “*anaikāntika* (inconclusive)”), some on a specific argument (e.g., “The eyes (cakṣus) do not cognize themselves”), and so on.

¹⁸⁸ See Joshi (1986, chapter 15), as well as Matilal (1977).

¹⁸⁹ Compared to other parts of this same edition, the number of headings for NBhū 104–154 is relatively small, given the number of pages it covers, which is to say that the average page-length of a given section marked by such a header is relatively large. Specifically, if we pay attention to the a 20-page-running-average length for each labeled section, we find this length to generally be about 0.75 pages for the Anumāna chapter and 0.50 pages for the Āgama chapter. By contrast, in the Pratyakṣa chapter this metric is closer to 1.25, with a greatest peak of about 2.0 centered on the first half of NBhū 104–154 (driven by particularly large sections “avayaviniṛāsaḥ” at pp. 104–109 and “vṛttyanupapattinirākaraṇam” at pp. 123–129). This can be represented in graphical form as follows:



Although these numbers could also theoretically be due to the nature of the text itself, based on my own experience with thinking through the arguments, it seems to me that we actually can use greater section length in Swami Yogīndrānda's edition as a proxy for his lesser engagement with that given part of the text. The Pratyakṣa chapter therefore stands in greatest need of further structural elaboration.

¹⁹⁰ Given the way of indenting metrical material in E_y, it is difficult to say where a “prose paragraph” starts and ends if these are also to include metrical material. The way I count paragraphs in such cases is to generally subsume metrical material as part of the preceding prose paragraph, often by way of a connecting phrase like “yataḥ —” or “tad uktam —” or “yad āha —”. I also follow the same principle in my own edition, but whether material following verses is included as part of the preceding paragraph or made into the start of its own new one is based entirely on the flow of the argument as I understand it.

¹⁹¹ This outline is available in English online at <http://www.cc.kyoto-su.ac.jp/~yamakami/synopsis.html>. I also reproduce a cleaned-up version of it in Appendix 9.

The new outline below breaks NBhū 104–154 down into 4 sections, each with some number of subsections (e.g., §1.1, §1.2, etc.; §1 has two subsections, §2 has three, §3 has four, and §4 has two; thus 11 in total). In turn, each of these subsections is broken down into some number of final “sub-subsections”, each labeled with a “Main Point” in the form of a claim. Each such argument sub-subsection, of which there are 48 in total, corresponds to a certain number of paragraphs in both the edition and translation, of which I present 262 total. Most contain 3–6 paragraphs, although the number ranges from 1 to 18. It can thus be seen that the new edition uses twice as many paragraph breaks as in the 1968 edition and 50% more section breaks. These sections are in turn designated by headings that consistently address how each section (or subsection or sub-subsection) contributes toward the overall argument. In the outline table, these same “main point” descriptions are also accompanied by keywords as another way of obtaining an overview of the action.

3.3 Annotated Translation of NBhū 104–154

For electronic versions that can be more easily manipulated, see Appendix 8D.

§1 Buddhist Pūrvapakṣa A: Anti-Realism

§1.1 The Composite Whole (*avayavin*)

Composite wholes appearing as gross and unitary can't exist as such.

§

The composite whole's properties conflict with those of its parts.

104,6 [One might object:]¹⁹² And yet surely, [non-yogic] perception is undoubtedly also accepted as apprehending objects which are not gross, like pleasure.¹⁹³ [That's] true. Nevertheless, some [namely, Buddhist Vijñānavādins] do not accept that what is apprehended (*grāhya*) [in perception] is something different from cognition. [So] it is in order to reject that [idea] that the following is taught: It [non-yogic perception] does apprehend gross objects, but since a cognition's form (*jñānākāra*) does not possess grossness, the gross thing that is apprehended (*sthūlam grāhyam*) is not of the nature of cognition.¹⁹⁴

+104,7 And surely, [the objection might continue,] a gross thing different from cognition simply cannot exist at all. To explain:¹⁹⁵ It's just not the case that there exists a unitary composite whole in that way (***tathāsti***) [i.e., as gross]¹⁹⁶ because [in that case] it would have to

¹⁹² I.e., object to the characterization of non-yogic perception as "that which apprehends gross objects" (*sthūlārthagrāhakam*).

¹⁹³ The full argument here is preserved only in V; P loses an important part through an eyeskip from *sthūlasyā* to *sthūlasyā*. Thus, Yogīndrānanda's (1968) interpretation characterizing also the first objection here as being exclusively Buddhist (104n2–3) should be revised, as e.g. a Naiyāyika could equally raise the same point.

¹⁹⁴ In this nominal sentence, I take *jñānātmaka* as the predicate, since it is what is at stake in the discussion, and since this agrees with the standard predicate-subject word-order of Sanskrit nominal sentences; that the middle word *sthūlam* belongs to the subject, as I've chosen here, and not to the predicate, is more in line with grossness being a phenomenological given here, i.e., a description of what both sides agree seems to be the case. By contrast, Yamakami (1999) chooses "*jñānātmakam sthūlam*" as the subject: "知識を本質とする組大なものが" (159).

¹⁹⁵ For the most direct source of this series of arguments (*na tāvad eko 'vayavī tathāsti [...] rakta eva drśyeta*), see **≡ PVin 1, pp. 34,10–35,3 and ~ p. 35,3–6 ↗**. That is, most of the arguments are reproduced verbatim or nearly so, but notably in the final argument about color (*rāga*), the NBhū presentation diverges more sharply. The same arguments are also found at **~ PV 2.84–85 ↗**, which is commented on at **÷ PVA 93,7–14 ↗**. These arguments, however, also go back much further. Cp. e.g. the "hand and foot" examples in Āryadeva's Śatasāstra, in the third chapter on refuting unity (*ekatva*) (Tucci 1929, 37–43).

¹⁹⁶ There are several reasons to prefer here the manuscripts' reading of an independent clause ending in *tathāsti* over E's emended nominal sentence "*na tāvad eko 'vayavī*" followed by *tathā sati* in the dependent ablative clause. I will go into unusual detail here as a representative example of how I apply the "genetic principle" in my editing of the text.

1) Besides the agreement of the primary manuscript evidence, secondary evidence includes the PVin 1 source, which reads "*nāpi sthūla eko viśayas tathāvabhāsi*" (2007, 34), using *tathā* in the main clause to

follow that when, say, [taking the whole to be a human body] its hand should move about, then it all [i.e., the whole body] (*sarva*)¹⁹⁷ would [also] move. Or else, if that [whole body] does not move [when the hand is moving], then [there is again no unitary composite whole] because that would amount to proof that the moving [part] and non-moving [whole] are separate, like a cloth and water.¹⁹⁸

+104,10 [Continuing the objection: There is] also [no composite whole] because, if there is covering of the one [part], this would result in covering of it all (*sarvam*), because there is no difference.¹⁹⁹ Alternatively, on account of there being (*iti*) no covering of a certain [other] part, it [the whole] ought to appear as complete (*avikala*).²⁰⁰ Even if one were to allow that there could be covering of [only certain] parts and not [necessarily thereby] of the whole, then also in the case of half [of all the parts] being covered, the consequence would be that one sees it [the whole] just as before²⁰¹ because of it [i.e., the whole itself] being uncovered.

emphasize the mode of phenomenal appearance: “Nor is it the case that it is [really] a gross [and] singular object appearing as such.” Cp. also a similar statement with *asti*, *sthūla*, and *prativbhās* at the end of the *pūrvapakṣa* argument about the composite whole: “*nāsty eko 'vayavī yaḥ sthūlapratibhāsaviṣayaḥ syāt*.”

2) Less crucially: The intelligent P1 scribe glosses this *tathā* with *sthūlarūpeṇa* (f. 23r).

3) Most importantly, *tathāsti* seems to be the harder reading, such that intelligent scribes trying to produce an easier text would not have corrected *tathā sati* to it. By contrast, E’s new reading of *tathā sati* seems initially more appealing for the way it focuses the discussion simply on the property of oneness (*ekatva*), and since the phrase *tathā sati* is frequently found in just such a *prasaṅga* context. However, it comes at the cost of important complexity, in that the properties of grossness (*sthūla*), which occasions the discussion, and existence (*astitva*), which is soon clarified as the target property (*sādhya*) of the Buddhist inference, are thereby left out.

¹⁹⁷ Dharmottara seems to make clear that he understands this *sarva* as meaning the “whole [body]” (*lus thams cad*) as opposed to “all [parts]” (where for “parts” one would expect *cha shas*) (see Tibetan PVinT, f. 143B, l. 4, accessed on the Asian Classics website <https://asianclassics.org/library/downloads/>, record TD04229, under “11 tshad ma” and then “188 dze”). However, compare footnote 257 below for a different stage of the argumentation where the contrast is indeed between one part and “all” (*sarva*) other parts taken individually.

¹⁹⁸ Dharmakīrti’s commentators Dharmottara and Jñānaśrībhadra appear to understand the phrase *calā-calyoh pṛthaksiddhiprasāṅgāt, vastrodakavat* as supporting the argument that two things are distinct insofar as they possess contrary characteristics — here, a stationary cloth versus water moving through it (TD04229 f. 144A; TD04228 f. 198B). Bhāsarvajña, meanwhile, far from explicitly confirming that he understands the example to involve moving water, instead repurposes it, namely as a cloth simply submerged in water, for the sake of his own argument (1968, 111,10ff.) that some properties, like contact (of water with parts of a cloth) or motion (of a person’s limbs) can be falsely understood to transfer from part to whole.

¹⁹⁹ This vague phrasing on Dharmakīrti’s part leaves room for doubt about what kind of difference is meant. Vetter (1966) understands “[...] denn es besteht kein Unterschied (innerhalb des Ganzen)” (85), by which he seems to mean a difference among parts rather than between part and whole, which in turn seems to require understanding *sarva* as “all parts” (cp. above footnote 197). As is, with no qualification, the opponent’s argument effectively overemphasizes the connection between part and whole to the point of denying any relevant difference at all.

²⁰⁰ The clause “*na kasyacid āvaraṇam iti*” here apparently means the same as “*kasyacid avayavasya anāvaraṇāt*”, with slightly unusual negation syntax. Read also [*sarvam*] *avikalām dṛsyeta*, with *avikalā* as an adjective (cp. footnote 197 above for the singular neuter *sarva*).

²⁰¹ That is, as complete, as just claimed for the case where one part is covered, rather than as half-covered, as

Also on the view²⁰² that one sees the whole by way of seeing its parts (*avayavadarśana*), it would result that one would not apprehend the whole at all, since it is impossible to see all of the parts [at any one time]. [Or] if apprehending the whole results from seeing [just] a few parts, then there would be the unwanted result that, also when one see [only] two or three (*dvitṛ*) parts, one would apprehend it [i.e., the whole] as being [gross and unitary] like that (*tathābhūta*)²⁰³.

+104,15 And if the whole, [by existing] in one part that is [dyed] red (*rakta*)²⁰⁴, should [itself thereby] be red, then it ought to appear as decidedly (*eva*) red also where it is located in the other parts.²⁰⁵ If this is not so, then even if all the parts were to be red, the whole ought to be apprehended as decidedly not red.

§

The composite whole can be neither located physically nor found analytically.

+104,16 Furthermore, the composite whole cannot exist [also] because there is no possibility (*anupapatti*) of [it and the parts] residing (*vṛtti*) [in relation to each other].²⁰⁶ To explain: People typically speak of a horn on a cow; they don't usually speak of a cow in a horn.²⁰⁷ Among these [two options] (*tatra*),²⁰⁸ if [as people typically say] the parts are located in the whole, then the whole, which cannot be divided (*akhaṇḍa*), would be constrained (*avaruddha*) by one single part, and so where would the other parts be located? For indeed,

might be expected.

²⁰² The previous point was concerned with what it takes for the whole to end up *not* being seen. This next one is concerned with the corollary positive question: How one *does* manage to see the whole.

²⁰³ Cp. PVin I (2007): *katipayāvayavapratiptattau darśane 'pāvayavadarśane 'pi tathā sthūlasya darśanam syāt* (35). The phrase *tathābhūta*, “being like that” appears to mean “as a unitary, gross whole”, rather than as the few incomplete parts actually seen; cp. also footnote 196 above on the meaning of *tathā*.

²⁰⁴ The idea of “redness” here is specifically that of “being reddened”. In fact, we might be better off reading *rakta* not as “red” at all, but only as “dyed” or “colored”. In any case, this idea of being colored red with dye will eventually be contrasted with an ontologically more direct kind of redness, namely in the sense of a particular universal (*jātvīśeṣa*) inhering in an instance of color (*rūpa*), i.e., a quality (*guṇa*). The former is said to be a non-pervasive or partially-residing (*pradeśavṛtti*) property which works by way of conjunction (*samyoga*), while the latter resides pervasively (*vyāpyavṛtti*) through inherence (*samavāya*). The former applies only to wholes, while the latter applies only to atoms. See also footnote 268 below.

²⁰⁵ Note that, although the structuring of the following argument, on *vṛtyanupapatti*, relies on carefully distinguishing the Nyāya-Vaiśeṣika view of the whole inhering in the parts from the more intuitive, “worldly” one that the parts exist in the whole, here the former, Nyāya-Vaiśeṣika view is quietly taken for granted. The disconnect is explained by the two passages having different intertextual origins.

²⁰⁶ See [= NS 4.2.6 →] through [~ 4.2.10 →] for this *pūrvapakṣa*. Ruben (1928) identifies it as a Madhyamaka *pūrvapakṣa*, and more specifically as deriving from the Lāṅkāvatārasūtra (216-217n284). The same goes for the following about *buddhiviveca*, from NS 4.2.26. Grohma (1971), by slight contrast, attributes the first ultimately to Āryadeva's Śataśāstra (44ff.)

²⁰⁷ See [~ PV 3.150 →].

²⁰⁸ Read *tatra* with V, or P2's *tat* (with *avagraha*) in the same function. The latter appears to be a correction of an erroneous “*tata*” in the P exemplar, which P1 chose to leave as is. E's emendation to an ostensibly causal “*tataḥ*” makes no sense in this context.

several corporeal things cannot [simultaneously] reside in a single place (*ekadeśavṛtti*), and yet, besides the parts [themselves] (*avayavavyatirekeṇa*), the whole doesn't have a different place (*pradeśabhedā*) by means of which the parts would not [all] end up in a single place. And if one were to allow that (*abhyupagata*) substance can reside in a single substance, then this would also be contrary to reason (*yuktibādhā*).²⁰⁹

+105,6

Then there is the position that the composite whole is located in its parts. On this view as well, if it is located entirely in just a single part, then the other parts will fail to be a substratum for it (*tadanāśraya*). Moreover, if a substance had [only] a single thing for its substratum, then it would perpetually arise (*sadotpatti*) and never be destroyed.²¹⁰ [One might] then [claim]: it [the whole] is located [only] partially (*ekadeśena*) in a [given] single [component] part (*avayava*). [To this we would say:] No [this is not correct], because, being indivisible, it [the whole] cannot have parts (*deśa*) besides its [component] parts (*avayavas*). Alternatively, if one were to allow this, then it [the whole] would [have to] reside also in those parts (*deśas*) by means of other parts (*deśas*), and so there would be an infinite regress.

106,3

There is also no composite whole for the following reason: because when one mentally analyzes it (*buddhyā vivecanam*), it is not apprehended.²¹¹ For indeed, when one analyzes the parts [e.g., of a cloth] with thoughts like "This here is a thread, that is a thread" [and so on], the whole does not appear as [something] different from them. And through this [same reasoning] (*etenā*) so too is defeated the view that the whole is a property of the parts.²¹² Therefore, there is no unitary whole which the object of a mental appearance of something gross could be.

§1.2 The Atom (*paramāṇu*)

Atoms can neither explain apparent wholes nor exist at all.

²⁰⁹ In Vaiśeṣika ontology, it is argued that, in contrast to entities like qualities (*gunas*) and motions (*karmas*) which can reside (specifically by inherence) in a single substance (*ekadravyavṛtti*), substances themselves (*dravyas*) cannot do so and instead must reside (i.e., inhere) either in multiple substances (*anekadravyavṛtti*), as does the whole (*avayavin*), or else in no substances at all (*adravyavṛtti*), as do things like atoms (*paramāṇus*), ether (*ākāśa*), and the self (*ātman*). Hence, if parts were to inhere in the whole, as suggested here, then each part would inhere in only a single substance, which would violate this Vaiśeṣika tenet (see also below for further justification). See VS §1.2 on the classification of the major *padārthas*.

²¹⁰ This is the follow-up justification for the previous point about the impossibility of substance residing in a single substance (*dravyasya ekadravyavṛttitvam*). Namely, the problem would be that such an inhering substance would perpetually arise because it would not need to wait for conjunction of its parts to bring it about, and it would never be destroyed because it would not have parts that could ever undergo disjunction.

²¹¹ See ~ NS 4.2.26 ↗. Cp. footnote 206 above.

²¹² This view is perhaps most closely associated with Sāṃkhya, but it also is true of Nyāya-Vaiśeṣika, in that the Buddhist has not said "mere property" (*dharma-mātra*), i.e., property as opposed to substance. D. N. Shastri (1976) explains: "[T]he word property (*dharma*) in this context does not mean only qualities, but it is used in a wider sense and includes all the five kinds of properties, (i.e., substance, quality, movement, the universal and viśeṣa) which subsist in their substrata by inherent relation" (139).

§

The atom can't explain the whole's properties even when aggregated.

+106,6

Nor is the object of a mental appearance of something gross nothing more than an aggregate of atoms, since that [aggregate], insofar as it is something over and above the atoms, has [already] been disproved through our reasoning about [the residence problem of] the whole. Moreover, the atoms are not individually gross, so how could they be even if taken together? For indeed, it's not the case that, when individually non-red things are in a state of being collected together (*samudāyāvasthāyām*), they are apprehended as having a red form; like sunrays appearing as water [in a mirage], such would be a mistaken apprehension.

§

A partless atom contradicts conjunction and all-pervasive ether.

106,11

Then the following is said [in response to the Buddhist challenge]: If the apprehended thing distinct from cognition cannot be gross, then the apprehended thing must simply be subtle.²¹³ That, too, is incorrect, since [as stated by Vasubandhu]²¹⁴: "Since it joins simultaneously with a set of six [other atoms], an atom has six parts (*amśa*) [rather than being partless] / [Alternatively], if [instead] the six [connected atoms] are in the same (samāna) place,²¹⁵ then the overall thing (*piṇḍa*)²¹⁶ would have the measure of [only] an atom.²¹⁷ //"

(-107,1)

Moreover, whatever is corporeal [including the atom] would also necessarily have to have ten parts, according to the division of the directions (*dikpravibhāga*).²¹⁸ And also, [the atom is implausible because] it's not possible to speak of the existence of something which is not [ever] apprehended as itself (*svarūpena*).²¹⁹ And furthermore [as argued in the Nyāyasū-

²¹³ Note that, although the phrase *jñānād arthāntaram* is not repeated, the atoms implicitly mentioned here are undoubtedly being considered as distinct from cognition; the relevant contrast is thus only *sthūla* vs. *sūkṣma*.

²¹⁴ See ≈ Viṁś 12 ↗. See also the related discussion at ÷ NS 4.2.24 ↗ ("*saṁyogopapattes ca*") on the connective abilities of atoms (as cited by Yogīndrānanda 1968, 106n3), including especially ÷ NV 484,19ff. ↗

²¹⁵ The V reading with *samāna* instead of *eka* is probably an older one; Silk (2018) records it in the form of a non-canonical but "plainly [...] earlier" (iii) Tibetan translation of Viṁś. in Dunhuang source PT 125, which reads "*mnyam ba'i yul ba*", against which the critical Tanjur Vṛtti has *drug po dag kyang* [...] *go gcig* (where the *api* is quite clear) and the critical Tanjur Kārikā has *drug po dag* [...] *go gcig* (less clear for this purpose). Of course, this does not necessarily mean that it was Bhāsarvajña's own reading, and indeed, he himself gives the phrase again later with *eka* at 131,6. However, since that later restatement (cp. footnote 429 below) is missing the *api* (thereby breaking the meter), it appears to be a paraphrase. Thus, I choose the less consistent reading here as the more difficult one. The meaning is not affected.

²¹⁶ Silk (2018) translates *piṇḍa* as "cluster" (e.g., p. 15).

²¹⁷ That is to say, all connected things would simply overlap, and gross measure would be impossible.

²¹⁸ Cp. ~ Viṁś 12 and Vṛtti thereon (p. 93) ↗, as well as the beginning of ÷ PDhs §6.3 (p. 66,20ff.) ↗.

²¹⁹ Cp. the "*ānupalambhika*" mentioned in the NBh (ad 4.2.18) who believes (*manyamāna*) that "*sarvam nāsti*". On the identity thereof, R. Bhattacharya (2009) cautiously concludes that this NS opponent is in fact

tra]²²⁰, “because there is penetration [of the atom] by ether,” “or else (*vā*) ether is not all-pervasive,” the [partless] atom does not exist.²²¹ Therefore, an external apprehended thing is impossible.²²²

§2 Buddhist *Pūrvapakṣa* B: Cognition Non-Dualism

§2.1 Invariable Co-apprehension (*sahopalamabhaniyama*)

“Invariable co-apprehension” leaves a separate object unestablished.

- +107,3 Thus it is taught [by Dharmakīrti]²²³: “There is no other thing to be experienced by thought, nor further [resulting] experience for it. / Given the [ultimate] lack of apprehender or apprehended, it’s just [thought] itself that shines forth by itself. //” The meaning of this [latter point], taken as a whole (*samudāyārtha*), is that, given the absence of [any] ap-
- (-107,6)

a metaphysical idealist (such as a Yogācārin), since it cannot be a Mādhyamika (due to the latter’s avoidance of such annihilationist views) nor a materialist (since the context is not one of morally reprehensible rejection of ethically binding views, e.g., about the Vedas or future lives) (230–31).

²²⁰ See ≡ NS 4.2.18–19 ↗, both *pūrvapakṣasūtras*.

²²¹ One might note that a similar argument could be made on the basis of the Self (*ātman*), which is also all-pervasive. However since the Self is not accepted by the Buddhist, ether is a better choice, dialectically speaking.

²²² This final sentence summarizes both §1.1 and §1.2, which disprove the external gross whole and the external subtle atom, respectively.

²²³ See = PVin 1.38 ↗ and ~ PV 3.327 ↗. The overall argumentation is also heavily dependent on the discussion at PV 3.387ff. (*sakṛt saṃvedyamānasya...*).

For the verse itself, Kellner (2010) provides a very helpful account (196–98) of the variant readings of the earlier version of this verse in PV. To put a finer point on it, the verse underwent the following transformation, from neuter in PV (for *jñāna*) to feminine in PVin (for *buddhi*), plus a new *pāda* c:

*nānyo 'nubhāvyas tenāsti tasya nānubhavo 'parah /
tasyāpi tulyacodyatvāt tat svayam tat prakāśate //* (PV 3.330)
*nānyo 'nubhāvya buddhyāsti tasyā nānubhavo 'parah /
grāhyagrāhakavaidhuryāt svayam saiva prakāśate //* (PVin 1.38)

Understanding of this transformation was historically obscured by contamination in the scant manuscript traditions of PV and PVA, where neuter (PV) and feminine (PVin) readings were mixed in one verse. In turn, these mixed readings were popularized in Sankryayana’s influential editions, which relied heavily on particular witnesses (namely, PV-H, Pr-A’, and Pr-B). By contrast, the original PV neuter *pāda* d, for example, is directly traceable in Sanskrit sources M-A and PV-Zh as well as in Tibetan source R-t (I utilize Kellner’s abbreviations here).

As Steinkellner states (2007), it was PVin, not PV, “which Tibetan scholars considered Dharmakīrti’s major work until around the beginning of the 13th century” (ix). Bhāsarvajña, understood to have been writing in Kashmir in the mid-10th century, also seems to have preferred working with PVin where possible.

prehender or apprehended distinct from itself, it is [just] an awareness with both of those forms that, all by itself, illuminates its own nature, similar to light.

+107,7
(-108,1) To elaborate [Dharmakīrti says]²²⁴: Given that they are invariably apprehended together, there is no difference between blue and the cognition thereof. / For even though they appear as distinct, the [visible] form of blue (*rūpam nīlasya*) is not a completely different thing (*arthāntaram eva*) from the experience [thereof],²²⁵ given that they are invariably apprehended together, like when, for example, one apprehends two moons. For indeed, there cannot be non-apprehension of one of them and yet apprehension of the other, and this [fact] (*caitat*)²²⁶ would not be possible if they were of separate natures, because [besides being of the same nature] there is no essential connection [between them] that is the cause [for their invariable co-apprehension] (*pratibandhakāraṇa*)."

§2.2 Reflexive Awareness (*svasamvedana*)

Practical behavior toward objects is not possible if cognition is not self-aware.

108,4 Then [Dharmakīrti says that one might suggest]²²⁷: One becomes aware of an object-cognition [only] later, by means of another cognition. That is also untenable [Dharmakīrti says], for the following reason: Object-awareness (*arthadrṣṭi*) is not established (*pravśidh*) for one whose cognition is [itself] not directly perceived (*apratyakṣopalambhasya*). /²²⁸ For

²²⁴ See [= PVin 1, pp. 39,13–40,4 (incl. k. 1.54ab) ↗]. The complex topic of *sahopalambhaniyama* is explored best by Iwata (1991). The simplest summary of significance of the argument is that it is the starting point for the following chain of assertions: subject and object are invariably apprehended together (*sahopalambhaniyama*); the object is not separate (*abheda*) from cognition; the cognition has both subjective and objective forms (*dvyākāratā*); object-apprehension is cognition knowing itself (*svasamvedana*); and no ontologically separate object exists (*vijñaptimātratā*) (245). As Iwata's detailed study shows, however, the various Buddhist authors differed considerably on numerous subtle details.

²²⁵ All Sanskrit sources agree on the reading *eva rūpam* rather than E's *evamrūpam*: the Tattvabodhavidhāyinī of Abhayadevasūri (noticed by Steinkellner 2007, 206), the new Sanskrit edition of PVin I, and all NBhū mss. It's also interesting to note that the Tibetan translation of the sentence in PVin — "sngon po ni [...] gzhan pa'i rang bzhin nyid ma yin" — seems to have influenced the modern understanding of *rūpa* here as "nature": "das Blaue [...] ist [...] seinem Wesen nach kein [...] verschiedenes Ding" (Vetter 1966, 99); "das Blaue hat kein [...] verschiedenes Ding zum Wesen" (Iwata 1991, I,110); "the nature (*rūpam*) of blue is not at all a different thing from the experience of blue" (Kellner 2016, 21). Given that the two things we are supposedly aware of in perception do not directly include the "nature" (≈ *svabhāva*) of the object, I opt instead for the simpler "[visible] form"; see also Yamakami (1999): 青の形相は... (163). However, compare also Bhāsarvajñā's gloss of *nīlopalambha* as *nīlasvabhāvopalambha* below at 108,15.

²²⁶ I.e., the fact of perfect correlation.

²²⁷ See [= PVin 1, pp. 40,11–41,4 (incl. k. 1.54cd) ↗].

²²⁸ This sentence cannot really be translated in a straightforward manner here, since Bhāsarvajñā will consider many different interpretations of the individual words later on (see below at 133,21). Nevertheless, I try here to render it as I think Dharmakīrti intended, which I think is also how Bhāsarvajñā ultimately understands it.

Concerning the translation of the compound "*apratyakṣopalambhasya*" as a *bahuṛīhi* for Dharmakīrti, cp., e.g., "Für den, (nach dessen Ansicht) die Wahrnehmung" (Vetter 1966, 106n61) and "[F]or someone lacking direct perception [of something]" (Kajiyama 1998, 51). Kellner (2011) also explicitly justifies the same

indeed, it's not the case that one is aware of an object on account of the existence (*sattā*) of the object, but rather [one does so] on account of the existence of the cognition thereof. And that [existence of the cognition], insofar as it is not [itself] established by a means of valid knowledge (*apramāṇikā*)²²⁹, does not properly conduce to practical behaviors presupposing existence (*sattā nibandhanān vyavahārān*).²³⁰ [But] if that [existence of the apprehension] cannot be clearly established,²³¹ then neither is the object assured, and this would be the end of practical behavior concerning real things (*sadvyavahāra*).²³² For indeed, even if something does really exist, if one is not aware of it, then it cannot be dealt with (*vyavahṛ*) as real.

108,10

Then [one might claim]: One becomes aware of the object-cognition through another cognition,²³³ How then could this [latter] cognition, with its own existence not assured and [thus itself] as if non-existent (*asatkalpa*), establish the other [i.e., first] cognition? And in that search for [yet] another cognition [to establish that second one], there would be an infinite regress, and so, objects would not be established for anyone (*kasyacit*), with the result that everyone (*jagat*) would be blind and mute.²³⁴ [Or] if one allows for an endpoint (*niṣṭhā*)

with reference to Dharmakīrti's own paraphrase immediately after in PVin (*nānupalabhamānaḥ kasyacit saṃvedanam vedayate nāma kiñcit*), "clearly formulated in terms of a person," while also mentioning the possibility of construing a genitive absolute on the basis of a clear conditional particle (*na*) in the Tibetan (420n28); the connotation of "disregard" (*anādara*) expected for use of the Sanskrit genitive absolutes would ostensibly be understood in the following way: "It cannot be that, [despite] a cognition [itself] not being directly perceived, the object-awareness is [nevertheless] established". For more on the origin of the latter construction, see the excellent study by Ruppel (2012). For his part, Bhāsarvajña is unfortunately not very explicit about this particular detail in his own discussion, but he may need the *bahuvrīhi* (or absolute) reading in order for one of his later arguments to work; see footnote 451 below.

²²⁹ The word *apramāṇikā* is a perfectly valid form, clearly attested by the NBhū manuscript witnesses and also elsewhere in this type of philosophical literature, including later in PVin itself (2007, 96). Neither its absence in standard lexicographical resources — probably a symptom of their relative neglect of this genre — nor the existence of alternative valid forms — such as the *aprāmāṇikā* edited at this place in PVin (2007, 41) or the *aprāmāṇikī* edited here by E — necessitate emending Bhāsarvajña's own choice here.

²³⁰ The P mss. read *tad°* before *vyavahārān*, which the P1 scribe attempts to explicate with the gloss "*mayā viśayo jñātāḥ*", but the addition does not seem genuine. Cp. the PVin edition (2007, 41) and also Bhāsarvajña's repetition of the phrase at 135,7, where the NBhū mss. agree on the absence of *tad°*.

²³¹ Namely, by being directly perceptible.

²³² Cp. Dharmakīrti's own wording in PVin, "*astamgataṁ viśvam syāt*" (2007, 41).

²³³ V's repetition of "*saṃvedanam anyena saṃvedanena saṃvedyate tad api*", not edited here, also could work for emphasizing the *anavasthā* argument. Such word-for-word repetition in philosophical literature is indeed sometimes attested, as in NBh ad NS 2.1.17: "*anavasthām āha: «tasyāpy anyena, tasyāpy anyena» iti*" (1997, 64). However, this particular case I judge to be a scribe's accidental repetition.

Note too that, despite the loosely similar beginnings "*athārthaḥ saṃvedanam anyena saṃvedanena saṃvedyate*" (NBhū) and "*upalabhyate saṃvedanam anyeneti cet*" (PVin), Bhāsarvajña does not follow the PVin presentation of the argument closely at this particular point. Just below, however, ≈ PVin 1, pp. 41,12–42,1 → (ity andhamūkam [...] tatsiddhaḥ sahopalambhaḥ) represents much more verbatim reuse of the PVin text.

²³⁴ One might expect "deaf" (*badhira*) rather than "mute" (*mūka*), if the point were only about taking in information from the outside world. Instead, with "mute" — and assuming that the terms are cleanly distinguished in this way, which they may not be — the point seems to also concern conveying such information

somewhere [in the sequence of cognitions], then that [foundational cognition] (*sa*)²³⁵ apprehends itself by itself and also (*ca*)²³⁶ at the same time the form of the object, and thus one could simply let those [cognitions] other than that [foundational] one be that way, too, since there's no basis for any distinction [among them]. Thus (*tat*) it is established that apprehension [of the two] occurs [only] together, and on the basis of [them] being apprehended together, one can say that (*iti*) there is no [real] difference between a thing and the cognition thereof.

§2.3 Cognition as Possessing Forms (*sākāravāda*)

Mind-internal factors suffice to explain objects.

§

Even without external objects, cognitive forms can explain inter-object specificity.

- +108,15 And in this way, saying that (...*iti*) “apprehension of blue” means “apprehension of blue nature” (*nīlopalambha iti nīlasvabhāvopalambha*) means the following: that due to beginningless mental traces (*vāsanās*), it is just awareness [itself] that is apprehended as arising with various forms, like awareness in a dream. And also [as Dharmakīrti says]²³⁷: “If awareness has the form of blue etc., then what basis is there for an external [blue] object? / [Alternatively] if awareness does not have the form of blue etc., then what basis is there for
 (-108,20) an external [blue] object? //”²³⁸ [That is to say] if this form of blue etc. appears as a property of just the awareness itself, [and as] having that same [cognitive] nature, then there is no warrant whatsoever for thinking that there is an object like e.g. blue that is distinct from that [awareness].

- +108,21 Then [perhaps] this [which appears] is not accepted as a form of cognition. Even so, how through linguistic behavior (*vyavahāra*).

²³⁵ The *sa*, restored here on the basis of the PVin edition, and without which the sentence is unnecessarily difficult to understand, corresponds with an implied noun *upalambha*, mentioned soon hereafter, despite the recent mention also of *śamvedana*. The same masculine gender is also reflected in the following pronoun *anye*.

²³⁶ The conjectured *ca* here, on the basis of the PVA text, is motivated by *yugapad*, which, for the same reasons that Bhāsarvajña himself notes elsewhere about the word *saha*, is hard to construe without an explicit second thing. However, it is also possible that the NBhū mss. have the correct reading, i.e., that this *ca* is not original to the PVA, and that what is meant is that the cognition all at once, and all by itself, apprehends itself as having the form of the object (i.e., with *vīṣayākāra* as a *bahuvrīhi* modifying *ātman* rather than as a *tatpuruṣa*). I'm hesitant to emend the PVA without more evidence from its side.

²³⁷ See ~ PV 3.433 →. This first version of the verse reported by Bhāsarvajña has identical second and fourth *pādas* and nearly identical first and third *pādas*, the latter being at best graphically distinguished by a single *avagraha* and at worst interpreted (as here by the scribe of V) as a repetition in need of correction. The second version reported by Bhāsarvajña, following shortly below, has distinct *pādas* b and d (*bāhyo 'rthaḥ kimpramāṇakah* and *sa tasyānubhavaḥ katham*, respectively) and thereby corresponds to Sankṛtyayana's editions of PV, PVA, and PVV.

²³⁸ The second part means: If awareness has a form different than the external object or no form at all, then in neither case does that external object help account for why awareness has that form.

could the cognition which [then] has either no form or a different form establish [the external existence of] the blue and so on? For indeed, one cannot prove one thing on the basis of another without an essential connection, because that would be absurd.²³⁹ On the other hand (*tu*), if the essential connection is that it [e.g. the blue form in cognition] arises from that [external blue object], then things such as the visual faculty (*nayana*) and the unseen force (*adṛṣṭa*)²⁴⁰ [which similarly contribute to the arising of the cognition] ought to also be its objects, because in the absence of its [i.e. the external object's] projecting (*arpakatva*) its own form [into awareness],²⁴¹ then one also could not establish its productiveness which distinguishes [the external object from other causes of the cognition] (*janakatvavīśeṣa*). How [then], despite the absence of [such] distinctive productiveness, could one speak of only that [one] thing (*tasyaiva*) functioning as the direct object [of the action of knowing] (*karmakāraka*)²⁴² or of it producing cognition featuring itself as object? As for those who accept that two consistently simultaneous things (*samānakālāyor eva*) have the respective states (°*bhāva*) of appprehender and apprehended on the basis of an essential connection [between them] consisting in their [common] dependence on a single causal complex,²⁴³ their view will still have the problem that the visual faculty, the unseen force, and so on, which are [in fact all equally] dependent on the same (*eka*) causal complex as that [object is], would [themselves also] be apprehended, since there would be nothing distinguishing them [from the object in this way].

109,1

Then [one might suggest]: The distinguishing feature (*vīśeṣa*) is having the form of the object. Even then, what basis would there be for the external object? It is indeed a lone blue form that is apprehended here (*ayam*), and that is accepted as being of the nature of cognition; there does not in turn appear another form accompanying it. How [then] could this non-appearing [supposed second form] remain standing (*avatiṣṭheta*) as something external? Nor, given how no pervasion relation (*vyāpti*) has been established [between the two forms], can it [the supposed external form] possibly be knowable through inference.

²³⁹ On the translation of *atiprasaṅga* as “absurd”, see the argument of Franco (1984, 137n33).

²⁴⁰ The idea of *adṛṣṭa* as what accounts for various subtle phenomena, from magnetism to moral desert, overlaps in complex ways with the related ideas of *dharma* and *karma*.

²⁴¹ On the relation between being able to project a form into awareness (*jñānākārārpakatva*) and being what is apprehended (*grāhyatva*), cp. PV 3.247 = PVin 1.20: “bhinnakālaṁ kathām grāhyam iti ced grāhyatāṁ viduh / hetutvam eva yuktijñā jñānākārārpakāṇakṣamam //”

See also Dignāga’s Ālambanaparīkṣā k. 7b (“Śaktyarpaṇāt kramena vā”), the commentary on which Frauwallner (1930) translates as “Das Bild des Objektes erzeugt eine in der Erkenntnis liegende Kraft, welche eine ihm ähnliche Wirkung hervorbringt” (183).

²⁴² Read this *karmakāraka* as a *karmadhāraya*, and not as a *dvandva* as in, e.g., Mūlamadhyamakārikā 8.12, where the “doer” (*kāraka* = *kartṛ*) is contrasted with “that which is done/acted upon” (*karma*).

This section alludes to Bhāsarvajña’s earlier discussion of *ātmakhyāti* (NBhū 29,21ff.), i.e., error explained as cognition apprehending itself, which is explicitly associated with Buddhist idealism, and in which *karmakārakatva* is given a prominent role. According to Bhāsarvajña, the problem with this view of error (and with the view of perception it presupposes) is that it fails to provide a properly distinguishing characteristic (*vīśeṣa*) — namely, a “particular [and particularizing] productiveness” (*janakatvavīśeṣa*) — on the part of a given factor that could account for it and only it, rather than the other factors, playing the role of the object (*karmakāraka*) in cognition, such that the correctness or falsity of the cognition could be evaluated.

²⁴³ See [~ PVA 416,1 ↵].

+109,4 Meanwhile (*tu*), others read [the verse]²⁴⁴ as follows: “If awareness has the form of blue etc., then what proof is there for the external object? / If awareness does not have the form of blue etc., then how could the experience (*so 'nubhavaḥ*) be of that [supposed external blue object] (*tasya*)? //” Also in this case, the main idea is as follows: If the cognition has no form, then the [correct] allocation [of cognitions] to respective objects (*karma*) is not established,²⁴⁵ whereas (*ca*) if the cognition does have a form, then there is no proof for the external object.

§

Even without external objects, mental traces can explain subject-object specificity.

+109,8 One might then object: “Given that the object form is apprehended in particular (*eva*) as what is apprehended and the cognition form in particular as what apprehends, how are the two the same? For indeed, if they were the same, the two would [each] also appear as their [respective] opposite.” It is not so because, through the power of beginningless obscurational traces, the [correct] establishment of such apprehensions [for each form] is [indeed made] possible. Thus it is taught [by Dharmakīrti]²⁴⁶:

“It [awareness] (...*iyam*), which [in reality] is without forms of known and knowing, is [practically] determined in the way (*tathākṛtavyavasthā*) that it is apprehended by [systematically] deluded people (*bhrāntas*), [namely] as disrupted (°*viplavā*) into distinctly characterized apprehending and apprehended forms (*vibhakta* *lakṣaṇagrāhya* *grāhakākāraviplavā*), similar to the [seeming] distinction between [illusory floating] hairs and cognition [thereof]. Since that is the case (*yadā tadā*), it [awareness] does not need [these] characteristics of apprehender and apprehended [further] urged upon it.”

109,16 This means: Awareness, although it doesn't in its own right have forms of known and knowing, is [mentally] determined and then commonly dealt with just as it is apprehended by deluded (*bhrānta*) practical agents. But [the way] it is apprehended by those deluded ones [is namely] as being disrupted (°*viplavā*) into the distinctly characterized apprehending and apprehended forms. The forms of apprehending and apprehended seem to have distinct characteristics, and these very things [the forms] constitute the disruption which the awareness is here being described as having. What is this [systematic disruption of even normal perceptive awareness] like? It is like the [seeming] distinction of [illusory floating] hairs etc. and cognition [thereof]. [That is], for those whose senses are afflicted by *timira* or the like,

²⁴⁴ [= PV 3.433 ↗, in turn reflected at [= PVA 432,18–19 ↗]. See also footnote 237 above for the alternative version of the verse.

²⁴⁵ This phrase *pratikarmavyavasthānupapatti* is reminiscent of [= TUS 254,17 (and 256,2) ↗], although the context seems different.

²⁴⁶ See [= PVin 1.39–40 ↗, as well as [= PV 3.330cd–332ab ↗]. Note also that no significance should be given to the numbering of the beginning of this sentence (“*avedyavedakākārā...*”) as a “c”-*pāda* in Sankhyayana's editions of PV, PVA, and PVV. Cp. also Prajñākaragupta's discussion of the same starting with [= PVA 365,21–24 ↗].

[floating] hairs and so on, which are actually non-existent,²⁴⁷ appear as if different from cognition, and just so (*yathā...tadvat*) do [the appearances] blue and so on [really not exist and yet appear as if different from cognition]. Given that (*yadā*) this [apparent] dividing up of awareness is due to none other than [primordial] ignorance, therefore it [awareness] (*iyam*) is not to be insisted upon as being [in reality] characterized by something apprehending and something apprehended. These two being insisted upon means needing to make into a further issue (*paryanuyojya*) the characteristics of apprehending and apprehended,²⁴⁸ which the awareness [itself] does not possess; indeed, a form [merely] superimposed out of [primordial] ignorance does not necessitate further scrutiny.

+109,23

Thus, because in this way (*evam*) there exists neither apprehender nor apprehended distinct from awareness,²⁴⁹ it is awareness itself that, due to beginningless traces, appears with multiple forms. Therefore it is incorrect to have said that it [non-yogic perception] apprehends gross objects.

²⁴⁷ For a more up-to-date modern medical account of the phenomenon, see MacDonald (2015, 111n228). Yiannopoulos (2020) also has an account (143ff.)

²⁴⁸ Namely, through improper hypostatization.

²⁴⁹ Taking this *evam* not with the following *vyatirikta* but instead with the °*asam̐bhavāt*, i.e., as referring to the overall preceding refutation of external objects, it should be noted that Dharmakīrti's arguments do not prove the logical impossibility of such objects' occurring, as might be expected from *asam̐bhava*, but rather only the impossibility of knowing about them.

§3 Bhāsarvajña's *Siddhānta A*: In Defense of Realism

§3.1 Partial Residence (*pradeśavṛttitva*)

Partial residence of properties best explains part-whole differences.

§

Dharmakīrti's paradox arguments against the whole are formally invalid.

109,27

Here it is countered that, first of all, it is incorrect to say that (*yat...iti*)²⁵⁰ there is no unitary whole on account of a consequence that all [body] parts must move when, for example, the hand moves, as there [simply] hasn't been established any [positive or negative] pervasion [to prove this]. For indeed, there has never been apprehended any such [positive] pervasion as "whatever thing which, when its hand moves, all ends up moving, is non-existent".²⁵¹ Nor is there observed [as part of common knowledge] (*drṣṭa*) by the opponent [such as myself] any such [contrapositive] pervasion as "for that [e.g. body] which exists, it is not the case that it all ends up moving when for example its hand moves". Moreover, it's not the case that, if there is [given] no acceptable example case (*drṣṭānta*), the inferential reason is ever recognized (*Vdṛś*) as being capable either of establishing one's own position or of refuting another's. As for (*api*) the [supposed unwanted] consequence, it takes place (*ātmānam labhate*)²⁵² [only] once a pervasion is established between the two [properties], like the entailment of a lamp on account of light.²⁵³

²⁵⁰ See §1.1 in the *Pūrvapakṣa*.

²⁵¹ Note that the *pakṣa* here is complex, namely, *ekaḥ avayavin*, and the *sādhya* is *astitva*. This is to be distinguished from having *avayavin* alone as the *pakṣa* and *ekatva* as the *sādhya*, which is not the case here; cp. footnote 196 above.

²⁵² The term *ātmalābha* is most simply a synonym for *utpatti*, but one is tempted here to translate more literally along the lines of "takes cares of itself" or "comes into its own", since that is precisely the point here; entailments can be taken for granted provided that the corresponding connection is properly established, not otherwise.

²⁵³ Cp. PVin 3: "*prabhābhuyupagame pradīpābhuyupagamavad iti*" (Hugon & Tomabechi 2011, p. 5, l. 4), as well as Hugon's 2020 diplomatic edition of Dharmottara's PVinT 3 thereon: "*yathā pradīpasya prabhām āṅgikāryamāṇah tadaiva kāryakāraṇabhbhāvāt kāraṇam aviśikhārūpaṁ pradīpam abhyupagacchati, tadvat tasmād āgamārthaḥ vyāpakavataḥ pratipattiḥ sā, na tv abhyupagamāntareṇa nirākaraṇam*" (17, ms. f. 8b, ll. 5–6, punctuation mine).

This example of light and lamp should apparently be understood as a scenario where other possible sources of light (e.g., the sun or moon) are ruled out; in such a case, given one's prior understanding of the particular pervasion relation between the two, one can conclude "When there is light, there must be a lamp". Yogīndrānanda's (1968) footnote laconically states only the basic pervasion: "*prabhāyām satyām pradīpaḥ prasajyate*" (110n2).

Finally, contra Yamakami here (1999), the word *prasāṅga* in this context does not really mean *prasāṅgasādhanā* or "proof by fallacy" (帰謬論証, 169), although it often does elsewhere. Rather, here, *prasāṅga* seems to have the neutral meaning of simply "consequence" or "entailment". That is, this light-and-lamp

+110,5

Also, (...*api*) if there exists no external object [whatsoever] (*bāhyārthāsamṛbhavे*), then it is inappropriate to say “Or else, if that [whole body] does not move [when the hand is moving], then this consequently amounts to proof that the moving and non-moving [part and whole] are separate.” For no non-crazy person will argue as follows: “There is no unitary son of a barren women, because it would have to follow that when, say, his hand should move about, then it all [his whole body] would [also] move. Or else, if that [whole body] does not move [when the son’s hand is moving], then [there is again no such son] because that would amount to proof that the moving and non-moving [part and whole] are separate, like a sky-flower and an ass’s horn.”²⁵⁴

§

The whole’s properties can differ from those of its parts.

+110,8

[One might object in reply that] the purport of the [said] consequence is that (...*ity ayam prasaṅgārtha*) since being one and the same is contradictory for a [certain] moving thing and a [certain other] not-moving thing, someone who assumes unitariness for the whole ought to accept only and completely that it moves [when its part moves], whereas on the other hand (*ca*), someone who allows that a thing both moves and does not move should not accept that it is unitary. If [one objects] like this, then [to this we would say:] no, this [argument] is pointless. After all, no Naiyāyika or Vaiśeṣika [ever] accepts that a unitary whole [truly] both moves and does not move²⁵⁵ such that this consequence could count meaningfully against him (*yam prati...arthavān*).²⁵⁶

110,12

But surely [one might press]: Given that, even when there is movement of some part(s), there is [in fact observed] no movement of the other part(s),²⁵⁷ therefore both moving and not-moving do apply (*asti*), which establishes difference. [To which we respond:] What is

example does not constitute a “proof by fallacy”, but rather simply represents a neutral case of a pervasion relation.

²⁵⁴ The criticism of Dharmakīrti’s argument being made here can also be more simply abbreviated as *āśrayāśid-dha*, as nicely done by Yamakami, e.g., in his English-language synopsis of this passage, “Analysis of the Nyāyabhūṣaṇa”, accessed online 2002, also reproduced here in Appendix 9.

Note also that, despite the intervening general points about *vyāpti* and *prasaṅga* made above, the example of *khaṇḍapakharāśrīga* corresponds to *vastrodaka*, not to *prabhāpradīpa*. Even at that, however, the substitution of absurd non-existents here does not make for a very generous reading of the Dharmakīrtian argument, which is ostensibly using a valid *dṛṣṭānta* containing a relevant situation involving two interacting but separate things (namely, the cloth and water), in contrast to the totally unrelated sky-flower and ass’s horn.

²⁵⁵ That is, the first of the two alternatives presented is closest to what the Naiyāyika-Vaiśeṣika would actually accept: The whole is in fact assumed to be unitary. The problem with the suggestion, however, is that it also implicitly assumes that the whole should do whatever the part does.

²⁵⁶ The *yam prati* should be understood as introducing a relative clause of “natural” or expected result, as opposed to an “actual”, realized result. See Speyer (1973) for when the “relative clause imports an ability, consequence or design” in Sanskrit (§458b), and also compare e.g. the Smyth (1984) grammar of ancient Greek on the use of *hōste* with the infinitive (§2258a). Here, the Sanskrit result clause is introduced by a declined relative pronoun.

²⁵⁷ Here the comparands are one part (*ekāvayavaḥ*) and the other parts (*anyāvayavāḥ*) rather than one part

undesirable on account of that? If indeed (*yadi nāma*) the [various] parts, by being moving or unmoving [as the case may be], are different [from one another], then what does that have to do with the whole, which is another thing [in its own right]? Indeed, when there arises (*utpadyate*) motion of the whole, then although some given part may be unmoving, it [the whole] is not. On the other hand, when it [motion of the whole] does not arise, then although a part may be moving, the whole is not. This is because, given that they are produced by distinct causal complexes, there does not apply any invariable rule (*niyamāyoga*) that the two movements, [namely that] of the [given] part and [that] of the whole, must arise simultaneously.

+110,17

So (*tarhi*), when half the parts are moving, we do not [in fact always] know whether the whole is moving or not, since at that time (*tadā*) the thought may occur either way. To explain (*tathā hi*): Even if it [the whole] is [really] not moving (*niścalatve* 'pi), there may occur in relation to [certain of] its bases (*āśrayas*) which are seen to be moving the thought that it [the whole] is moving, like [it is also possible] in the cases of [other properties like] color and so on. [And on the other hand], even if it [the whole] is [really] moving, it is possible to think that it is not moving if, due to its inherence (*samavāya*) [also] in [visibly] motionless parts, one does not apprehend its motion; it is like when [a thing's] motion is not apprehended on account of [the thing's being at a] distance or the like. And yet (*ca*) one does not hold one's breath (*anāśvāsa*) like this in every case, because if one apprehends no cause for doubt [about something], then it is appropriate to be confident about it. Indeed, otherwise, there would be no foundation whatsoever for [commonly] treating things as either moving or not-moving.

§

Partial residence of certain properties resolves seeming contradictions.

111,6

Alternatively,²⁵⁸ similar to conjunction, so too does motion reside partially (*pradeśavṛtti*).²⁵⁹ In this way, even one and the same thing is not precluded (*vivrudh*) from being thought about ([°]*pratyayavaiśyatvam*) as both moving and not moving. One might object (*iti cet*) that this is not tenable, given that, in the case of a person running, we apprehend that the motion does not reside partially. [To this we reply:] In that case then, neither will it

(*avayavah*) and the whole (*avayavī/sarvam*). Cp. footnote 197, where *sarva* is interpreted as indicating the latter contrast.

²⁵⁸ I.e., for explaining the observation that our apprehension may occasionally diverge from reality, Bhāsarvajña proposes two alternative ontological angles: one (stated above) based on distinct causes (*bhinnasāmagrī*), and one (stated below) based on the way certain types of properties behave (either residing partially or pervasively).

²⁵⁹ I.e., only in certain parts of its basis. According to chapter 7 ("*guṇapadārthanirūpaṇam*") of the Praśastapādabhāṣya, there are certain qualities that reside in this way, namely, conjunction, disjunction, sound, and specific qualities of the Self (*samyogavibhāgaśabdātmaviśeṣa*). All others qualities pervade their basis (*śeṣāṇām āśrayavyāpitvam*). As for motion (*karma*), which is not a quality for Praśastapāda but rather its own category (*padārtha*), we are not told by what to expect, but we can understand from Bhāsarvajña's argumentation here that motion would seem to be left residing only pervasively. This seems to be part of the reason why Bhāsarvajña re-classifies motion as a quality.

be tenable for conjunction to reside partially, since we apprehend [also] that the conjunction between, for example, a cloth and water does not reside partially.

111,10

One might respond (...*iti cet*)²⁶⁰ that in that case [of the cloth permeated with water], there is [just] a false impression (*abhimāna*) [to the effect] that it [conjunction] does not reside partially due to our apprehending the conjunction of e.g. the [whole] cloth with the water along with the [numerous] conjunctions of all the [individual] parts [of the cloth with the water]. [But] it's the same also in this case [of the man running]: As a result of our apprehending the [positive] motion of the whole [person] along with the [positive] motions of all the parts, there occurs just such a false impression of [movement's] not residing partially. We see no valid criterion (...*pramāṇam na paśyāmaḥ*) for ascertaining what accounts for the [supposed] difference (*viśeṣaniścaye*) between two cases in which (*ity atra*) [on the one hand] there is conjunction of the [whole] body with, e.g., a wall (*kuḍya*)²⁶¹ when [only] a finger is in conjunction with it but [on the other hand] there is no motion of the [whole] body even though there is motion of a hand.²⁶² But then (*tu*), maybe any tenet can be proved merely by bringing it up! Therefore, insofar as movement does also reside partially, then just as there can be [non-contradictory] apprehension and non-apprehension of conjunction in one and the same [whole] thing, so can there be non-contradictory apprehension and non-apprehension of movement, as well.

+111,16

It is with this [same argument]²⁶³ that [the question of the whole's] being covered or not covered is [also] answered. Alternatively (*vā*)²⁶⁴, it is not the case that either apprehension of a [particular] part or contact of a sense faculty with a [particular] part are [such] causes for the apprehension of the whole (*avayavyupalambhe...kāraṇam*) by means of which, when [certain] parts are covered, be they one half [of the whole], three quarters (*tribhāga*), or so on, there should be non-apprehension also of the whole. Rather, contact [of the sense faculty] with it [i.e., the whole itself] is [the relevant cause for apprehension of the whole], provided that it [this contact] is accompanied by all [necessary] cooperating factors. And that [contact of a sense faculty with the whole] is to be inferred from the apprehension of

²⁶⁰ Note that the objection here is not on behalf of a Buddhist, but rather on behalf of a conservative Vaiśeṣika who is beholden to Praśastapāda's view of conjunction as being characterized by *pradeśavṛttitva* but things like motion (and color) not being so.

²⁶¹ Grohma's (1971) rendering of "Krug" (= "pot") (214–15) suggests that he read either *kuḍi* (expected to mean "body") or else *kuḍī* (expected to mean "hut"), or perhaps even emended *kuḍikā* (which Wilson gives as "An earthen or wooden water pot used by ascetics"). But none of this is necessary when "wall" (*kuḍya*) also works just fine.

²⁶² The argument here is difficult to follow since there are no less than four examples involved (hand/body motion, running person motion, water/cloth conjunction, finger/body conjunction). The point is as follows: Against Vaiśeṣika tradition, Bhāsarvajña would like to theoretically allow motion to behave according to *pradeśavṛttitva*, like conjunction, since he sees it as entirely arbitrary to posit a difference between the two cases. The conservative Vaiśeṣika opponent tries to reserve this right for conjunction, and to explain away the motion case as a case of *mere* false impression (*abhimāna*), but Bhāsarvajña points out that, since there is no discernible difference between the two cases of motion and conjunction, this move will backfire, and the conservative opponent will end up losing the *pradeśavṛttitva* for conjunction as well. In fact, Bhāsarvajña analyzes *both* cases in terms of *both* partial residence *and* false impression.

²⁶³ Namely, that about *pradeśavṛttitva*.

²⁶⁴ Cp. footnote 258 above, where the same two explanations are offered, albeit in the reverse order.

it [the whole], while from the non-apprehension of it is inferred merely the incompleteness (*asamagrata*) of the cooperating factors.

111,20

If one should ask why it is that one does not see the entire (*avikala*) whole also when a half is covered, [to this we would answer:] no, [this question is wrong,] because, [given its] being by nature undivided, it [the whole] is in fact seen as nothing but entire.²⁶⁵ [And yet], when it [the whole] is seen with its parts like that [i.e., half-covered] (*tasmims tathāvayave drṣte*), it is not precluded (*aviruddha*) that one might also have a doubt [about what one has seen], depending on [the visible presence of] a distinguishing feature or lack thereof (*viśeṣāviśeṣa*), like a [characteristic] part or the like.²⁶⁶ Apprehension of its parts or the like (*tadavayavādi*) and apprehension of the whole each have their respective causes,²⁶⁷ and so they do not invariably occur together. Therefore, even if [certain] parts are not apprehended, the whole is [still able to be] apprehended.

111,24

Also when it was said “And if one [part] is [dyed] red [then the whole must be red]...” and so on, that too was incorrect. For indeed, it’s not the case that it is through the being red or not being red of [any given] part(s) that the whole is [respectively] such [i.e., red or not], since it [the whole] is something different from those [parts]. On the contrary (*api tu*), for a composite whole in particular (*eva*), being red is [just] conjunction with a red substance,²⁶⁸

²⁶⁵ In other words, the opponent asks why, when we are viewing a partially blocked object, we do not experience an image of the whole object (or at least the side facing us) emerging toward us beyond the obstruction, as it were. In response, Bhāsarvajña subtly changes focus to what he thinks is more important: The *thought* that we experience in such an everyday situation is in fact e.g. “tree”, not “half of a tree”. He thus seeks to disregard the intent of the question as asked, but one can argue that he is thereby being equivocal and perhaps even sophistical in his use of *Vdrś*, since he clearly seems to mean “see as” whereas his opponent was asking about what is more directly “seen”.

²⁶⁶ For example, in the case of a vertical object seen at a distance, a hand can be the particular (*viśeṣa*) or unshared (*asādhāraṇa*) property that distinguishes a person from a post. Cp. Grohma’s (1971) translation, which interprets the *viśeṣa* differently, seemingly as if the text read *āvaraṇādi* rather than *avayavādi*: “[E]s hängt eben davon ab, ob die — ohnehin voneinander verschiedenen — Teile mit einer Besonderheit — also daß sie etwa verdeckt wären — oder mit keiner Besonderheit versehen sind” (177).

²⁶⁷ More specifically, the distinct final causal complexes (*sāmagrīs*) and the operation (*vyāpāra*) thereof. The phrase *avayavādi* occurring again here, with another *ādi* which I resist the urge to conjecture away, seems to retain the same meaning as in the previous sentence, i.e., not only characteristic parts but also all other particular aspects (e.g., size, color) that might serve to dispel doubt. This does not prevent the argument from working, but it does make it less smoothly parallel: It asserts that not only the apprehensions of wholes and parts per se have different causes, but also the apprehensions of any perceivable aspects whatsoever.

²⁶⁸ Contra Yamakami (1999), who implies with his translation “結合によって” (“by conjoining”) (173) that this nominative *raktadravyasamyoγah* should somehow be read as an instrumental or another causal case, I view the nominative as intentional. For the likely source of the sentence, see ≡ TUS 96,14 ↗: “*nīladravyasamyoγo hi raktatā, tadabhāvo ‘raktatā /*”. Note that it is clearly and consistently blue color that is meant throughout the TUS discussion; the word *rakta* means only “dyed”, not red. In the NBHū too, then, we should by no means necessarily translate *rāga* and *rakta* with “red”. I do this here, however, since it makes the discussion a bit more concrete, and since lac (derived from red beetle shells) is in fact mentioned later on at NBHū 153,14. On this same odd equation of color with conjunction, cp. also ≡ NyKand 120,10–11 ↗ “*rāgadravyasamyoγo raktatvam, araktatvañ ca tadabhāvah / ubhayam caikasya bhavaty eva, samyogasyāvyāpyavṛttibhāvāt /*” and Pañdita Aśoka’s ≡ AvNir 7,7ff. ↗ “[...] *rāgadravyasamyoγo hi raktatvam / avayavasya ca rāgadravyeṇa samyoγe ‘vayavino ‘pi tena bhāvyam,*

and [similarly] not being red is [just] the absence of that [conjunction with a red substance]. And so (*iti*),²⁶⁹ given that conjunction does not reside pervasively (*avyāpyavṛttitvena*), it's also not precluded (*na virudhyate*) that a single composite whole be [both] red and not red.

§

Even undivided things can be treated as having partial residence of properties.

+111,27

If one objects “How could there not be pervasion [by e.g. redness] of that which is unitary?” [we respond that] no [this is wrong to ask], because conjunction undoubtedly (*eva*) has the property that (*evam dharmo yena*) it is not [necessarily] apprehended in every part (*tatra tatra...na upalabhyate*) which the composite whole is regarded (*drśyate*) as being related to (*sambaddha*) like color and so on [would be apprehended], even if there is no deficiency in the causes of its [conjunction's] apprehension.²⁷⁰ Similarly, it's not the case that ether is delimited (*avacchidyate*) wherever it exists by conjunction with the ether in the ear canal [of a given person],²⁷¹ since that would lead to the unwanted consequence that all sounds, given that they inhere in that [same ether], would be objects of a single [person's] faculty of hearing (*ekaśrotra*). For this very reason, [we conclude that] sound, too, does not reside pervasively, since [if it did] that would lead to the unwanted consequence that even one [sound] arisen in a particular place (*kvacid utpannasyāpi*) would become an object for every faculty of hearing.

+112,4

[On the one hand, in everyday practice] conjunction, sound, and so on are treated (*vyavahriyate*) as having this sort of property, even by means of the term “partial residence” (*pradeśa-vṛtti śabda*), and yet, [in reality] there does not exist a “part” (*pradeśa*) for ether or other such indivisible things. Even if there does exist the [component] part (*avayava*) as a [kind of] “part” (*pradeśa*) for the composite whole, the conjunction that belongs to the whole (*avayavisamyoga*) does not reside in that [component part], since that would lead to the unwanted consequence that wholes could not be a basis for conjunction. But if [for its

avaśyam hi kāraṇasamyoginā kāryam api samyujyata iti samayāt /.

The *eva* here seems to mean that this definition of redness (or, again, of being dyed red, see footnote 204 above) — which is possibly meant as an alternate definition, judging by the “*atha vā*” in AvNir — applies only to part-possessing wholes. That is, it does not apply to ultimate parts, namely atoms, which instead have “true” redness, so to speak, by way of a simple color universal (e.g., redness) inhering in the instance of quality that is the instance of color (*rūpa*), which is pervasive in its locus (*vyāpyavṛtti*). Cp. also footnote 284 below on universals.

²⁶⁹ Insofar as this *iti* is causal (i.e., “*iti hetvarthe*”), the P reading of *ca* after *samyogasya* should be rejected, and we should instead read *samyogasyāvyāpya vṛttitvena*, as I take it here. Alternatively, given the way that other, later authors cite the first part in similar ways (see footnote 268 just above), the *iti* may simply function as a full stop that ends a direct quotation, and the *ca* may then begin a subsequent point in Bhāsarvajña's own words.

²⁷⁰ This tendency, somewhat strangely worded though it may be here, seems to be the same *pradeśavṛttitva* as just discussed, as affirmed just below at 112,4, where the term is again used explicitly.

²⁷¹ Such “ether in the ear canal” is understood here to be the physical stuff constituting the faculty of hearing (*śrotrendriya*).

part] the atom did not have parts, then it would not have conjunction [with anything], and because of that, with no arising of [whole, gross] bodies and so on, we would end up not apprehending anything [at all].²⁷²

+112,8

Therefore, just as, on your [Buddhist] view, one construes (*parivkalp*) a part (*amśa*) for something actually undivided — namely, in that (*iti*) a non-conceptual cognition can have produced that same (*tad eva*)²⁷³ conceptual cognition that is, in a certain way, like it, and in a certain way not — just so [do we construe a part] also for the supporting basis (*ādhāra*) of conjunction and so on, and thus conjunction and so on reside partially [even for ether and atoms] without a problem. Therefore, even for a unitary thing, being [both] red and not red and so on (*raktāraka tvādi*) are not contradictory.

§3.2 Variegated Color (*citrarūpa*)

Variegated color is a real external entity.

§

Variegated color is a real quality by being a locus of multiple universals.

112,13

In that case, what is the color (*rūpa*) of that whole which has been brought about by those undoubtedly both (*eva*) red and not-red parts? [One might first answer:]²⁷⁴ There is not brought about any specific property (*viśeṣānārambha*), and so it [the overall color of the whole] is simply indescribable (*anirdeśya*) in terms of the specifics (*viśeṣataḥ*) of the [component] color causes (*kāraṇarūpa*) whose specific properties are [mutually] contradictory. But it's [only] with respect to the bringing about of a specific property that there is a contradiction,²⁷⁵ not with respect to the bringing about of a general property. For indeed, the nature of color [in general] (*rūpātman*)²⁷⁶ is present in all cases of blue, yellow, and so on. What one understands from apprehending the composite whole in particular (*eva*) is that, despite being devoid of blue or another such specific property, a color has [nevertheless] arisen, since it is impossible to see a substance with no color [whatsoever], and because it

²⁷² That is, if gross wholes cannot be a basis for conjunction, and if all their gross parts are themselves also wholes, then the search for conjunction's basis continues all the way down to atoms.

²⁷³ This “*tad eva*” phrase seems to emphasize that the conceptual cognition is actually, according to this Buddhist view, not a different entity from the non-conceptual.

²⁷⁴ Relative to the alternative explanation offered below (“*atha vā...*”), this is an “*ekadeśin*” view, as noted explicitly by the P1 scribe (recorded by Yogindrānanda as a footnote: NBhū 1968, 112n4). That is, it is not Bhāsarvajña’s own, preferred view. For more background, cp. also the discussion in VyV (1983, I,63ff.)

²⁷⁵ As opposed to taking the phrase *viruddhaviśeṣāṇām kāraṇarūpāṇām* as going backward with *viśeṣataḥ*, as I’ve done here, Yamakami (1999) takes it as going forward with the following phrase *viśeṣārambhe tu virodhah*, in line with the punctuation of P1: “一方、相反する〔様々な〕特性を持った多くの原因の色が〔一個の〕特性を生ずるというなら矛盾であろうが、普遍(*samanya*)を生ずるというなら〔矛盾は〕ない” (174). Either reading can work in the context to the same effect, but I think that the phrase *viruddhaviśeṣāṇām kāraṇarūpāṇām viśeṣārambhe* is a bit cumbersome to have to fit in sentence-initial position before enclitic *tu*.

²⁷⁶ The P1 scribe glosses this word as *rūpamātra* (≈), which E further renders as *rūpasāmānya*.

would be absurd if one were to see one thing by means of the color of another.²⁷⁷ So, it is nothing more than just color in general (*rūpamātra*) that has arisen in that case (*tatra*), indescribable in terms of a specific property. However (*tu*), what appears [to the perceiver] in that case is [in fact] something variegated, on account of [the whole's] connection with the variegated parts,²⁷⁸ like the appearance of blue and so on in a crystal.

+112,19 [One might say:] If that is so, [then] also the color of an atomic dyad, when it is brought about by [single atoms'] colors whose specific characteristics are [mutually] contrasting (*viruddha*), ends up as indescribable, and thereby every color of a whole which follows from those [dyads] (*tatpūrvaka*) would become indescribable.²⁷⁹ And then (*tatah*), because the specific color of an [individual] atom (*paramāṇu*) is [itself] beyond the scope of the senses, that would be the end of describing specific colors altogether. [To which we would reply:] This is not so, because every bringing about [of something new] (*ārambha*)²⁸⁰ is dependent on the unseen force (*adr̥ṣṭa*), and the unseen force brings about effects that are applicable to human affairs (*puruṣārthopayogikārya*). On the other hand, insofar as things were to be brought about in that way (*tathārambhe*),²⁸¹ it would not serve (*na...upayogah*) human affairs. And so (*iti*) it is [clearly] not in every case (*na sarvatra*) that things are brought about in that way (*tathā[rambhah]*) or (*vā*) that there is a problem (*virodhaḥ*) with apprehending specific color.²⁸²

(-113,2)

+113,4 Alternatively [one can say that] its [the whole's] (*tad°*) color that has arisen is none other than [really] variegated, because this is exactly how it seems, with nothing to call it into question (*abādhita*). If one says that it is contradictory, and therefore improper, to say that it [the whole] is both (*ca*) unitary and variegated,²⁸³ [we would say] no [it's not improper],

²⁷⁷ That is, if the whole is a real thing that is visually perceived, then it must have its own color. Whether or not that color is specifically describable in a given way (namely, in terms of the individual colors of the component parts) is said by Bhāsarvajña here to be a separate question.

²⁷⁸ Note that the parts are variegated only together as a group, not each individually. Note also that the whole is said to have a connection (*sambandha*) to its parts, which is namely its inherence in them.

²⁷⁹ That is, even the tiniest amount of a second color at the atomic level would jeopardize the purity and thereby identifiability of the color of any thing built upon such dyads, including already the atomic triads (*tryanukas*) made therefrom.

²⁸⁰ E.g., every production of qualities from other qualities.

²⁸¹ I.e., without a *rūpavīśeṣa*.

²⁸² This somewhat more difficult reading, with nominative *virodhaḥ* and disjunctive *vā*, is also mentioned by the P1 scribe as a variant (*pāṭhāntara*), and E (1968) in turn attributes it to a “*prācīnatippaṇam*” (113n2), on what grounds is not entirely clear. The nominative, but not the *vā*, is attested by V.

As for the argument itself, it seems rather unconvincing, not least because of its anthropocentricity. On the one hand, it asserts that some wholes simply may not have a specific color. On the other hand, it denies that there are that many cases of things so variegated in their appearance that it is difficult to practically deal with them. It thus effectively chooses to deny the importance of the question rather than try to answer it in a satisfying way. Cp. the critique of Bhāsarvajña's *vyavahāra* arguments by Franco (1987a). Significantly, however, this is apparently only an intermediary argument (see footnote 276 above), not Bhāsarvajña's own. Cp. in this way also the similar sequence found above at 110,17ff.; Bhāsarvajña first suggests that situations of genuine doubt simply are not very frequent, and second, he proposes an alternative solution (there based on *pradeśavṛttitva*) which he actually prefers.

²⁸³ Bhāsarvajña chooses here not to reproduce Dharmakīrti's punning at PV 3.200ab, which reads: “*citraṃ tad*

because even if something [e.g., a color] is unitary, it can, by being the locus (*adhikarāṇa*) for multiple properties such as blueness etc., be the object of a mental appearance (*pratibhāṣa*) of something variegated, in the same way that a cloth to which are bound multiple dyes such as red chalk and so on (*gairikādi*) is apprehended as being variegated.²⁸⁴

+113,7

If one says that, given that the universals (*jāti*) blueness [yellowness] and so on are [mutually] opposed, their inherence [together] in a single thing is not appropriate, [we would answer] no [this argument fails], since this opposition is not established. If one says that it is established, because one does not observe them together in other cases, [we would answer] no [that cannot be right], because then it would turn out that also blueness and water-lily-ness (*nīlatva, utpalatva*) would be [mutually] opposed. If one says that there is no opposition of these two, because they are seen [together] in a single thing, [we would answer that] this [observed compatibility] is the same [also for multiple colors].

+113,10

Also with [positive] argumentation (*yuktyāpi*)²⁸⁵ it can be established (*sambhāvyate*) that the color of the whole, which is brought about by colors of [mutually] dissimilar kinds (*bhinnajātīya*), is a locus for multiple universals, [namely] since the colors of the parts are observed [as part of common knowledge] (*darsana*) to necessarily [have to] bring about colors [only] of their same [i.e., own] type in the whole. Let it be an example [for this argument] that also on the [Buddhist] opponent's view, a cognition inlaid (*khacita*) with multiple mental traces is variegated [in this way]. For indeed, it is none other than differences of universals which are discussed with the [Buddhist] terms "difference of exclusion" and "difference of ability". Whether or not these [exclusions and abilities] are [in turn] different from their substrates (*āśrayas*) is a different point of disagreement.

+113,15

Therefore, as a locus of multiple universals, a unitary color is [really] variegated (*citra*). And yet (*ca*) when that [variegated color], although being such [a locus of multiple universals], is, on account of its multiple universals' for whatever reason not [all] being observed [at once], apprehended as qualified by only a single (*ekenaiva*) particular universal, then it [the color of the whole] is apprehended as either white or red [alone], not as variegated, just like, for example, earth and color (*dharanirūpa*).²⁸⁶ Alternatively (*atha vā*), [one might say that] it is only the color of a [given] part (*avayava*) that is apprehended as

ekam iti ced idam citrataram tataḥ /

²⁸⁴ Technically, it is the instance of color (*rūpa*) that serves as the locus (*adhikarāṇa*) for multiple universals (*jātis*) and which becomes the object of the mental appearance of something variegated, as stated below in 113,4. At the same time, one can also refer to the substantial thing possessing the color as the object of that mental appearance, since, according to the Nyāya-Vaiśeṣika theory, the quality gets in touch with the sense faculty by way of the quality's "inherence in that [substantial thing] which is [actually] conjoined [with the sense faculty]" (*samyuktasamavāya*); see e.g. Ganeri (2019).

²⁸⁵ So far, Bhāsarvajña had merely suggested his *adhikarāṇa* solution and then responded to some objections about it. Here he is finally giving a real argument for it, namely, that it is a necessary result of the way that individual components causally contribute to making a new thing.

²⁸⁶ The idea here seems to be to take advantage of the fact that the Buddhist should accept the identity of earth (as singular) with its qualities (as plural). As discussed by D. N. Shastri (1976, 187), Uddyotakara also has a similar treatment of the same issue in the context of NS 1.1.14 about the *guṇas* as the objects of perception ("gandharasarūpasparśaśabdāḥ pr̥thivyādiguṇāś tadarthāḥ"). Cp. also VyV (1983, I,064ff.).

white or red.²⁸⁷ By contrast (*tu*), the color of the whole is accepted as being directly perceived (*pratyakṣa*) only at the time that one apprehends something as variegated. [Either way] so be it, we do not insist [on any one position] in this matter, because our refutation of the challenge advanced by the Buddhist (*śākyoktadūṣaṇaparihāra*)²⁸⁸ will succeed in any event (*sarvathopapatteḥ*).

§

Atoms cannot explain apprehension of complex properties like variegation.

113,21

On the other hand (*tu*), those who do not admit the [real existence of the] whole must for their own part (*api*) explain (*vaktavya*) the object of a mental appearance of something variegated etc. If they admit of an object with parts other than the atoms (*paramāṇuvilakṣaṇāvayavavaviṣaya*), then that very thing being admitted is the whole.²⁸⁹ Meanwhile (*tu*), the atoms [themselves] cannot be sense objects (*akṣaviṣaya*) because they are beyond the scope of the senses, and also (*ca*) because they lack the characteristic mark of the object. Indeed, they [the Buddhists] accept that the characteristic mark of an object is that it produces a cognition which has its form.²⁹⁰ And yet, atoms do not produce a cognition with themselves as the form (*svākāra jñāna janaka*), since, in every case [of cognition], one is aware only of something whose form is gross and so on. If something that produces a cognition with a different form [than its own] (*vilakṣaṇākāra jñāna janaka*) can also be an object, then the visual faculty etc. as well would become an object.

114,6

Now [one may say]: Atoms do project (*arpaka*) the form of blue etc., and for that very reason, they [themselves] are an object [of cognition]. [To which we would respond:] This is incorrect, since this form of blue etc. is apprehended (*saṃvedyate*) as none other than something that is by nature gross and so on; there does not appear any other form of blue etc. consisting in [nothing but] dissociated atoms (*asamśliṣṭaparamāṇu*).

+114,8

Moreover (*ca*), how does one arrive at the following distinction: that only the blue form [in cognition], for example, has an external material cause (*bāhyopādāna*), and not, for example, the gross form [in cognition]? After all, like the e.g. gross form, so also (*api*) the e.g.

²⁸⁷ Cp. PV 3.202ab: “*tatrāvayavarūpam [...] kevalam dṛṣyate...*”

²⁸⁸ By *śākyoktadūṣaṇa* here is meant the Buddhist's overall challenge to the idea of the *avayavī*.

²⁸⁹ I read *paramāṇuvilakṣaṇāvayava* as a *bahuvrīhi*, since the challenge here is to account for the overall object of a mental appearance of something variegated. Alternatively, if we want to read the compound as a *karmadhāraya*, then this seems to imply that the content of the experience consists in some part or parts, which seems less intuitive, but of course, since parts above the level of (and thereby different than) atoms are also wholes in their own right, the overall point remains the same.

For the likely source of the wording here, albeit used in a different way, cp. ≡ NV 220,3–4 ↪ : “*pratyakṣatvād iti bruvāṇenāvayavavavyatirikto 'vayavy abhyupagato bhavati, paramāṇūnām atīndriyatvāt | na hi paramāṇavaḥ kadācit kenacit upalabhyanta iti |*”.

²⁹⁰ See Frauwaller's Tibetan edition (1930) of Dignāga's Ālambanaparīkṣā: “*yul zhes bya ba ni shes pas rang gi ngo bo nges par 'dzin pa yin te de'i rnam par skye ba'i phyir ro*” (176); also his translation: “Objekt (*viṣaya*) sein heißt, das eigene Wesen (*svarūpa*) wird durch die Erkenntnis (*jñāna*) erfaßt (*avadhāryate*), indem sie in seiner Gestalt (*ākāra*) entsteht” (180). Cp. also N. Aiyawasmi Shastri's (1942) Sanskrit reconstruction: “*viṣaya iti | jñānenā svarūpam eva nirdhāryate | tadākāratayā jāyamānatvāt |*” (3).

blue form is not observed (*dṛṣṭa*) by the advocate of forms [in cognition] (*ākāravādin*) as something apart from the form located in ("sthā) the cognition. So, how is it that, by means of direct perception and non-apprehension (*pratyakṣānupalambhābhyaṁ*), a particular [external] object [e.g. blue] and the [cognitive] form thereof can be established as cause and result, respectively?²⁹¹ Instead, by implication (*arthāpattiā*), also the gross form and so on (*ādi*) ought (*syāt*) to be established as having an external material cause,²⁹² since this has the same [theoretical] benefit (*samānayogakṣema*).²⁹³

+114,12 Should one say that it is only the numerous atoms arranged in a certain configuration (*samnivista*) that appear as gross, [we would answer] no, because of what was [already] said [earlier].²⁹⁴ A cognition which has such [gross] form in relation to atoms that are [in their own right] not individually gross when not collected together would certainly be erroneous.²⁹⁵ And furthermore, would those many [atoms] (*bahavaḥ*)²⁹⁶ project only a single form [into awareness], or would they project a different one for each atom? If [on the first alternative] they project only a single form into awareness, then it would end up that even perception, by apprehending a form that is common [to numerous individual things], would have a universal for an object.²⁹⁷ And it [perception] would also end up being erroneous, since those things [i.e., atoms] which each have [their own] distinct forms would be apprehended by means of [only] a single form. And [finally] (ca), there could not be a mental appearance of something variegated, for indeed, we do not speak of being variegated (*citratā nāma*) for something with a singular form.

+114,18 Then [suppose]: The cognition has distinct forms for each atom. That also is incorrect, because a cognition which is [itself] undivided cannot have distinct forms. For indeed, insofar as there is a division of forms, either there must also be a division of cognitions, or else it [i.e., the cognition] will lose its [very] nature [as one single thing]; there is no other

²⁹¹ For the relation of *pratyakṣa* and *anupalabdhī* to the determination of cause and effect, compare @ HB 4,13–5,4 → .

²⁹² That is, like the initially puzzling fact of Devadatta's fatness in the traditional example of *arthāpatti*, so too does each fact of our coming to be aware of other forms besides color, like those of grossness or unity, necessitate a corresponding, equally plausible causal explanation, similar to the explanatory conclusion that Devadatta must eat at night.

²⁹³ I.e., the same theoretical benefit as having something internal do so. On translating *yogakṣema* in this way, cp. Steinkellner's (1967) translation of the same as "Nutzen" in the Hetubindu (Teil II, pp. 36–37, corresponding to the text of Teil I, p. 35, or more recently, Steinkellner 2016, p. 4). The term has a complex etymology spanning Vedic, Arthaśāstra, and Pali literature, for which, see P. G. Lalye's and Bhiksu Kak Muk's "A Note on Yogakṣema"(2005), as well as, more recently, Pontillo's and Neri's response to Norman (2019).

²⁹⁴ See above at 106,8–9ff. ("na hi *pratyekam araktānām samudāyāvasthāyām raktākāratopalabhyate...*").

²⁹⁵ Note that the Buddhist opponent would not disagree with this assessment of ubiquitous erroneousness, but rather with the interpretation of the significance thereof.

²⁹⁶ The reading *bahavaḥ paramāṇavaḥ* (in P and E) is more likely to be an elaboration of the edited reading *bahavaḥ* (in V) for the sake of clarity than the latter is to be an unmotivated reduction of the former. I therefore choose the more difficult reading. The meaning, of course, is not affected.

²⁹⁷ Although it is not clear that he is Bhāsarvajña's source for this objection, Dharmottara, in a brave departure from Dignāga and Dharmakīrti, notably anticipated this very insight about perception — see e.g. McCrea and Patil 2006, 16ff. — thereby producing a Buddhist position distinctly further in the direction of transcendental idealism (cp. D. N. Shastri 1976, 43–44).

way out (*gati*). If one [then] says that (*iti cet*) a division of cognitions on the basis of a division of forms is in fact accepted, [we would respond that] no, [this is still wrong] because it is contrary to experience. One experiences only a single cognition of e.g. a pillar, [and] not that (*iti*) there are innumerable (*a[pari]samkhyāta*) different cognitions, one per atom. Moreover, given that the cognitions, each of which amounts to no more than (*paryavasita*) an individual form, would have forms that are not mutually known to each other (*parasparato'samvidita*), like cognitions in distinct continua, how could there be an awareness of all (*api*) those many things [i.e., the atoms] as [together] having e.g. a gross form?

§

Cognition alone cannot explain apprehension of variegation.

115,1

Then [one might say]: There is no external object whatsoever, and so (*iti*) in every case, it is just awareness that appears as having that form [of something external]. [We respond:] That is also incorrect, because (*hi*) how could awareness, for its own part, being singular, have a variegated form? If one allows a thing of undivided nature to be variegated, then come now (*khalu*), what crime has been committed by the whole such that, despite being well-known to all, it should be [so] repudiated?

115,4

Now [one might say]:²⁹⁸ What we accept is not that a [single] thing of undivided nature has a variegated form, but rather that multiple cognitions (*anekam vijñānam*), arisen simultaneously and with their own respective forms, are [together]²⁹⁹ spoken of as being variegated (*citram ity ucyate*). [To which we respond:] That is also not correct, because, as a result of [each cognition's] amounting to (*niṣṭha*) reflexive awareness, only a single form is [able to be] experienced. [For the Buddhist opponent] it can by no means happen that one cognition experiences the form of another cognition. And then, without that experiencing [by one cognition of another cognition's form], how could the simultaneous arising (*utpāda*) of cognitions with different forms be variegated?³⁰⁰ It would be like cognitions with multiple forms [arising] in distinct continua.

+115,7

Then [one suggests]: By those [multiple cognitions], after they have arisen [together] in a single continuum, there is produced a single conceptualization (*vikalpa*) that determines (*adhyavasāyin*) the variegated form. [Our answer:] No, [this is wrong] because it is observed that the cognition of something variegated (*citrajñāna*) also appears vividly, and you

²⁹⁸ I read the second *iti* with P, and I interpret the *ucyate* as being within the objection.

²⁹⁹ While it could be as innocuous as the English construction “many a” + singular noun, which only adds formality to an expression and implies no complicated metaphysics, it does not seem coincidental to me that the opponent has used the word “many” (*aneka*) in the singular here, precisely when the exact balance of singularity and plurality has come into focus. While I hesitate to translate this as “manifold”, since that might overemphasize singularity, I do think one should understand there being an important aspect of collectivity here.

³⁰⁰ Notice that the property of being variegated (*citratva*) is here being ascribed to the arising itself (*utpāda*). That is, I disagree with P’s reading *utpādaka* as if indicating yet another factor, perhaps a cognition, which causes the arising of the multiple cognitions.

[Buddhists] don't accept that conceptualizations appear vividly.³⁰¹ If the conceptualization, in turn, [itself] has a unitary form, then how does it determine a variegated form? [Or] if it [itself] has a divided form, then how could something undivided have a divided form? By this same token (*iti...anenaiva*) is defeated also the endless talk about mental traces (*vāsanās*).³⁰²

115,12

Now [it is suggested]: It is accepted that multiple simultaneously arisen cognitions are mutually knowable to each other through their being produced from the same substrate cause (*upādāna*)³⁰³, and in this way (*tena*), a mental appearance of something variegated is nothing more than the apprehension of multiple forms. [We answer:] This is not so, for indeed, if a cognition is apprehended (*upalabhyate*)³⁰⁴ as appropriating another cognition's form,³⁰⁵ then how could it have a single form? And on the other hand (*ca*), if it is devoid of that [other cognition's] form, then how could it be an awareness of that [other cognition] (*tat tasya saṃvedanam*)? And the same [failure to be the cognition's object] would also be the case for the external object: If the form one becomes aware of is not of the same nature [as the object] (*atadātmabhūta*), then it [the cognition of the form] would be nothing more than a conceptualization of the form lacking in epistemic instrumentality

³⁰¹ For an example of Dharmakīrti clearly stating that conceptuality and vivid appearance do not mix, see ~ PV 3.283ab ↪ (“*na vikalpānubaddhasya spaṣṭārtha-pratibhāsitā /*”). On the other hand, PV 3.299 (“*suptasya jāgrato vāpi...*”) also makes clear that vivid, non-conceptual cognitions can occur also during sleep.

³⁰² That is, the problem of locating the numerical plurality of forms also cannot be passed off onto the *vāsanās*, because they too will have to be associated either with unitary or divided forms.

³⁰³ The term *upādāna*, most literally “appropriating, taking” or also “that which is appropriated”, has different connotations for Buddhists and non-Buddhists. For non-Buddhists, it is usually translated as “material cause”, referring to what is “taken up” for bringing about a new thing, like the clay for a clay pot. For Buddhists, however, especially in view of its usage in Pāli, it is more often translated as “clinging [to existence].” This too, however, in indicating an important tendency of the mind, also refers to a sort of productive mental substrate closely associated with the store-consciousness (*ālayavijñāna*). See, e.g., the list of near-synonyms for *bīja* in Asaṅga’s *Yogācārabhūmi*, quoted and translated in Higgins & Draszczyk (2019, 62n115):

The Manobhūmi of the Basic Section of *Yogācārabhūmi* states that the following terms should be known as near-equivalents (*paryāya*) of *bīja*: *dhātu*, *gotra*, *prakṛti*, *hetu* (“cause”), *satkāya* (“collection-being,” i.e., the five *upādāna-skandha* taken as a being), *prapañca* (“elaboration”), *ālaya* (“substratum,” lit. “what is clung to”), *upādāna* (“what is appropriated”), *duḥkha* (“suffering”), *satkāyadṛṣṭyadhiṣṭhāna* (“basis of personalistic view [of self]”), and *asmimānādhiṣṭhāna* (“basis of the sense of self-conceit”). *bījaparyāyāḥ punar dhātūr gotram prakṛtir hetuh satkāyah prapañca ālaya upādānam duḥkham satkāyadṛṣṭyadhiṣṭhānam asmimānādhiṣṭhānam cety evambhāgīyāḥ paryāyā veditavyāḥ ||*. (Manobhūmi, Bhattacharya ed., 2618–19).

³⁰⁴ E corrects the active reading *upalabhatē* in P (which could also work with an impersonal subject “one”) to passive *upalabhyate*, which is also attested by V. Assuming that the passive is correct, it might be even better to conjecture *upagamyate* here instead, since it is not really experience which can differentiate whether a given cognition relates to other cognitive forms in this way, and since the visual similarity of the akṣara sequences “*labhya*” and “*gamyā*” could easily have led to such a scribal error.

³⁰⁵ That is, in addition to its own.

(*niṣpramāṇikā*).

§3.3 Variegation Non-Dualism (*citrādvaita*)

Non-dualistic negation of difference is incoherent.

§

Self-cognition and variegation non-dualism preclude proving the falsity of difference.

115,18 [Here one might suggest:]³⁰⁶ In that case, we should suppose (*astu*) non-duality of wondrous variegation (*citrādvaita*), and [we should] not [suppose] an external thing [that is] like that [i.e., variegated] (*evam*), since that [external thing], when analyzed as something different in nature [from cognition] (*bhinnātmanah*)³⁰⁷, is impossible. And neither is it possible to analyze cognition [as different]. For indeed, cognition cannot on its own (*svayam*) analyze (*vivecyate*) itself (*ātman*), since one is aware of it [the cognition] only as having a unitary nature (*abhinnasvarūpa*). Nor [can it be analyzed] by another cognition, since that [other cognition] also is aware exclusively of itself (*ātman*).

+115,21 Then [one might object to this Buddhist claim, saying]:³⁰⁸ There is [in fact able to be] analysis [of cognition] in that (*iti*) a cognitive form appearing as intact on its own (*kevala*) at one point in time (*idānīm*) is [known to be] different from a prior one [i.e., a prior cognitive form] not appearing [any more]. [The Buddhist would respond:] No [that cannot be], because there can be no [direct] awareness of a prior thing, on account of it being not given to immediate experience (*parokṣa*). And without knowledge (*pratīti*) of that [prior cognitive form], how could it [the present cognition] know that it is something separate from that [prior cognitive form]?³⁰⁹ If [one suggests that] it is known through memory,³¹⁰ [the Buddhist answer is that] no [it cannot be], since memory is not a means of valid knowledge. If one says that it most certainly is a means of valid knowledge, given that it is produced from experience, [the answer is still that] no [this is incorrect], since there is no means by which it can be validly known that it [memory] was produced from that [experience]. For indeed, it is not the case that memory, without fully knowing (*aviditvaiva*) its [prior] direct experience, [nevertheless] knows that it has arisen from [that] experience. On the other hand (*tu*), if it were [directly] aware of the experience, then it would just be the experience [itself], not

³⁰⁶ The following is informed by PVA pp. 289–90. See details below.

³⁰⁷ Read *bhinnātmanah* with E's emendation here, and read as support the *kevala* at PVA p. 289,27–28: "citravijñānātmabhūto yo nīlādiḥ kevalo śakyadarśanah, tato vivecayitum asākyatvād ekataiva buddheś citrāyām api /" If this were read as "non-different" (*abhinna*°) along with the mss. (cp. Yamakami's translation "その分析されうる〔外界が〕本質的に不二である (*abhinna*) ことはありえないから", 1999, 181, choice confirmed by n. 86), then the meaning would have to be that the object is not different in nature from the cognition, but that is precisely the sense in which the Buddhist thinks the object *does* occur (*sambhava*).

³⁰⁸ See ~ PVA 289,33–34 ↩.

³⁰⁹ The cognition (nt. *jñānam*) is here personified in direct speech with *iti* through the use of the first-person pronoun. The same is done below for memory (f. *smṛti*).

³¹⁰ See ~ PVA 290,4–7 ↩ ("atha smṛtvā...anubhava eva tadā syāt /").

memory. By this [same line of argument] (*etena*) are rejected [also] inferential cognitions and so on.³¹¹ They too, by amounting to (*°niṣṭhatva*) reflexive awareness, are not capable of being aware of something else, for if they were aware of something else — [which is to say] if they were to end up (*āpatti*) having the form of that [other cognition] — then they would simply be that [other cognition].

+116,3

Therefore, given that impossibility of analysis [into knower and known], there is only a lone, wondrously variegated (*citrā*) awareness with [multiple] forms (*°ākārā*) of apprehended and apprehender, or of blue and so on, and thus (*iti*) is established [the theory of] non-duality through wondrous variegation.³¹² And because we apprehend this [cognition] to be this way [i.e. non-dual] (*itthamsvabhāvasyaitasya*) through a means of valid knowledge (*pramāṇena*),³¹³ there is also no contradiction.

116,7

About this [Buddhist idea], it is said [by us] that this is inappropriate (...*anupapattiḥ*), because by just this *sūtra* — “definitive positions on numbers [of types of things existing in the world] (*saṃkhyaiकान्ता*) cannot be proven through either the establishment (*upapatti*) or non-establishment of a [given] proving cause (*kāraṇa*)”³¹⁴ — all non-dualist views are defeated. We will also expand on why this is the case later on.³¹⁵

+116,9

For now (*iha*), though, a challenge is offered (*paryanuvyuj*) in the following way: If it is the theory of non-duality through wondrous variegation that you [the Buddhist] intend, then why all this effort (*mahāprayāsa*) in refuting the Veda? For in that, too, the ultimate object (*paramārtha*) is the Self (*ātman*), which is aware (*bodha*) by its [very] nature and without a doubt (*eva*) unitary, and which has diverse forms (*viśvākāra*).³¹⁶ Similarly, scripture records that “Truly, all this [world] is *brahman*,” “The personal soul (*puruṣa*) is nothing but pure awareness,” and “This [world] (*idam*) is only one, there is no second.”³¹⁷ [Therefore] you

³¹¹ That is, they are also rejected as ways for cognition to know its own difference from the prior cognition.

³¹² Cp. [= PVA 290,12–13 ↗]. On separating “*°ākārā citrā*” in this way, see Iwata (1991, II,58n55). The same explains the translation of *grāhyagrāhakanīlādi* as a *dvandva* (hence “or”) rather than as a *karmadhāraya*.

³¹³ That is, reflexive awareness itself is authoritative.

³¹⁴ See [= NS 4.1.41 ↗]. The Bhāṣya gives examples of such views by ascending number — (1) *sat*; (2) *nitya, anitya*; (3) *jñātṛ, jñāna, jñeyā*; (4) *pramātṛ, pramāṇa, prameya, pramiti*; etc., etc. — and responds that it’s not possible to find an appropriately distinct *sādhana* for an inference when the *pakṣa* is “all things”.

³¹⁵ See later in the NBhū, “*saṃkhyaiकान्तासिद्धिः pramāṇानुपपत्तिपत्तिभ्याम् iti / pramāṇानुपपत्तात् तावन् ना सिद्धिः सरवादसिद्धिप्रसांगतः /*” (580,16–18), where Bhāsarvajña reads *pramāṇa* instead of *kāraṇa*. We find this same suggestion in the form of a gloss by the scribe of the later Jaisalmer NBh manuscript (J2D 45r14); for more information on mss. used for the Nyāyabhāṣya Digital Critical Edition project, the most useful available resource remains the Manuscript Concordance on the old FWF website; see <https://www.istb.univie.ac.at/nyaya/Materials/2/manuscript-concordance.html>.

³¹⁶ For *viśva* in the sense of *citra*, cp. PV 3.204ab, “*vaiśvarūpyād dhiyām eva bhāvānāṁ viśvarūpatā /*”, in Dunne’s (2004) translation: “[...] things are various because cognitions are various” (399). For *viśvākāra* specifically, cp. Kṣemarāja’s Spandanirṇaya on Spandakārikā 1.11, where he is apparently quoting the Kakṣyāstotra: “*madhye [...] tiṣṭhan viśvākāra eko ‘vabhāsi [...]’*” (M.K. Shastri 1925, 25), and see also the translation in the same (53).

³¹⁷ See e.g. ChU 3.14.1 (Limaye & Vadekar 1958, 102), BĀU 2.4.12 (208) and/or 4.5.13 (255), and ChU 6.2.1 (137), respectively. Aside from the first case, which is clear, I do not know whether these are meant to be verbatim quotations of unique sources or rather something more like general slogans.

also should just say that (*ity evam eva*) this teaching [of yours] is for the purpose of becoming clear on (*niśvci*) exactly this point (*artha*) of the Vedas, like [it is for] authors of such teachings as the Brahmasūtra [i.e. Bādarāyaṇa] (*śārīrikādiśāstrakārvat*). And on the other hand (*tu*), it's not appropriate to speak of their [the Vedas'] lack of epistemic instrumentality, since then your [own] teaching, as well, given that its aim is no different from [the aim of] those [Vedas], would end up lacking [its own] epistemic instrumentality.

- +117,2 There might be the following [response from the Buddhist]: The property of [cognition's] having a variegated form is itself (*api*) actually not [ultimately] real, as it cannot be apprehended. To explain:³¹⁸ A reflexively known cognition, given that it is completely immersed (*nimagna*) in being aware of the form of reflexive knowing, is not aware of another [cognition's] form. One might say [by way of objection] "Even if it were aware of that [other cognition's form], what would be the problem?" [To which the Buddhist would respond:] Nothing less than the incompatibility (*asambhava*) of [a thing's] own-nature and other natures. For indeed, it's not possible that (*iti na yuktam*) a cognition uses its own nature to know another [cognition's] form, since its [i.e., a given cognition's] nature is differentially fixed (*vyavasthāna*) upon its own self. How can something whose nature is intent upon (*niviṣṭa*) its own form, and which is [thereby] strictly oriented toward itself, know another?

- +117,7 If one objects that it is oriented toward others, [the Buddhist would answer that] in that case, it cannot know its own self, [and] therefore, similar to cognitions in different continua, it [the cognition] is not aware of the two [itself and the other]. If one says that that [nature (*ātman*)] which has these two orientations (*ābhimukhya*) is what is singular,³¹⁹ [the Buddhist answer would be to ask] what becomes aware of there being two things present? If one says "that [nature] itself", [the Buddhist would say] then it turns out that there are the two orientations and reflexive awareness as a third thing. And then, if there is [to be] awareness of the three [things being present], one must admit another nature (*ātman*). And then that [nature] ends up having a trio of orientations and [again] self-awareness as a fourth thing. And then another, and then another, and so there would be a grand succession of pointless things. Therefore, there is just the single awareness.

- +117,12 [The Buddhist continues:] In that [awareness], the appearance of difference is merely an error (*upaplava*),³²⁰ and so (*iti*) also the cognition, [insofar as it is] not apprehended as it is, is

³¹⁸ Following this "tathā hi", and continuing through "*śūnyataivāvaśisyate*", the NBhū paraphrases PVA 288,15–23. For details, see NBhū 117,3–10 ~ PVA 288,15–20 ↗ and NBhū 117,10–14 ~ PVA 288,21–23 ↗ (following document divisions of the Pramāṇa NLP corpus). Meanwhile, the preceding sentence ("*citrākāratāpi...*") and the following sentences about exclusion (*parāvṛta, vyāvṛta*) are Bhāsarvajña's own. What's more, the material following after that, from "*idam vastubalāyātam...*" to "...«*sāṃvyavahārikasya*» *ityādi*", is even more of a hodgepodge of variously sourced items, including quotation and paraphrase from PV, quotation from PVin, and seemingly novel material of Bhāsarvajña's own making. This clearly shows that Bhāsarvajña's opponent is a creative synthesis of Dharmakīrti and Prajñākaragupta.

³¹⁹ That it is "nature" (*ātman*) that the speaker has in mind here is indicated by the switch into the masculine gender, despite the prevailing talk about *pratīti* (f.) and *saṃvedana* (nt.), and as confirmed by the explicit mention of *ātman* in what immediately follows. As for the meaning of this word, I've translated here according to the Buddhist perspective, but it also seems possible that Prajñākaragupta's opponent is trying to say that the personal Self is what can be intentionally directed toward multiple objects.

³²⁰ See ~ PV 3.212cd ↗: "*jñānasyābhedino bhedapratibhāso hy upaplavaḥ*". Prajñākaragupta includes the

in fact unreal, and so (*iti*) only emptiness (*sūnyatā*) is left. For indeed, without understanding what is different from a given thing (*tadanyāprati pattaū*), it's not possible to comprehend what is excluded from what is not that thing (*atadrūpaparāvṛttam*).³²¹ Nor is it possible to differentially ascertain that one is aware of not apprehending the property of being excluded from non-awareness.³²²

- +117,16 Thus it is taught [by Dharmakīrti]³²³: “Intelligent people say this, which follows from the power of real things: / Things disappear (*viśīryante*) in the same way they are conceptualized (*cintyante*) //” If one accepts this (*etat*) about things in their own right (*svayam*) — namely, that (*yat...iti*) when it [a thing] is thought about, it disappears — then what can we do about this? And yet (*ca*), it’s [also] not appropriate for a person of proper reasoning (*nyāyavādin*) to accept something without consideration just because it appears (*pratibhāsamātreṇa*), since then one would also end up accepting [as real] the objects of dreams and so forth. With that being the case (*iti...tarhi*), [one might further ask:] how can one communicate the nature of [a means of valid knowledge] e.g. perception [merely] by rejecting an opponent’s position? [By Dharmakīrti] it is said about this [that what he teaches is in particular the nature] “of

“*jñānasyābhedinah*” in his quotation here (1953, 288,22), leaving off only the “*hi*”, but Bhāsarvajña condenses further.

³²¹ In these two very dense sentences, Bhāsarvajña proposes a peculiar Buddhist arithmetic: *aphoa + advaita = sūnyatā*. The starting point is the *aphoa* doctrine, whereby a given concept of X (more originally, a universal) is simply the exclusion of all that is not X. Next, exclusion is reduced to difference, in that not-X is simply that which is different from X. Finally, appearance of difference is declared to be error. As a result, exclusion, which relies on difference, cannot be real either, and in turn, since all concepts are exclusions, concepts also all become unreal, which final result is named emptiness. The wording appears to be Bhāsarvajña’s own, but as a decently appropriate representation of the theory of emptiness, the math seems to check out.

³²² This final sentence is icing on the cake: Not only can one not positively apprehend exclusion, which is based on unreal difference, one also cannot meta-cognize this fact of failure, which also requires difference in order to differentiate success from failure.

³²³ See [= PV 3.209–210 ↗]. The first of these two verses is retained as such here, while the second is only paraphrased. My translation of 3.209 basically follows that of Dunne (2004): “Those who analyze reality make a statement that is entailed by real things themselves — namely, that the way in which they think of objects is the way in which those objects disappear” (401). Cp. 3.210 in verse: “*kim syāt sā citrataikasyām na syāt tasyām matāv api / yadīdām svayam arthānām rocate tatra ke vayam //*”

The paraphrase’s inserted *yat...iti* clause here, taken from elsewhere in the PVA — although always in the singular and with *saṃvyavahāra*, rather than in the plural, as V has it here — seems to change the argument somewhat. The original point, if we can trust Dharmakīrti’s later commentator Manorathanandin, is that one cannot deny the fact that objects appear to us (*vṛuc, vprath*) the way they themselves (*svayam*) do (namely, e.g., as gross and variegated), even if it is not ultimately true; see PVV (punctuation and corrections mine): “«*yadīdām*» *atādrūpye pi tādrūpyaprathanaṁ* «*arthānām*» *bhāsamānānām nīlādīnām* «*svayam*» *aparapreraṇayā* «*rocate tatra*» *tathāpratibhāse ke vayam*» *asahamānā api niṣeddhum. avastu ca pratibhāsate ceti vyaktam ālīkyam*” (1938, 210). What one can do, however, is know better, namely by way of the theory of emptiness of inherent existence. By contrast, what Bhāsarvajña seems to view as the problem requiring a rhetorical response (“*kim atra vayam kurmaḥ*” or “*ke vayam*”) is instead the (supposed) fact of disappearing under analysis, hence his following reassurance (in novel words of his own) that, despite this odd result, we should still perform such analysis, because otherwise, we would too naively accept appearances.

that [means of valid knowledge] which is practiced in common" (**sāṃvyavahārikasya**).³²⁴ Thus, it is said (*iti*), the non-dualism [taught] here, which is empty of all final elements of existence (*sarvadharmaśūnya*) and [itself] a mere appearance, is not the same as, e.g. *brahman* non-dualism.

118,5 [Our response to all this] then (*tad*) [is that] this too is incorrect, since also in the Vedas, given the emphasis that "This [world] is only one", neither being variegated nor being capable of transformation is accepted as [truly] real (*vastutah*)³²⁵. On the one hand (**ca**),³²⁶ in the same way that you (**bhavatā**) speak of properties like having a form (*sākāratva*) and being momentary and so on as [being] merely a matter of common practice (**samvyavahāra**), so too in the Vedas [does one speak of] the [*ātman*'s] properties of being permanent and all-pervasive. And on the other hand (*ca*), in the same way that you teach your non-duality via exclusion of what is other,³²⁷ so too in the Vedas does one teach [non-duality] by means of expressions like (*ityādinā*) "it [the metaphysical person (*puruṣa*)] has no smell, no taste, no form", and so on.³²⁸

+118,9 Now [consider that someone says]: We accept emptiness in the sense that (*iti*) nothing whatsoever [really] exists. [To that we would respond:] That is incorrect, since it conflicts with [the very fact of] your articulating a teaching of your own (*svavacanoccāraṇa*).³²⁹ If one says [in response] that articulating [anything] is indeed [a kind of] error, [we would say] even so, that which is mistaken (*yat...upaplūyate*), along with that by means of which it is [mistaken] (*yena...ca*), must certainly exist. For otherwise, this whole [world] would be nothing but unilluminable (**aprakāśya**) darkness.

+118,11 [The Buddhist might ask:] Even if something does exist, so what? [To which we would

³²⁴ See @ PVin 1, p. 44,2–3 ↗: "sāṃvyavahārikasya caitat pramāṇasya rūpam uktam..." (2007, 44). I translate the *uktam* here as occurring outside of the Dharmakīrti quote, although the context in PVin also includes its own *uktam*. For the translation of *sāṃvyavahārika*, see Franco (2021).

³²⁵ Read with E's emendation.

³²⁶ Through the *ca...ca* structure here, two comparisons are adduced in support of the same point: first the positive conventional propositions from each tradition are found to be similar, and then the negative ones are, too.

³²⁷ Read ° *vyāvṛttimukhenādvaitam*, without the extra *ca*, as found in P and E.

³²⁸ Cp. the Viṣṇudharmottarapurāṇa (Madhusudhan & Salma 1912), where the *puruṣa* seems to be equated with the sacred syllable *om*: "tanmadhye param puruṣam aśarīram agandham arasam arūpam asparśam aśabdaṁ sarvagam plutāntam omkāram vinyaset // " (3.352.0.4).

³²⁹ That is, if nothing "exists", then that ostensibly means that nothing, not even words, can have causal efficacy. On the other hand, by using language to convey any idea whatsoever, one implicitly admits that words do have that power. Nāgārjuna's Vigrahavyāvartanī begins with this same objection: An opponent argues that Nāgārjuna's assertion of the emptiness of all things cannot prove anything if the speech act itself is empty (v. 1). Nāgārjuna's response (v. 21) is simply to point out that the opponent seems to admit that the speech is empty for the correct reason: because it exists neither in the causes (*hetau*), nor in the conditions (*pratyayeṣu*), nor in the collection thereof (*hetupratyayasāmagryām*), nor apart from all of those (*pr̥thak*). In other words, the opponent clearly has gotten the right idea, and Nāgārjuna seems more interested in the coherence and correctness of the idea than in the communication paradox presented. See K. Bhattacharya, Johnston, and Kunst (1986) for text (3, 10) and translation (95, 107). Cp. also Westerhoff (2010) for further commentary on the conflation of emptiness with complete non-existence in this same context (11).

respond:] Well surely then (*nanu*) one should not refute the Vedas, since also they contain elucidation of knowledge and ignorance. Then [the objector says]: In the Vedas, non-duality is understood as a rejection of what is other (*anyanirākaraṇa*). On the other hand, in this [teaching of ours], the other is neither affirmed nor negated. Rather, the non-duality is merely a result of making known that the appearance of difference is false. [We would then answer:] That is incorrect, for insofar as difference [itself] is not negated, how could one make known that the appearance thereof is false?

+118,16 Well surely [the Buddhist could respond], as soon as one investigates further (*parāmarśād eva*), that awareness of difference is [known to be] false. To explain: If awareness of difference is [just] awareness of self and [awareness of] other, then one would speak of [both] awareness of self and awareness of other. Moreover, in that way (*tathā ca*), the self-awareness would be based (*niṣṭha*) in its own nature, and the other-awareness, as well, would be based in the nature of the other (*parasya svātmani niṣṭham*), so that (*iti*) the awareness of difference would not even be unitary.

+118,18 Now [an objector challenges the Buddhist]: Awareness of difference is [just] awareness of blue, yellow, and so on. [To which the Buddhist responds:] That's also incorrect, for the following reason: Insofar as (...*iti*) awareness of blue is based in its blue nature, awareness of yellow is based in its yellow nature [and so on]. [In that way] every awareness is only a self-awareness, and so what here is the awareness of difference? Then [the objector says]: The awareness of difference is the singular awareness having for its object several things like blue and so on. [Buddhist answer:] Still, saying that (*iti*) the very same thing (*tad eva...tad eva...*) is [both] an awareness of blue and an awareness of yellow would be merely a statement of synonyms for just the same (*abhinna*) awareness. Nor is it possible to establish things as different (*bhinnavyavasthā*) on the basis of an undivided awareness, since that would be absurd. Therefore, an appearance of difference cannot be correct.

118,24 Such speech as this from the Buddhist, like chewing on [empty] space, appears to be simply incoherent. To explain: First of all, the mental appearance of difference (*bhedapratibhāsa*) occurs to [absolutely] everyone, [so] how does one apprehend that it is not real? Through that mental appearance [of difference] itself, or through another mental appearance? To say that it is through that very one is incorrect, since it [the mental appearance] has difference for its object.³³⁰ For indeed, a mental appearance does not ascertain its own irreality [just] by seeing that the things before it are distinct (*bhinnā ete 'rthā iti*); if it did (*tanniścaye*), then, given the [recognized] disparity (*viparyayāt*), there would be no action [taken].³³¹

+119,4 Then its irreality is ascertained by another cognition. [But in that case] how does that other cognition, which is also restricted to awareness of itself, know another's irreality? If [one explains that] it takes both [cognitions] as its object, then how is that not an experience (*avagati*) of difference? [That is to say] it is a contradiction of one's own words to say that it is not experience of difference even though it takes both [itself and another] as its object. If one says that there is no contradiction because one is speaking [here] by means of an

³³⁰ That is, it does not have a judgment of veracity or the lack thereof as its content.

³³¹ That is, the mental appearance would know itself to be error (*viparyaya*) and to therefore be unreliable as a basis for action.

assumption (*abhyupagama*) of the [idea of the] other, then is that assumption of the other [itself] experienced (*avagata*) as non-different with the assumption of self, or as different? If it is experienced as non-different, then that [assumption of the other] would be none other than the assumption of self. If it is experienced as different, then (*tadā*) the contradiction would [still] be to the same degree [as before] (*tadavastha*).

- +119,10 If one says that this [assumption of the other] is [simply] a reiteration (*anuvāda*) of worldly practice, then is that worldly practice itself (*khalu*) something different from true knowledge (*tattvadrṣṭi*), or is it not something different? If it is not something different, then worldly practice is none other than true knowledge, and so difference would be established just on the basis of such practice. If worldly practice is something different from true knowledge, then how is that [itself] not a difference? If one says that this [distinguishing between truth and worldly practice] is [itself] error, then that [error], too, is either different
(-119,15) from true knowledge or non-different, and so the consequence is as before. It's also not correct to say that there does exist a conventional difference. The convention (*saṃvṛti*), too, is either different from true knowledge or non-different, so the consequence has [still] not gone away.

- +119,16 Therefore, it is preferable that those who advocate non-dualism be silent, very silent, about the other (*para maunam jyāyah*).³³² [Later on] we will refute non-dualism again.
(-119,19) For now (*tāvat*), the proponent of reflexive-awareness is asked [the following]: By what is it ascertained that the determination of difference between known and knowing is false? For starters, it [the falseness] cannot be [ascertained] by it [the determination of difference] itself, since it is by nature an ascertainment of difference.³³³ Nor is it [ascertained to be false] by another cognition, because it is not allowed [by you] that a cognition can have another cognition for its object. Or, if this is assumed, then the inferential reason [for there being no external object, namely] “given the lack of [real] apprehended and appreher” would be unestablished. Now [one might attempt to say]: The cognition does have another cognition as its object through [a kind of] error. [To that we answer:] No [that solution doesn't work], since erroneous cognition is not a means of valid knowledge; this we will also discuss [later] in relation to inference.³³⁴

³³² If the P reading “*varam maunam jyāyah*” were accepted, it would be, as far as I know, the only attested case of the indeclinable *varam* used together with *jyāyas*, somewhat redundantly, in the meaning “it would be better...” Other attested constructions include *jyāyas* by itself (e.g., “*anupetapramāṇasya jyāyasī mūkatā*”, JŚNA 1959, Sākārasaṃgrahaśūtra 80) or *varam* with imperative (e.g., “*varam bāhyārthasyaiva tadrūpam iṣyatām*”, NBhū 120,19–20) or with gerundive (e.g., “*varam [...] bāhyārthānām eva [...] nimittatvam kalpanīyam*”, NBhū 151,5, text according to V) or in combination with various function words (e.g. *na ca*). Also in favor of the V reading *param* is that it can additionally be read in the sense of “great” as a joke about noble ascetic quietisms (whether Buddhist or Vedantic). Even further, in favor of the emendation *para°* is that it can additionally (i.e., not only as a *karmadhāraya* but also as a genitive *tatpuruṣa*) be read as a taunt about a poor theoretical account of the “other”, as finally translated here.

³³³ This point was made just above; see footnote 330.

³³⁴ See NBhū 195,6ff, where reference is made to PVin 2.1: “...*bhrāntir api arthaśaṃbandhataḥ pramā*” (2007, 46).

§

Error is impossible if difference is negated.

119,24

And [just] what is this erroneous cognition? Is it just the [cognition's] apprehension of its own form, or is it superimposition of its own form onto something else, or is it superimposition of a different form onto itself? First, error is not just the [cognition's] apprehension of its own form, because then it would result that all cognitions would be erroneous. Nor is error the [cognition's] superimposition of its own form onto something else, since, if that something else has not been [previously] apprehended (*adr̄ṣṭa*), then the superimposition of the [cognition's] own form onto it will not be possible. For indeed, one does not observe the superimposition of any form onto a thing which is completely unapprehended (*anupalabdha*).

+120,2

Then error is [a cognition's] superimposition of a different form onto itself. [But] also in that case, is the superimposition of a form that has already been apprehended (*dr̄ṣṭākāra*) or of a form that is not yet apprehended? First, the superimposition of an apprehended form does not work, since a false form is not apprehended. For indeed, in your view, never is the falseness of the determination of difference between apprehended and apprehender directly perceived (*adhyakṣeṇopalabdhā*) such that there could be [known to be] superimposition of form upon another cognition.³³⁵

+120,5

Then the superimposition is of a form that has not [yet] been apprehended. [To this we reply:] That cannot be, since we do not observe this. For indeed, in every case of erroneous cognition, one observes the superimposition upon e.g. a conch only of e.g. a yellow form that has been apprehended [before elsewhere]. Also in such cases as [seeing two] moons, there is superimposition only of properties, like for example two-ness, that have been apprehended in other cases. Also (*ca*), if error were the superimposition of a form that has not [yet] been apprehended, then, like the erroneous cognition of the two moons etc.,³³⁶ it [the erroneous cognition] would not agree (*avisaṃvādinī na syāt*) with the form of that [real thing, e.g., the moon]. And as result of that [disagreement], the cognition that the determination of difference between apprehended and apprehender is false would certainly not be a means of valid knowledge,³³⁷ and [then] given the lack of epistemic instrumentality of that [cognition of falseness], the determination of difference between apprehended and apprehender would be in fact correct.

+120,10

Also in the case of [systematically] erroneous cognition about [there being] external objects, how is the form of an external object, which is [supposedly] not [ever] apprehended at all (*sarvathānupa* ***labdho***), superimposed [onto anything]? For indeed, we never observe that the form of a particular jewel in the king's treasury is superimposed [onto anything] by

³³⁵ The argument obviously cannot be that the superimposition cannot happen without one knowing that it is false, hence my translating the result clause here in epistemological terms. However, it is not yet clear to me what exactly in the Buddhist's view this argument depends on.

³³⁶ Whereby a pair of moons has never really been perceived by anyone.

³³⁷ According to Dharmakīrtians, a cognition can be erroneous (*bhrānta*) but still a means of valid knowledge as long as it agrees with, or "does not belie" (*avisaṃvādin*) one's practical expectation of the phenomenon in question. For Bhāsarvajña, however, the word *avisaṃvādin* is to be understood in terms of a correspondence theory of truth; cp. footnote 518 below.

one who has not [ever] seen it (*ataddarśin*). Moreover, when there is an erroneous cognition [of an external object], is the form of an external object being superimposed by another cognition, or does it [the erroneous cognition] itself have that form? First, it [the form of the external object] is not superimposed by another cognition, since it [the other cognition] does not take that [erroneous cognition] (*tad°*) as an object. For indeed, like by the visual faculty onto taste and the like, no form is superimposed by anything onto something that is not the [proper] object (*avīṣaya*) [for that superimposing factor], and in your view, a cognition is not [ever] the object of another cognition.³³⁸

+120,15 So then, one says, the error itself [ostensibly] has that form. [But] no [that cannot be], because multiple forms (*anekākāra*)³³⁹ are contradictory for something with an undivided nature. Now [the Buddhist objects]: It is merely a non-existent (*avidyamāna*) multiplicity of forms that appears. [To which we respond:] No, because that would result in an [undesirable] opportunity for the emptiness of all things, and the problem with that (*tatra*) has [already] been stated.³⁴⁰ Moreover, this would amount to (*syāt*) the position that the object of error is something unreal (*asatkhyātivāda*), and that is contrary to your own doctrine.

+120,18 Then [the Buddhist suggests]: Having multiple forms is accepted [by us] as the nature of cognition itself, and nothing is contrary to its very own nature. [To this we answer:] Well then clearly, if that's the case,³⁴¹ what's the point of transgressing all conventional limits (*maryādā*)? It would be better that one instead accept this [having multiple forms] as being the nature of none other than the external object itself. If one assumes this, then there is a contradiction neither with everyday life, nor with reason.³⁴² For indeed, one who assumes that a property and a property possessor are the same cannot avoid the contradictoriness of a singular thing having multiple forms, because [otherwise] it would result that there would be no problem with a singular thing having the nature of the entire world. Therefore, if one accepts that the form of the whole, as a locus of multiple properties, is indeed unitary, then there is no contradiction whatsoever.³⁴³

121,2 Also when it was said [that there is no whole] because, when analyzed (*vi[vec]yamāna*) with the mind, the external [form] is impossible, whereas for its part (*tu*) cognition cannot be analyzed [at all], that is an ill-considered statement. For indeed, on the position in favor

³³⁸ The argument is somewhat subtle: Because taste is not an object of the visual faculty, the visual faculty cannot superimpose its own type of object (namely, visible form) on top of it. Similarly, one cognition (here, the erroneous one) is not the object of another cognition, and so that hypothetical other cognition cannot project its object (in this case, a particular form of an external object) onto it.

³³⁹ Read without the extra *bhīnna* added by E. One is also tempted to emend an extra *tva*, as in “for X, having the property Y is contradictory”, but it is not strictly necessary. Finally, cp. also footnote 299 above on the translation of *aneka* in this context.

³⁴⁰ This seems to refer above to 118,9, where the only argument against emptiness offered was the relatively weak one based on the idea that the mere act of speaking disproves the theory.

³⁴¹ That is, if the argument will come down to arbitrary claims about the nature of things. For more on this strategy in Indian philosophy, see the discussion of “because-it-does” arguments by Patil (2011, 156–57).

³⁴² This phrase, marked by *iti* in P, has a formulaic ring. Cp. “*na śāstravirodhah, na yuktivirodhah*” in Durvekamiśra’s Dharmottarapradīpa (Malvania 1955, 148).

³⁴³ That is, for the *nirākāravādin* (e.g., Naiyāyika), the solution is to simply abandon reliance on forms (*ākāras*) and instead rely on real universals, of which several can inhere in a locus without comparable problems.

of reflexive awareness, cognition, first of all, given that it is suited for apprehension (*upalabdhiyoga*), can [at least] sometimes (*kadācit*) [indeed] be analyzed. On the other hand, how can the external [form], being by nature utterly imperceptible (*anupa labhya*), [ever] be analyzed? For indeed, it's not possible to analyze e.g. an ornament of the king's harem (*antaḥpura*) without having seen it.

§

Analysis cannot prove non-existence of unreal things.

+121,5 If one says that it is [in particular] the form of cognition agreed to be (*abhimata*) external [to the cognition] that is perceptible (*drṣya*) and can therefore be analyzed, then [we would answer that] as a result of that [form] being analyzed, does that [supposedly external form] itself not exist, or does another thing [not exist]? That it would be that [form] itself [that doesn't exist] is not correct, since this would mean that cognition [actually] has no form (*nirākāra*), and then it would be a contradiction for something variegated to be unitary.³⁴⁴ [But] neither does another thing [not exist], for if, when one thing is analyzed, it proves the non-existence of another, then the three worlds would end up not existing.

+121,9 Now [one might say]: What is being negated is [only] that this [form] itself is something other than cognition. [We would answer:] No [this is incorrect], since that is not what is being discussed. Neither its [the form's] being something other than cognition nor its not being so (*arthāntara tvam an arthāntaratvam vā*) is up for discussion here. Rather, what is being discussed is how a singular thing could have a variegated form. [And] concerning that, it has already been stated [by me] that (*ity uktam*) a variegated form, insofar as it is not something different from cognition (*jñānānarthāntara*), is completely impossible.

+121,12 Then [one says]: It is on the basis of analysis by numerous people that the external [object] is [found to be] impossible. By what, though, is the cognition analyzed, which ceases [to exist] once it has by way of reflexive awareness alone known itself to have a manifold form? [Our answer:] That is incorrect, for if cognition is not the object of another cognition, then none other than the view of non-duality would result. Alternatively, if it [cognition] is in a certain sense (*kathamcit*) [able to be] the object [of another cognition], then in just that same sense is there [able to be] analysis [of that cognition], so why is the analysis [of cognition said to be] impossible?

+121,15 Also, [the claim] that (*iti*)³⁴⁵ the external [form] is [found to be] impossible on the basis of analysis by numerous people is incorrect because it is contradicted (*vyāhata*) [by that very fact of experience]. For indeed, how could that which is the object of the cognitions of numerous people not exist? If one says that it is through [a kind of] error that it is the object of the cognitions of numerous people, then in that case, the analysis [itself] is erroneous, and because it is therefore not a means of valid knowledge, it cannot establish

³⁴⁴ Compare above at footnote 343. To be clear, it is not a problem for the Nyāya view that cognition has no form. Rather, it is only a problem for the Buddhist, for whom a representative form in cognition is the only possible mechanism of bringing the variously colored factors together to achieve the appearance of unity.

³⁴⁵ Read just one *iti*, with the mss.

[anything's] non-existence. If one says [quoting Dharmakīrti] “Even an error, through a [certain] relation to [practical] objects (*arthasambandha*), is [in fact able to be] valid knowledge (*pramā*)”,³⁴⁶ [we would answer that] this is incorrect, since error has no relation [whatsoever] with (*saha*)³⁴⁷ the external object [that you say doesn't exist]. Or, if it [error] (*tat°*) does have a connection, then that [external object] (*tasya*) is not non-existent.

121,21

Moreover, is the whole analyzed by thinking about the whole or by thinking about the parts? It's not, first of all, by thinking about the whole that the whole is analytically established not to exist, because that [thinking about the whole] is by nature an apprehension (*grhītirūpa*) of its existence, like a thought of blue etc.³⁴⁸ If, in turn, a thing's non-existence is [able to be] established by thinking about its existence, then it would [equally] be the case that its existence is [able to be] established by thinking about its non-existence. [What] a nice establishment [that would be] then!

+121,25

Now [consider that]: It is through a thought about its non-existence that it [the whole] is analyzed not to exist. [Our answer:] That may be true (*bhavatv evam*) for a case where a non-erroneous thought about non-existence does [in fact] occur (*asti*), and yet (*ca*), there does not occur in every situation [such] a thought about the non-existence of e.g. a pot. Therefore, non-existence is not [so] established in every case [of a whole].

+122,2

Then it's by thinking about the parts that it [the whole] is analyzed to not exist. [Also] that is incorrect, since a [positive] thought about the parts provides (*vividhā*) existence only to the parts themselves; it can neither provide nor deny existence to the whole, since it [the thought about the parts] does not have that [whole] as its object.

122,5

Now one says: When the parts are being apprehended, the whole is not apprehended, [and] therefore it [the whole] certainly does not exist. [To which we answer:] Similarly then, when smell, touch, and visible form are being apprehended, taste is not apprehended, nor is the cognition of another person,³⁴⁹ [and] therefore it ends up that those two also do not exist. If one says that they don't fail to exist, since another sense faculty [namely, the gustatory sense] apprehends the taste, and the other person apprehends his [own] cognition, [we answer that] similarly then, neither does the whole fail to exist, because it is apprehended by another cognition. To explain: It is only in relation to the parts that there occurs the mental appearance with divided form (*bhinnākāraḥ pratibhāsaḥ*), whereas in relation to the whole, there occurs a mental appearance with an undivided form.

+122,10

If one says [that this is] because it [the whole] is the object of an undivided sense faculty, [we would answer:] no, [this reason doesn't work] because, given [the appearance at other times of] blue and yellow etc., it is inconclusive.³⁵⁰ Moreover, how could there be a

³⁴⁶ See \cong PVin 1.2 →, and also compare footnote 334 above.

³⁴⁷ Do not read the *hi* edited here by E in place of *saha*. It has no place in a causal ablative clause.

³⁴⁸ The argument seems to be that, in considering whether a thing exists or not, one must first implicitly entertain the positive idea that it does exist, which then amounts to an apprehension of that very existence.

If the argument does work this way, then it would be vulnerable, at least at the surface level, to the same weaknesses as the “Ontological Argument” advanced by St. Anselm and Descartes; see e.g. Nolan (2021).

³⁴⁹ Of course, yogis might in fact be able to do both, but this is irrelevant here.

³⁵⁰ That is, the undivided nature of the visual faculty would equally participate in creating appearances of distinct individual colors, and so it cannot by itself account for when something appears as undivided.

division of the sense faculties themselves? If one were to say [that it is] on the basis of a difference in the mental appearance, then [we would say that] one can [equally] let that same thing [i.e., the difference in mental appearance] be [an inferential mark] for something else (*anyatrāstu*)³⁵¹. What's the point of suggesting a division in the sense faculty?

+122,12 Now [one might say]: If the whole exists, then why (*kim iti*) does it not appear to just anyone as something separate from the parts (*avayavavyāvṛtta*)? [To this we respond:] who says that it appears as such only to me? If it is [then] said that “This is an erroneous cognition that you are having”, [we would answer:] it is [in fact] none other than your own (*tavaiva*) apprehension of non-difference that is erroneous cognition. How could this cognition of mine, which undoubtedly agrees with everyone's worldly behavior — [namely, the explanation] that this singular cloth has been brought about by numerous threads — be erroneous cognition? Even such arising [of cloth from threads] is impossible [for you] (*anupapannah*) as a result of [our] negating [your doctrine of] momentariness. Therefore, it's not the case that the non-existence of the whole follows from analysis.

+122,16 By this [same argumentation] is refuted (*apāsta*) [also the idea] that when the threads are pulled apart (*tantvapakarṣaṇe*), the thought of the [whole] cloth is impossible. For indeed, if by pulling apart is meant the [physical] unraveling (*viśleṣaṇa*) of the threads, then it is indeed accepted [by us] that its [the cloth's] non-existence results from the termination of conjunction [among the threads]. And yet (*ca*) it's not the case that what is destroyed [at some time] is utterly non-existent [at all times], since that would result in the total non-existence of cognition, as well.³⁵² On the other hand (*tu*), pulling apart [only] with thought, since it is not different in meaning from analysis, is negated [as a way of proving the whole's non-existence] as soon as that [analysis] is [so] negated (*tanniṣedhenava*)³⁵³.

§3.4 Real Support (*āśraya, ādhāra*) for Many-to-One Relations

Ontologically real support of one by many best explains apprehension of difference.

§

Cognition can have multiple objects as properties, including other cognitions.

122,22 Also, when it was said, in order to establish [that cognition is] reflexive awareness alone,

³⁵¹ Specifically, for different external objects.

³⁵² In Nyāya, cognition is definitely momentary, generally speaking. See e.g. NS 3.2.42–45 and the NBh thereon.

Also, in later Nyāya, the words (*pra)dhvamṣa* and *atyantābhāva* become technical terms designating distinct kinds of absence. In short, one can contrast three kinds of relational absence by their temporal characteristics: 1) *dhvamṣa*, “destruction” or “produced absence”, which has a beginning but no end (e.g., an absence of pot after a pot is smashed by a hammer); 2) *prāgabhbāva*, “prior absence”, which has an end but no beginning (e.g., an absence of pot before a pot is finished being made); and 3) *atyantābhāva*, “constant absence”, which has neither a beginning nor an end (e.g. cowness in a pot). For a good discussion of this, see Patil's forthcoming *The Logic of Liberation: Action, Pleasure, and Hermeneutics in Indian Philosophy of Religion*, ch. 3.

³⁵³ Read this instrumental noun as a gerund with temporal meaning, i.e., as equivalent to *tan niṣedhyāiva*.

that [cognition] is both self- and other-oriented (*svābhimukham parābhimukham ca*) and so on, in response to this (*tatra*) we will say that cognition is [in fact] not self-aware [at all]. For that reason, it [cognition] is not accepted [by us] as being self-oriented. [On the other hand] being other-oriented most certainly is accepted as a property of cognition, for which there is the technical notion of (...*iti samjñā*) “[the relationship of] being object and object-possessor”. [And] because there is awareness of the object even when there is no awareness of that [cognition], there is no infinite regress.

+123,3

Furthermore (*ca*), as we will explain [later], given that property and property possessor are distinct, it is not true that [merely] on the basis of a distinction of properties [e.g., a cognitive object] there is [necessarily] also a division of the property possessor [e.g., the cognition]. And [in fact] because [we observe that] multiple particular objects like blue, yellow, and so on do appear in a cognition despite it being undivided, therefore it also incorrect to say [as you did before]³⁵⁴ “Nor is it possible to establish things as different on the basis of an undivided awareness, since that would be absurd.” Therefore, there is no problem if a cognition, even though it is unitary, is aware of numerous objects.

§

The residence argument against the whole has unestablished terms.

123,8

Also, when it is said while refuting the whole³⁵⁵ [that it doesn't exist] “because there is no possibility of [it and the parts] residing [in relation to each other] (*vr̥tyyanupa[patteḥ]*)”, is that an independent proof (*°sādhana*) or is it a reduction to an unwanted consequence (*prasaṅgāpādana*)? First of all, [as] an independent proof³⁵⁶ [it] cannot be right, for indeed, it's not the case, in your view, that anything at all [ever] resides in anything [else] (*kvacit*), whether completely or partially, and so (*ity atah*), on the basis of [such] residence being [totally] impossible, every last thing would end up not existing.

+123,11

Nor is it [proper as] an argument by unwanted consequence (*prasaṅgasādhana*), since there is no [established] pervasion like [there is] in the case of the light and lamp.³⁵⁷ Alternatively, if one assumes [such] a pervasion [as established],³⁵⁸ then [even so] there is no [properly] complete absence of the [pervading property, namely] residence of the whole [by way of it doing so] either completely or partially in quite the same way as (*eva*) [one

³⁵⁴ See above at 118,22–23.

³⁵⁵ See above at 104,16–105,1.

³⁵⁶ In this independent proof or positive inference (*svatantrasādhana*), the reason property (*hetu*) would be non-residence (*avṛtti* or *vr̥tyyanupapatti*), and the target property (*sādhyā*) would be non-existence (*asattva* or *abhāva*). The inference could then be formulated as follows: Whatever cannot reside, cannot exist. The whole cannot reside, therefore it cannot exist.

³⁵⁷ For this light and lamp example, see above at footnote 253.

³⁵⁸ For this contrapositive argument by unwanted consequence (*prasaṅgasādhana*), the pervading property (*vyāpaka*) is residence (*vr̥tti*), and the pervaded property (*vyāpya*) is existence (*sattva* or *bhāva*). The argument could then be formulated as follows: If the whole were to exist, then it would have to reside (in relation to its parts). However, given that the whole cannot reside (by satisfying either of the exactly two possible options for doing so), therefore it does not exist.

can establish such absence of the pervading property in] the case of the light and lamp [example] (*prabhā pradīpavat eva*).³⁵⁹ For indeed, [it is true that] if a pervading property (*vyāpaka*) is established to not be present [in a given case], then it is correct to conclude that the pervaded property (*vyāpya*) is not present [either]. And yet (*ca*), if [this] residence [property] is completely unapprehended,³⁶⁰ then its being a pervader [of existence (*sattva*)] cannot [ever] be known, [and] so (*tat*) how could the whole [be said to] not exist on the basis of its failing to reside [in relation to its parts]? Even if one were to know it [i.e., residence] to pervade [existence] in a certain case (*kvacit*), [still] the whole is not [therefore] totally non-existent [in every case].

+123,15

If one were to say [that it is a valid argument by unwanted consequence] because the [realist] opponent accepts that [such] residence [logically] pervades the [existence of the] whole, [we would answer that] that's incorrect. Indeed, [on the one hand, it is true that] once an opponent accepts in this way (*evam*) that [for example] primordial matter (*mūlaprakṛti*) pervades all [evolutionary] effects, then if that [primordial matter] should cease to exist (*tannivṛttau*), then [for that opponent] every [evolutionary] effect, whether sentient or insentient (*bodhābodha*) by nature, would also fail to exist. And yet (*ca*), it's not the case that one's opponents [in this case, we Naiyāyikas] accept the whole as [only] residing either entirely or partially, and so it's not appropriate to proclaim (*udbhāvana*) a contradiction resulting from something accepted by the opponent. For indeed (...hi) what [we] opponents [actually] do accept is that the undivided whole resides in the different parts by means of none other than inherence-[type] residence (*samavāyavṛtti*), and we will explain [later] that it is [in fact] this [whole] that inheres (*samavāyah...asya*).³⁶¹

§

A single thing can be supported by multiple things and still be independent.

123,21

So, too, is it through conjunction[-type] residence (*samyogavṛtti*) that a rafter (*vamśa*)

³⁵⁹ For the contrapositive form of the light and lamp example, the pervading property (*vyāpaka*) is absence of light (*prabhāvāḥ abhāvah*), and the pervaded property (*vyāpya*) is absence of lamp (*pradīpābhāvā*). The argument could then be formulated as follows: If there were no lamp, then there would have to be no light. However, given that there is no absence of light (i.e., given that there is light), therefore there cannot be an absence of lamp (i.e., there must be a lamp). Thus, establishing the absence of the pervading property in the case of the light and lamp example is as simple as noticing the positive presence of light. By contrast, it is not so simple to apprehend the non-residence of the whole.

³⁶⁰ Namely, as a property of the whole, residence is imperceptible for the Buddhist for the above-stated reason that the very concept of residence (e.g., by inherence) is rejected by the Buddhist in all cases.

³⁶¹ That is, Bhāsarvajña says that it would already be incorrect for the Buddhist, who does not accept residence at all, to use it in an inferential argument against the Nyāya-Vaiśeṣika opponent; cp. NBhū 150,14ff. below, where Bhāsarvajña explicitly attributes this methodological point to Dignāga. However, what is even more incorrect is that the Buddhist does so by way of a characterization of residence — namely, by way of a binary choice between “entire” or “partial” residence — that is irrelevant and unacceptable to the Nyāya-Vaiśeṣika opponent and which ignores the characterization that the opponent would actually subscribe to, namely in terms of inherence. In other words, even worse than making an argument with terms that are not equally established for both parties (*ubhayavādyasiddha*), the Buddhist makes one with terms that are not acceptable to either party. On the legitimacy of such destructive *prasaṅga* and *prasaṅgaviparyaya* arguments as used by Buddhists, see Iwata (1993).

resides on its [support] columns (*stambhas*), [and] not partially [as it might seem], since it is not the single part that resides (*ekadeśasyāvṛtti*).³⁶² In that case [one might wonder], why do we think that (*katham...iti pratītiḥ*) the rafter (*vamśāḥ*) resides partially on its columns?³⁶³ This [thought] is not difficult [to account for]. It's true (*khalu*), for a whole [e.g., a rafter], the [component] part (*avayava*) is [a kind of] part (*deśa*), and for one beholding something [e.g., a column] conjoined (*samyuktam*) with that one part (*avayava*), the thought occurs in that way.³⁶⁴ But [in fact] it's not the case that the residence or the cause thereof occurs in the single part (*ekadeśe*) alone, because then conjunction would end up failing to be possible for [partless] things such as atoms, ether, and so on, [and] because of that, all effects [produced from conjunction] would end up not arising whatsoever.

124,3

Then [one might say]: Whatever is one, resides in only one thing, like [a given instance of] color [resides in only one substance]. Therefore, one who accepts the oneness of e.g. the whole should not accept that it resides in multiple things.³⁶⁵ [Our answer to this would be:] No [this argument is wrong], because it [the residing in multiple places] is established by the same [type of] evidence (*pramāṇa*). [That is to say] on the basis of the very same [type of] evidence by which it is established that color resides in one thing, why is it not [also] accepted as established that e.g. the whole resides in multiple things? Alternatively, just as the basis of color can be in an inherence relation (*rūpāśrayasya...samavāyah*) with multiple things [namely, other qualities] like smell, taste, etc., so too can e.g. the whole [be in an inherence relation] with multiple bases.³⁶⁶ What contradiction is there in this?

124,8

But surely [one might further object], everyone has the thought that the branch is on the tree [and] the horn is on the cow, so how could the parts be the basis [of the whole]? [To this we would respond:] No [that's not decisive], because [there is also the possibility] of thinking about it differently. The idea here is that (...*iti*), if there is a whole like e.g. a tree, being the way that it is (*yathāvasthita*),³⁶⁷ and if people are looking at a part like e.g. a

³⁶² That is, when a whole is residing in relation to something, it is the whole itself that does so; the parts, whether individually or together, do not do this residing on the whole's behalf. Cp. the issue of the whole being a basis for its own conjunction (*samyogāśrayatva*) above at 112,6–7.

³⁶³ I.e., with one part on each column.

³⁶⁴ The text seems a bit unclear here, perhaps because the intention is to state a general principle. V ends up with *vamśa* for *ca sam*°, but that cannot be right, as the whole is not conjoined to its own parts but rather inheres in them. One could also emend to *ca tam* (i.e., for masculine noun *stambha*) instead of *ca sam*°, but either way, the phrasing remains a bit vague, and the placement of the sentence-connector *ca* seems surprisingly late in the sentence.

³⁶⁵ The *ādi* here also notably includes universals (*sāmānyas*), which are also accepted by the realist Naiyāyika as being both one and residing in multiple places. That being said, it is important to remember that "color" (*rūpa*) here does not mean a particular universal (*jātivīśeṣa*) like redness, but rather an individual instance of the particular quality (*guṇa*) color.

³⁶⁶ This second argument intentionally disregards the directionality of inherence, utilizing the neutral construction *samavāya* + genitive + instrumental with *saha*, as part of emphasizing a more flexible approach to the concept of support (*āśritatva*). Cp. the similar statement soon after at 125,5–6: "*avayavyādes [...] ekasyānekaiḥ saha [...] sambandhaviśeṣaḥ [...] sādhyate*". That is, in this argument, what's important is that the many and the one can relate to each other unproblematically; the directionality is incidental.

³⁶⁷ That is, vertically oriented and resting on the ground such that upper parts appear to be supported in a certain way.

branch which is [in fact] not falling on account of the opposition (*pratibandha*) provided by its connection with its [the tree's] lower parts, the thought occurs to them that the [whole] e.g. tree is the basis of that [branch]. But [in a more important sense] the parts are the basis [for the whole], in that (...*iti*) only when they are present does the whole exist (*avasthiti*), whereas (*ca*) when they're not, then it doesn't. It's in this way (*etena*) that also [the qualities] color and so on are explained to be reliant (*āśrita*) on substance.

- +124,12 On the basis of that view (*darśana*), even permanent things can be reliant [on other things].³⁶⁸ In that way, even though universals are permanent, it is only on the basis of apprehending them in substantial objects (*pindas*) that they can be the object of effective practical behavior (*sadvyavahāra*), [and] not in the absence of physical objects. For this reason, one speaks practically of (*vyavahriyate*) [universals] being reliant on those [physical objects]. Therefore, [when Dharmakīrti says]: "It [earth] might be (*syāt*) a support for things like water, given the counteracting (*pratibandhataḥ*) of [e.g. water's] movement [by e.g. an earthen jar], [but] for those things without motion, [like] qualities, universals, and actions, what's the use of supports?"³⁶⁹ also this is an ill-considered statement. For indeed, it's not the case that a support is known among ordinary people only as that which counteracts heaviness, but rather also differently, for example [in the cases of] a face [occurring] in a mirror, pain etc. [occurring] in the body, [and] a flash of light [occurring] on a sword. Therefore, one can to that extent carefully (*yatnena*) establish for the whole, which is unitary, a particular relation with multiple things [i.e., the parts], just as [one can do] for substance, which is unitary, with multiple things like color and so on. For each case (*tatra*), there should [simply] be assumed the appropriate (*yathāsamṛbhavam*) support-and-supported relation.
- (-125,3)

- 125,8 Now consider that the inherence in a substance also of things like color is not accepted [by Buddhists]. In that case, what basis is there for [speaking of] the consequence [for us] that "Whatever is one, is located in only one thing"?³⁷⁰ Moreover, does [an instance of] color produce another [instance of] color with all of itself, or [does it do so] partially? If the color completely exhausts itself (*paravasita*) in the production of another [instance of] color, then it would not be able to produce [in addition to new instance of color] e.g. a cognition.

³⁶⁸ Cp. NBh 4.2.12: "*nityeṣu dravyaguṇeṣu katham āśrayāśritabhāvah?*..." The answer given is that the support-supported relationship is extrapolated from the better known cases of impermanent things to the permanent ones.

³⁶⁹ See [= PV 2.66 ⇔], where (following Nagatomi) the point is to argue that, in the same way that earth is not properly speaking a support of water in the case of a jar — instead, the continuum of the former is simply a concomitant cause of the continuum of the latter being as it is — so too is the body (which is considered to be basically made of earth) inadequate as a proper support for cognitive things (especially compassion). Here, the argument at first entertains the notion of support for earth and water — the *syāt* supposes it, and the **taḥ* gives the seeming justification — before the second half concludes that this does not help in other cases where physical motion is irrelevant. The reading in **taḥ* here is supported by the edition of the PV itself, but the alternative readings of P (*pratibandhanah*) and, secondarily, Tattvasaṃgraha (*pratibandhakaḥ*, v. 802, Krishnamacharya 1926) facilitate the same point (Bhāsarvajña himself utilizes the latter in the following sentence).

See also Franco (1994; 1997, 317ff.), who argues that Dharmakīrti in these verses has multiple opponents in mind, including Nyāya-Vaiśeṣika, Mīmāṃsā, and Cārvāka, which causes difficulties for commentators.

³⁷⁰ That is, if *samavāya* is impossible for the Buddhist, then he cannot argue in terms of one thing "occurring" or "residing" (*vartate*) in another.

For indeed, its nature is not [able to be] divided.³⁷¹ Nor [does it do so] partially, since that which is indivisible doesn't have parts, and also because [even assuming such parts] only the part would end up being productive. As for the cognition [of color], too (*api*), will it have arisen entirely from the color or [only] partially? If it has arisen entirely from the color, then it does not end up as having arisen from another [previous] cognition [too]. Nor [can it have done so] partially, since it [the cognition] has no parts.

125,15

If one objects that this is not a consequence [that applies] for the [Buddhist] proponent of consciousness-only, [our answer is that] no, [it does in fact apply, because] even on that view (*tatrāpi*), if a single cognition is produced by multiple cognitions, produces multiple cognitions, and makes known multiple forms, the consequence does not go away. Alternatively (*vā*), if this [all] is not accepted, then none other than non-dualism would result, and the set of problems with that (*tatra...doṣa jātam*) has [already] been stated and will be discussed [again later]. Through this [same argumentation], also [one thing] being [both] chief cause (*adhipatipratyaya*) and immediately preceding homogeneous cause (*samanantarapratyaya*) should be viewed as impossible. Therefore, for one [desirous of] refuting the whole by way of a dilemma about residence (*vṛttivikalpa*), also his own teaching ceases to have meaning.

+126,1

If a cognition that is undoubtedly singular is [according to you simply] like that by nature (*tādṛktvabhāva*), then also the nature of the whole being like that (*tathābhūta*) should not be questioned, given that the theoretical benefit is the same. [As Kumārila says:] “When reflecting on something of the sort where (*yatra...tādṛgarthavicāraṇe*) a problem is the same for two [options] and so is (*ca tat*) the refutation, no single one [of the two options] (*naikah*) ought to be subjected to [special] scrutiny.”³⁷²

126,6

[One might suggest that] in that case (*tarhi*), the whole does not exist separately for the following reason (*itah*): because it is not apprehended as long as there is no apprehension of the parts.³⁷³ [For indeed] that which is not apprehended when there is no apprehension of another thing is not separate [from that other thing], like the additional moon (*candrāntaram*) [that is not apprehended] when there is no apprehension of the [real] moon. [To this we would respond:] This is not a [valid] inferential reason [at all], since it is inconclusive. To explain: [It is true that] as long as there is no apprehension of one of the Pleiades, one does not apprehend another of the Pleiades, and yet (*atha ca*), the Pleiades are [indeed] separate. Furthermore (*ca*), the reason is unestablished. To explain: Even when from afar there is no apprehension of the parts, e.g., the threads, the whole, e.g., a cloth, is [in fact] apprehended.

³⁷¹ I.e., with one part producing color, the other a cognition.

³⁷² See = ŚV śunyavāda 252 ↗: “*tasmād yatrobhayor doṣaḥ parihāro 'pi vā samah / naikah paryanuyok-tavyas tādṛgarthavicāraṇe //*” whence the emendation here to “yatrobhayor”. The reading attested by the NBhū mss., with relative-correlative clauses consisting in *yo doṣaś ca parihāraś ca ...*, *tādṛgartha*°, simply does not make enough syntactic sense: “which problem [is the same for both] and [which] refutation [is similarly the same] — when reflecting on something of that sort...” etc. That is, locative *yatra* is indispensable for establishing the context “in which” a problem and solution are the same for two options.

³⁷³ See ~ NS 4.2.9 ↗ and cp. also ~ NBh 1047,3 ↗. Cp. also ÷ TUS 236,11–12 ↗, where the shape and import of the argument are basically the same, but the phrasing of the subject (*ghaṭasāmānya*) is quite different.

§

Atoms can't explain apprehension of wholes without real intermediate wholes.

- +126,10 Moreover (*ca*) it's not the case that one can construe (*kalpayitum*) an apprehension of e.g. threads even without their [directly] appearing [to the mind] (*apratibhāsane*) in the form of e.g. threads (*tantvādi rūpeṇa*)³⁷⁴, because that would be absurd. [As the Nyāyasūtra records:]³⁷⁵ “If one says that there is apprehension [of the whole] in the same way as in the case of an army or a forest, [one can answer that] no [it is not like that], because atoms are [forever] beyond the scope of the senses.” [In other words] one might have the following idea: Although elephants, horses, chariots, etc. [in the case of an army] and trees [in the case of a forest] are not seen as such (*tadrūpa°*) from a distance, it is nevertheless not about anything other than them³⁷⁶ that one apprehends “army” and “forest” [respectively]. In just the same way, even though from a distance there is no apprehension [of the parts] in the form of e.g. threads, it is nevertheless precisely about them that one has the thought e.g. “cloth”.
- +126,14 [But] given that the e.g. threads are [themselves] also (*api*) [necessarily] something over and above [their constituent] atoms, if one does not accept the [existence of the] whole, then they [the threads] themselves do not exist, [and so] how in turn could the thought “cloth” be about them? If one says that it [the thought] is about none other than the atoms themselves, [we would then answer] no [it cannot be], because atoms are beyond the scope of the senses. After all, not even an erroneous cognition can arise from a sense faculty concerning things that are beyond its [proper] scope. For indeed, there cannot occur [any] visual cognition in relation to a taste, for example. And in the same way that it's not possible for a sense cognition, whether erroneous or not, to be about atoms that are [in their own right] beyond the scope of the senses, so also [can there not be cognition] concerning the qualities possessed by those [atoms] (*tadgata*). Hence (*iti*), if the whole [object] does not exist (*avayavy abhāvāt*), then [its qualities] sound, pleasure, and so on for their own part cannot arise, and thus (*iti*) there would also be no apprehension of them. Precisely this is what he [the Sūtrakāra] says [with]: “Everything fails to be apprehended if the whole is unestablished.”³⁷⁷

- +126,20 If you suggest that it [the apprehension of the whole] is like a *timira*-sufferer's apprehension in relation to a collection of hairs,³⁷⁸ then you [must] think [the following] (*atha*

³⁷⁴ The alternative reading *tattvādirūpeṇa* in P could also have been understandable if only the *ādi* had not been there. I.e., with *tattvarūpeṇa*, it would have meant: “Without their appearing [directly to the mind] with their true form.” This *tattva* is most likely anticipating the similar *tadrūpa°* below.

³⁷⁵ See [= NS 2.1.36 ←]. Despite having component parts, armies and forests are not considered to be genuine wholes in their own right, i.e., in the sense of consisting in a new substance. Instead, they are collectives. More to the point here, however, the reason they are not a good analogy for thinking in general about wholes made of atoms is that armies' and forests' component parts are perceptible once one gets closer, whereas atoms are never directly perceptible.

³⁷⁶ I.e., about the medium-sized real things that make up the collective, and not about the underlying atoms.

³⁷⁷ See [= NS 2.1.34 ←]. According to Vātsyāyana, “everything” here means the six *padārthas* he accepts: *dravya*, *guṇa*, *karma*, *sāmānya*, *vīśeṣa*, and *saṃavāyāḥ*.

³⁷⁸ See [= NS 4.2.13 ←]. In contrast to the previous discussion about apprehending hairs (ocular floaters)

manuṣe): In the same way that, for one whose visual faculty is afflicted with *timira*, hairs do not appear individually but do appear [as] combined, so too do atoms [appear for normal people only as combined]. And yet (*ca*), in the same way that hairs do also appear individually for one whose visual faculty is not afflicted [with *timira*] and so are not completely beyond the scope of the senses,³⁷⁹ so [too] do atoms appear individually for a yogi, and so they also are not completely beyond the scope of the senses.

+127,2

In that case then, it would result that nothing at all would be beyond the scope of the senses, since all things are objects for the sense faculties of yogis. And then, like the atoms, absolutely all objects ought to sometimes be apprehended by [normal] people like us through a sense faculty. And yet (*ca*) they are not apprehended.³⁸⁰ Therefore, just like e.g. the unseen force (*adṛṣṭa*), atoms, because they are beyond the scope of the senses, are not directly perceived by normal people like us, but hairs are not beyond the scope of the senses even for one whose visual faculty is afflicted with *timira* since [for that person] there occurs the thought “This is a collection of hairs.” On the other hand (*tu*), no one similarly has the thought “This is a collection of atoms.”

§

Real wholes explain apprehension of natural types better than exclusion etc.

+127,7

Moreover, if it is only a collection of atoms that is seen in every case, then one would not, like [one does] in the case of the apprehension of a forest in relation to a collection of trees, apprehend different universals in various circumstances (*anekadhā*). If [to explain this] one says that it is because the component elements (*samudāyins*) have different forms³⁸¹ that there is in various circumstances [able to be] apprehension of different universals in relation to collections of those [components], then in that case, if e.g. the cloth and threads have [respectively] different component elements, then it is established that they are different [from each other] (*anya*).³⁸²

127,11

Then [it would seem]: The threads have the very same component elements as the cloth.³⁸³ How then is there apprehension of different universals? For indeed, even if there is

above at 109,14, where Dharmakīrti’s PVin 1.39–40 / PV 3.330 was quoted, the hairs in the present case are not imaginary but instead are real hairs that a person with an eye disease (perhaps simply shortsightedness) cannot see individually.

³⁷⁹ Cp. NBh ad NS 4.2.14: “so ‘yam taimirikāḥ kamcic cakṣurviṣayam keśam na gr̥hṇāti, kamcid gr̥hṇāti ca keśasamūham. ubhayaṁ hy ataimirikeya cakṣuṣā grhyate.” The point of the argument is that, in the case of the hairs, even though a person with diseased eyes may only be able to perceive certain, larger-sized visual objects, that does not stop more subtle visual objects from still being proper visual objects. Hence my choice here of the Jaisalmer reading *kamcit* (J2D 49v4–5) instead of the *kaścit* found in all other editions and manuscripts. For info on the NBh manuscripts, see footnote 315 above.

³⁸⁰ The phrasing of this argument seems reminiscent of ÷ NV 365,4–5 ↵, although the content is different.

³⁸¹ “Different” here means not respectively among the components themselves, but rather, different than the form of the collection.

³⁸² This latter consequence is precisely the Nyāya-Vaiśeṣika view, that the cloth is something over and above the threads, and not what the opponent here wants to admit.

³⁸³ I.e., the mere atoms themselves

a collection of [several] armies, one does not apprehend something different from an army (*senāvilakṣaṇa*).³⁸⁴ Also by those who are averse to the [real] universal, there is accepted in its place difference by way of exclusion (*vyāvṛttibheda*), and that, too, if the whole is not assumed, could not exist. For indeed, it is not as distinct from clumps (*puñjas*) of hair that a collection thereof appears like in the case of threads and cloth.

- +127,15 If one says that there is a difference of appearance corresponding to a difference in pragmatic efficacy (*arthakriyā*), [we would answer] no, because we observe difference of
(-127,17) appearance even when that [difference in pragmatic efficacy] is not observed. If [instead] one says that it [the difference of appearance] is due to apprehending the [object's] suitability (*yogyatādarśanāt*),³⁸⁵ then do pray tell (*khalu*), what other suitability is there besides a difference of the [real] universal (*jātibheda*)? If one says that the suitability [spoken of] (*asau yogyatā*) has for its basis that which is not different (*abhinnāśrayā*), [we respond that] no [that is not enough], because then it would end up that there would be the thought e.g. "cloth" also toward the parts thereof [i.e., toward the threads].³⁸⁶ If one says [that this is not a problem] because one does not observe that [suitability]³⁸⁷ in those [parts, e.g., threads], then this suitability is beyond the scope of the senses, such that it is not apprehended even if its basis is apprehended. Thus, there would in no case whatsoever be the thought of e.g. a cloth.
- +127,20 If one says that it is by all parts [acting] together that their (*tad°*) [collective] pragmatic efficacy is brought about (*sādhyate*), and so, it is only when all [parts] together are apprehended that this suitability is [able to be] apprehended, [we would answer] no [that theory fails], because it's not possible for one to see all parts [at any one time]. Therefore, it is only if the whole exists that it is possible to apprehend different universals (*jātibheda*). In that way (*tena*), once one apprehends the universal tree-ness, [then] in relation to the collection of those things that are the basis for that [universal tree-ness, namely the trees] (*tadāśraya*), [and] on the basis of the convention consisting in the notional label of forest (*vana samjñāsamketa*), also the thought "forest" (*vanam iti pratyayaḥ*) can occur.³⁸⁸ For indeed, in the absence of its causal condition, also a convention cannot be enacted (*vkṛ*),³⁸⁹ and so (*iti*) the thought "forest" would also not occur.

³⁸⁴ That is, some types of things, when combined with each other, simply pool their respective component parts and together end up as a larger version of the same type of thing they were when they started, not a new type. Thus, having the starting things and the ending thing share the same type of component parts is not a good way of accounting for the emergence of new types.

³⁸⁵ For the Buddhist, this is namely the object's suitability to be apprehended in the particular way it is, like as a cloth.

³⁸⁶ This argument seems to turn on an equivocation on *abhinna*: Whereas the *pūrvapakṣin* seemingly means that suitability to be apprehended in a certain way has for its basis all those things that are mutually "not different" from each other (*abhinnāśraya*, elsewhere spoken of as *saṃnāśraya*), the *siddhāntin* takes this "not different" in the sense that the whole is, for the Buddhist, not fundamentally different from the parts, which allows one to expect that the part and whole should have the same properties.

³⁸⁷ I.e., that suitability to be apprehended as the whole, e.g., cloth.

³⁸⁸ Yamakami (1999) rightly points out that this is a single sentence, and that the edition's *danya* does not belong (278n169).

³⁸⁹ There is a risk of over-specifying too far in either direction of "make" or "use" what exactly is meant by

§

There also exist collective things that are not real, unitary wholes.

127,26

Meanwhile (*tu*), some, believing that there never occurs an undivided thought in relation to [multiple] different things, say that the thought of e.g. an army has for its object plural number (*bahutvasamkhyā*), [while] others [say] that it has being [itself] (*sattā*) for its object. First of all, it's [simply] not the case that either plural number or e.g. being [itself] appear in the thought of e.g. an army. If it is [nevertheless] assumed on the basis that otherwise an undivided mental appearance would be impossible, then the thought of e.g. a cloth ought also (*api*) to have only that e.g. [quality of] number as its object. If one should say that [the assumption is proper] because there is no factor counteracting its [the thought's] (*tasya*) also having the whole as its object (*avayavi viṣayatva*), then [we would answer that] given that there is also nothing that [positively] establishes [that], how can it [be said to] have that [i.e., the whole] for its object? If one says that none other than its having a different appearance from [the appearance of] the parts is what establishes it, [we would answer] no, because even if it has [only] number etc. for its object, that difference [of appearance] is [still] possible. Therefore, just like the thought of e.g. a cloth, on account of sharing a locus³⁹⁰ with thoughts qualified by action or qualities, does not have [only] number etc. for its object, in the same way, neither does the thought of e.g. an army.

+128,8

And thus (*tathā ca*), the author of the [Nyāya] Sūtras did not correct the objection that “There is apprehension [of the whole] like in the case of an army or a forest” by saying either “No [that's wrong], because e.g. an army (*senādeḥ*) is also undivided” or [by saying] “[No, that's wrong] because it [the army] is a separate thing from the [foot-]soldiers and so on” but rather by saying “No, because atoms are beyond the scope of the senses.” [What's more] for one saying that “one cannot treat different things as not different”, there would also be a contradiction with the sūtras, for by this [sūtra which states] (*ity anena*) “Those [sounds (*vārṇas*)] ending in inflectional endings (*vibhaktis*) are a word (*pada*),”³⁹¹ it is taught that sounds, despite being multiple (*bahavo 'pi varṇāḥ*), constitute a single word.

+128,12

Moreover, if such [verbalized] thoughts as “the blossoming forest is being cut down”, “the great army is on the move”, etc. are substantiated as having number for their object by means of their being based on the inherence of quality and action in one thing, then also the person who advocates universals as the [only] meaning of words is certainly able to substantiate [that view] by relying on the particular proximity (*pratyāsatti*) that is the having of a common [referential] locus (*sāmānādhikaranya*) in a phrase like “the white cow is going

“*vkṛ*” here in the context of conventions, since Dharmakīrti himself seems to conflate situations involving their creation on the one hand and usage on the other. See Arnold 2006, especially pp. 444–45 and 474–75.

³⁹⁰ Namely, the real whole thing.

³⁹¹ See = NS 2.2.58 ↗.

along.”³⁹² And then, [the *sūtra*]³⁹³ “The meaning of a word (*padārthaḥ*) is, as the case may be (*tu*),³⁹⁴ individuals, form (*ākṛti*), and/or universals” would certainly lack authority. Therefore, it is none other than the basis of qualities and actions [itself] that appears in the thought of e.g. an army.³⁹⁵ On the other hand, the undivided appearance in that [thought] is certainly mistaken, like when, because of not apprehending the difference at a distance, it seems that “There are trees in the village”.³⁹⁶ If one says that the thought of e.g. a cloth is also like that,³⁹⁷ [we would reply] no [one cannot simply claim that], because that is [exactly] what has been brought up for discussion [here] (*vicāritatvāt*).

+128,19 Alternatively, [it is better to say that] the whole is simply that thing, possessing color and so on, about which a mental appearance of something undivided is not erroneous. And it cannot be that (*na ca*) there is [such] error in each and every case. For indeed, it is by apprehending difference that the mental appearance of non-difference is counteracted. Furthermore, if there were no apprehension of something undivided in any case [whatsoever], then also the apprehension of difference [itself] cannot be real (*vāstava*), since difference has for its basis multiple undivided things. If one says that non-difference is apprehended in relation to the atom, [we would answer] no [that cannot be], since it [the atom] is beyond the scope of the senses. Moreover, it cannot be that (*mā*)³⁹⁸ these thoughts about cloths etc. have atoms as their objects, since they [those thoughts] share the same basis with the thought of large extent (*mahat*) like thoughts about ether and so on [do].³⁹⁹ Hence, the

³⁹² In the first set of examples, more literally, “blossoming and being cut down is the forest”, and “great and on the move is the army”, the point seems to be that the subject is unusually displaced to the end of the sentence, apparently so as to emphasize it in some way. However, how this fact is then to be used as evidence for inherence and, consequently, for number being the primary object of thought is not yet clear to me. More importantly, Bhāsarvajña disapproves of this linguistic argument, which he seems as opening up the door to similar bad arguments, such as interpreting the default word order of the “cow” example, with the attributive adjective before the subject noun and the finite verb at the end, as evidence for another (in his opinion wrong) view.

³⁹³ See = NS 2.2.66 ↗.

³⁹⁴ For this meaning of *tu* here, see the NBh explanation: “*tuśabdo viśeṣaṇārthaḥ / kim viśiṣyate? pradhānāṅ-gabhāvasyāniyamena padārthatvam iti /*” Gangopadhyaya translates (his teacher Phanibhusana’s Bengali translation of) the latter phrase as “absence of any fixed rule as to the primacy and relative unimportance (of either of the three) in the case of the meaning of a term” (1982, 167). Jha’s translation (1939, 248) agrees.

³⁹⁵ Since the army and forest are not agreed to be new substantial wholes in their own right, the “bases” here consists in the individual substances (e.g., people or trees) that make up the army etc. and truly possess the properties like qualities or motions.

³⁹⁶ That is, due to a particular perspective, the trees and the village appear to overlap in one’s visual field, and one does not realize that they are in fact in different places.

³⁹⁷ I.e., mistaken because of not apprehending the difference.

³⁹⁸ V read *na* and P reads *mā*. Both are possible here, so I choose the harder P reading.

³⁹⁹ Cp. = NBh 0508,3 ↗ for the phrase *mahatpratyayena sāmānādhikarāṇyāt*. The term “*mahat*” in Vaiśeṣika philosophy indicates a range of sizes larger than that of atoms (*aṇu*), from small and medium-sized compounded objects (e.g., dust-motes and pots) at one end to partless, all-pervasive substances, especially *ākāśa* and *ātman*, at the other. Here, Bhāsarvajña seems to have chosen to emphasize the non-atomic size of the cloth by comparing it to the extreme case of ether, even at the expense of ether being

whole is that thing, over and above the atoms, about which there is the thought of e.g. the cloth.

§

The whole arises as a different entity among its parts, not as a property thereof.

+128,25 Others say that it [the whole] is nothing but a property of the atoms.⁴⁰⁰ [But] is that [supposed property of the atoms] possessed of (^yukta) the color and so on, or is it devoid of it?⁴⁰¹ If it [the property] possesses color and so on [and if it does so] as something over and above the atoms,⁴⁰² then there is no dispute [between us], because it is no contradiction for an effect to be a property of its causes.⁴⁰³ If it is devoid of the e.g. color, then there is a clear contradiction (*adhyakṣavirodha*), since the e.g. cloth is apprehended to have e.g. color through none other than direct perception. Also on the Sāṃkhya view, as a result of assuming non-difference of property and property-possessor, it is impossible for a property that is beyond the range of the senses to be directly apprehended. For indeed, if it were directly perceptible, then the property-possessor, which is not different from that [property], would also have to be directly perceptible, or else (*vā*) it would undo the identity [of the two].

129,6 Furthermore, if you say that the thought [that occurs about a two-tiered pot] is that “These are two pots joined together”⁴⁰⁴, [and] not that “It is many atoms” or “[It is] a property thereof”, and therefore (*tat*) that it [the thought of the pot etc.] is like the thought of a temple (*devakula*) and so on, then you [must] think [the following] (*atha manyase*): Just as a temple along with (*ca*) its surrounding compound (*prākāra*)⁴⁰⁵ is said to be (*ucyate*) nothing but a particular conjunction of bricks (*iṣṭakā*) and so on, and yet (*atha ca*) there [also] occurs the thought about them that the temple and its surrounding compound, [each of] which have [their own] color etc., are conjoined, so too is that how it is for pots etc.

potentially a poor example in other respects, namely, its neither having parts nor being readily perceptible (at least an everyday sense).

⁴⁰⁰ That the underlying @ NS 4.2.10 ↗ is indeed to be understood as speaking about properties is suggested by ÷ NBh 1048,3 ↗ and ÷ NV 474,6 ↗. That the *paramāṇu* here can equivalently be substituted for the *avayava* in those presentations is an additional step that we must make. Cp. also footnote 212 above.

⁴⁰¹ That is, is the property the type of thing that can have qualities and so on, i.e., a substance?

⁴⁰² This additional attribute further specifies the dilemma in question, albeit a bit unfairly, after-the-fact: Either the whole-as-property is a novel substance possessing the color, or else not all of that is true, and more specifically, its possessing the color in question is not true.

⁴⁰³ For example, the Naiyāyika can agree that an effect produced from *samavāyikāraṇas* is something supported (*dhṛta, dharma*) by them.

⁴⁰⁴ This example relies on a traditional shape for a clay pot in ancient India involving one complete pot on the bottom plus a second pot with no bottom placed on top of the first, creating a sort of hourglass figure. With such an object, the individual components remain very distinct.

⁴⁰⁵ “Temple” here (*devakula*) means the inner sanctum (*garbhagṛha*) and the tower (*vimāna*) above it, while the surrounding compound (*prākāra*) consists of the separate, free-standing outer wall or walls, the intermediate space created thereby, and any gates in those walls (including, e.g., the large and ornate entrance tower, called the *gopuram*, of Dravidian architectural styles).

+129,9

[To this we would answer:] No [it is not merely conjunction], because the temple and so on⁴⁰⁶ is also accepted as being a whole. However, by Uddyotakara (*Tamo'ri*) it is [in fact] taught,⁴⁰⁷ [specifically] by way of a Sāṃkhya view (*abhiprāya*), that the thought of the temple etc. has a conjunction for its object, so as to show that an example case (*drṣṭānta*) completely fails to work (*sarvathā...nopapadyate*) on the Buddhist view. But [anyway] (ca) it's not possible to explain the [entire Nyāya] systematic teaching (*śāstra*) in full agreement (*avirodhena*) with the views (*matas*) of all commentators [on the Nyāyaśāstra] (*vyākhyātṛ*)⁴⁰⁸, because in all systematic teachings, there can be division among commentators by way of their contradictory views, because commentators expound upon each others' faults. Because of that, it is difficult to avoid [even] outright (*eva*) contradiction among the means of valid knowledge. Indeed (*khalu*), if the surrounding temple compound and so on were [in fact] by nature a conjunction (*samyogātmaka*tve), then not only (na *kevalam*) does the previously stated thought not occur, [but] also (api) the thought of something undivided would not occur, since the conjunctions with the bricks and so on are many [in number].⁴⁰⁹

129,17

But surely [an objector might continue], given that it is only ones of the same type that can bring about [a unitary] substance, how is it that for e.g. a temple, which is brought about by things of different types like wood, bricks, and so on, being a whole is not contradicted by [this] means of valid knowledge?⁴¹⁰ [To this we would answer:] No [there is no contradiction], because also things of different types are observed to bring about the body.⁴¹¹ If [however] they [the things that bring about the body] are [able to be] in a certain way of the same type,⁴¹² then let the wood, bricks, and so on, through their [own] shared nature

⁴⁰⁶ I.e., the temple and compound combination.

⁴⁰⁷ Although the epithet "Tamo'ri" for Uddyotakara is well known, it does not seem possible to find a precise parallel in the NV corresponding to argument attributed here. Yamakami (1999, 278n178) suggests NV 209,20ff. (ad NS 2.1.33) ↪ as a closest contender, but the resemblance is tangential if anything.

⁴⁰⁸ This use of the term "*vyākhyātṛ*" seems compatible with the doxographical distinction used by Cakradhara to indicate those authors who focused their Nyāya commentary directly on the *Nyāyabhāṣya*, including Uddyotakara, versus those who commented on Uddyotakara's own *Nyāyavārtika*. See footnote 90 above.

⁴⁰⁹ The "previously stated thought" here (*pūrvoktapratyaya*) seems to refer to the one that says "the temple and its surrounding compound, [each of] which have [their own] color etc., are conjoined". The idea of the argument here seems to be that if one sees the top-level combination of the temple and the surrounding compound as a mere conjunction, then there's nothing to stop one from also considering the respective combinations of bricks and so on that produce each of those two components to themselves be mere conjunctions, such that the temple and the surrounding compound themselves also would not be wholes and could not be thought about as such.

⁴¹⁰ I.e., by this accepted doctrine. Cp. VS 1.1.22: "*dravyāṇāṁ dravyam kāryam sāmānyam*".

⁴¹¹ Namely, the various organic factors that go into constructing and growing a body from conception onward, including blood, semen, food, and so on, all of which, however, are said to be made of earth. In Nyāya, although other elements like water are said to be concomitant factors in the bringing about of the body, they are not considered to be material causes in the same way that earth is. In this way, earth provides the common thread between the causes and the effect. See also footnote 418 below.

⁴¹² I.e., not only the same as each other but also the same as the resulting body, namely, made of earth.

of e.g. earth (*sa pārthivādirūpeṇa*), also be of the same type [in that same way].⁴¹³ What is contradicted here (*atra viruddham*)?

+129,21 And surely [it should also be asked], why do e.g. threads and *vīraṇa* grass, although they are [both equally] of the nature of e.g. earth, not [together] bring about the cloth? Indeed (*nanu*), [despite] being of the same type [as the cloth made of earth], why don't *vīraṇa* grasses bring about e.g. cloth even on their own?⁴¹⁴ If one says that it is because they are incapable [of doing so], then one should just say that they are incapable, not that they are of a different type.⁴¹⁵ On the other hand, threads and *vīraṇa* grasses and so on are all (*api*) [equally] capable of bringing about e.g. a rope. Therefore, whether they are of the same or of a different type (*samānajātīyānām vijātīyānām vā*), whatever things have been determined through positive and negative concomitance to be capable⁴¹⁶ with regard to some effect should be admitted as bringing about that effect. One should not insist in a one-sided manner (*ekāntāgraḥ*) that only things of the same type are capable of bringing about [unitary substances].⁴¹⁷

129,27 Surely [one might then object], in this way, even if all five elements [together] bring about [the body as] a single effect, there would be no contradiction. [To which we respond:] So be it, if [indeed] that sort of effect is [ever] observed. We [however] do not [in fact] recognize just such an effect, and so (*iti*) that [possibility of five elements together bringing about the body] is not admitted. Surely [one might say], the body does [in fact] consist of [all] five [elements]. [But] no [that's not true], because it is [only] by way of its [the body's] having [all] five [elements] as causal conditions (*nimitta*) that there is the metaphorical extension (*upacāra*) [of saying] that it consists of five [elements], not through its [the body's actually] inhering in the five [elements].⁴¹⁸

+130,3 To explain: Ether, first of all, cannot bring about substance at all, because it is all-pervasive and intangible.⁴¹⁹ Moreover (*ca*), if the body had that [ether] as a cause characterized by inherence (*samavāyikāraṇa*)⁴²⁰, then it would [itself] be all-pervasive and devoid of form

⁴¹³ Again, both the same as each other and as the resulting temple.

⁴¹⁴ While the coarse *vīraṇa* grass can be used to make mats (*kaṭas*) or ropes (*rajus*), it apparently resists being used for cloth, even in combination with softer threads.

⁴¹⁵ Here, the grasses' difference from the potentially resulting cloth seems more important than their difference from the threads, since even in isolation from the threads and thereby free from potential conflict with other, heterogeneous causes, the grasses still do not bring about cloth.

⁴¹⁶ For the phrasing, cp. \cong PVA 418,22 \hookleftarrow .

⁴¹⁷ This latter comment seems to be directed against Vātsyāyana. Cp. NBh 3.1.31: “*sthālyādiṣu ca tulyajātīyānām ekakāryārambhadarśanād vijātīyānām ekakāryārambhānupapattiḥ*”

⁴¹⁸ On this objection and the following discussion, see the *śarīraparīkṣā* of the NS and NBh, esp. 3.1.28–29.

⁴¹⁹ That is, it is incapable of the kind of contact (*sparśa*) necessary for the conjunction which constitutes the process of bringing something about.

⁴²⁰ The term *samavāyikāraṇa* is somewhat difficult to translate into English because the Sanskrit compound potentially admits of several analyses. Since the idea is that such causes produce an effect that in turn inheres in those same producing causes, only two analyses are possible, one a *karmadhāraya* and the other a *tatpuruṣa*, respectively: a *samavāyikāraṇa* is a cause (*kāraṇa*) that is characterized by (-in) inherence (*samavāya*), namely, by the inherence of the resulting effect in the producing causes themselves, or else, it is a cause (*kāraṇa*) of that which performs the action (-in) of inhering (*samavavī*), namely, of the effect

and so on.⁴²¹ In turn (*api*), if it were produced from wind, then it would have touch as its only quality. Again (*api*), if it were produced from fire, then it would not be possessed of smell, taste, and heaviness. And [finally] (*ca*) if it were produced from water, it would not possess smell. Furthermore (*ca*), one would apprehend contrasting color and so on, because the whole conforms to the colors etc. of its parts.⁴²² It is for this reason (*ataḥ*) that the body is not produced from multiple elements. But [it is] also (*ca*) because one apprehends by direct perception only [the body's] earthen parts [i.e., atoms], because, just like in the case of [apprehending the properties of] pots and so on, one apprehends the moisture, heat, expiration, and so on⁴²³ only insofar as they inhere in that [other substance] which is conjoined [with the body] (*samyuktasamaveta*).

130,10 Thus, even for bringing about [the water-dwelling body of] e.g. a fish, the earthen ones [i.e., atoms] are the [material] cause of that [effect, i.e., the body] which [then] inheres [in them], whereas the others are the causal conditions. However, if there appears an effect possessed of e.g. variegated color, then its parts which have contradictory properties (*viruddhadharma ka*) are definitely accepted as producing a single effect, as was stated earlier. Thus, in this same way, for the producing of a temple etc., some things, like the wood, bricks, and so on, should be accepted as being the cause characterized by inherence and the others as causal conditions, or alternatively (*vā*), they should all be accepted as being [such] a [material] cause characterized by inherence insofar as they are observed to be so (*yathādarśanam*). Therefore it is established that also the temple and so on is a whole.

130,15 In that case, [it would seem then that] that which is characterized as a village could also be accepted as a whole. Some agree that this is true. Others [however] say that the e.g. houses, if they are not conjoined with each other (*parasparato' samyuktānām*), cannot possibly bring about the e.g. village, because, if there can be bringing about [of some thing] through conjunction with things that are not conjoined [with each other] (*asamyukta-samyogena*) then it would end up that even parts [e.g. houses] located in a different place could bring it about [e.g. the village].⁴²⁴ Therefore, our common practices (*vyavahāra*) concerning villages and so on should be viewed as being in fact (*eva*) about e.g. [mere] collec-

which inheres. I choose the former, *karmadhāraya* reading here. On the other hand, the conventional English translation for the term, “inherent cause”, is unacceptably misleading, since “inherent” in English indicates active performance of the action of inherence. That is, it suggests a cause (*kāraṇa*) that itself performs the action (-*in*) of inhering (*samavavī*), which is not what is meant here. Hence my attempt at a more literal translation here.

⁴²¹ That is, if the body were produced from ether (*ākāśajanyatve*), then it would take on its qualities. This latter argument is then repeated for the other elements.

⁴²² That is, the different elements, specifically earth, water, and fire, would ostensibly have different appearances.

⁴²³ These properties seem to have been chosen to equally apply to both people and pots. In the case of people: sweat, digestive heat, and breath. In the case of clay pots: sweating of liquid “through” the walls of the pot (actually, condensation on the outside), radiative heat, and porousness to smells.

⁴²⁴ I emend to *asamyuktasamyogena* here. In order to make sense of the reading *samyuktasamyogena*, i.e., “through conjunction with something that is conjoined”, the P1 scribe suggests the ground (*bhūtalā*) as an intermediate thing to which all the various houses are conjoined. Thus, through their connection to it, they bring about the village.

tions of houses. Also [such] common practice concerning an assembly of people (*pariṣad*) and so on is [able to be] explained in this very same way. In relation to e.g. collections of atoms [however] there does not also occur this kind of (*itthambhūto 'pi*) of different ('bheda) common practice, as has already been stated earlier. Therefore, the whole does [in fact] exist.

§

The infinitely small and indivisible atom provides a proper foundation for the whole.

- +130,20 Also, that which was said for the sake of refuting [the existence of] atoms, [namely] “[If it joins simultaneously] with a set of six [other atoms]...”⁴²⁵, is also incorrect, as it is counteracted by none other than (eva) the apprehension of their [the atoms’] effects. For indeed, an effect is not observed to exist in the absence of its material (*upādāna*^o) cause. Meanwhile (ca), the whole has been established to exist, [and so] it must have a material cause. The fundamental (*mūla*) material cause that it has is [namely] the atom. [But] that cannot have parts, for if it did, then it would not be fundamental.
- +130,24 Now [one might suggest]: There simply is no fundamental material cause. [Our answer would be:] Even so [there remains the problem that,] with no foundation, the whole [substance] (*sarvasya*) would cease to exist. Then [perhaps] the succession of [smaller and smaller] parts is not accepted to have a final limit (*avadhi*). [But] also in this way, [there remains the problem that,] if there is no difference [among all things] in having infinitely many parts, then there would be no difference in the size or heaviness of, say, a mote of dust (*truti*) and a mountain. Therefore, there is a final limit to [the sequence of] smaller, even smaller, and so on (*alpataratamādeḥ*). And (*ca*) that [smallest material cause], once momentariness is refuted,⁴²⁶ is established to be unproduced. For indeed, a thing can arise neither in the absence of a material cause nor from a material cause of equal or greater size.⁴²⁷
- +131,3 That an atom should have six parts is incorrect, because it contradicts one’s own words, like saying “My mother was a barren woman”⁴²⁸. For indeed, that compared to which there exists no smaller thing is what one calls an atom. How could that have six parts, when its very own part is smaller [than it]? It’s true (*khalu*), a thing which has parts (*amśavat*) can by metaphorical extension be [said to be] “atomic” [in size] (*aṇu*), but most literally (*mukhya*), an atom is only what has no parts.
- +131,6 Also it is incorrect [to have said] that “[Alternatively,] if [the atom does not have parts

⁴²⁵ Cp. above at 106,11.

⁴²⁶ Namely, refuted for physical things in the sense that destruction is not spontaneous or automatic but rather depends on the nature of the thing in question. Naiyāyikas do, however, accept that cognition exists in a momentary fashion.

⁴²⁷ That is, a produced thing must have a material cause, and that material cause must be smaller than the thing it helps bring about.

⁴²⁸ The phrasing of this well-known accusation resembles that established at ≈ NPS 2,21–22 ↔.

and instead] the six [connected atoms] are in the same place (*ṣaṇṇām ekadeśatve*)⁴²⁹, then the overall thing would have the measure of [only] an atom”, since it is seen that the whole’s extent exceeds (*parimāṇatiśaya*) the extent of [any given one of] its parts. Based on that, it is inferred that also that which is [directly] brought about by atoms [i.e., a *dvyāṇuka*] has relatively greater (*adhika*) extent [than the individual atoms do], and [in turn one can infer that] the [produced] effect of those [produced *dvyāṇukas*, i.e., a *tryāṇuka* and so on] has an extent greater than theirs. Therefore, why would an overall thing end up being of the measure of just one atom?

131,11 Further, that which was said,⁴³⁰ that “Through the division of the directions [into four cardinal, four ordinal, and two vertical], it [the corporeal atom] would have ten parts,” is also incorrect, since it is [only] when one thing constitutes a final reference point (*avadhi*) that other substances can be distributed (*pravibhajyante*) by means of the directions, like how the Himālayas are situated to the north of Prayāg and the Vindhya are [situated] to the south [of the same].⁴³¹

131,14 But surely [one might object], one does [in fact] observe a division even of the reference point [itself], such as when one says “This is its (*asya*) eastern part, this its western part, this its southern part, this its northern part.” [To which we respond:] No [the problem remains], because also in that case, it is [only] by one part⁴³² being the reference point that the subdivision is possible for the other parts. And the atom has no parts, hence there can be no construing (*vikalpa*) of a [real] division into [parts like] eastern and so on.

131,17 Now it is [perhaps] supposed that (...*iti vikalpyate*) it is relative to other substances (*dravyāntarebhyah*) serving as reference points that the atom itself (*eva*) is eastern, southern, western, or northern. [To which we would answer:] Then there is no contradiction, since one observes different ways of referencing (*vyapadeśa*) even an undivided thing by way of different imposed properties (*upādhis*).

132,2 Also [to have said] that [either the indivisible atom does not exist] “or else ether is not all-pervasive” is not correct, since that which is permanent and without parts cannot be divided. Then [one might insist]: If ether does not exist inside it [the atom] (*antas tasya*), then ether ends up not being all-pervasive. [To this we say:] No [that argument fails], because you have not fully understood the nature of something all-pervasive (*sarvagatasvarūpa*). To explain: All-pervasive is what one calls a substance which is by nature undivided and which has a connection with all corporeal things, and ether does have this character, which is inferred by the arising of sound in all places (*sarvatra*). Therefore, it [ether] is, too, in fact all-pervasive.

+132,6 If one says that, without a connection to the interior of an atom, it [ether] is [definitely] not all-pervasive, [we responds that] no [that’s wrong], because that [interior of an atom],

⁴²⁹ The reading in P and E with extra *api*, “ekadeśatve ‘pi’”, does not work. Concerning both the lack of *api* with *ṣaṇṇām* here and the reading of *eka* vs. *samāna*, cp. footnote 215 above.

⁴³⁰ See above at 107,1.

⁴³¹ That is, Prayāg forms a central point of comparison relative to which other things can be situated in space. By contrast, if considered completely on their own, the Himālayas and the Vindhya cannot be said to be located north or south of anywhere. Prayāg is also known by its other name of Allahabad and for its being situated at the confluence of the Gaṅgā and Yamunā rivers.

⁴³² I.e., a further, central part.

like a hare's horn, doesn't exist at all. For indeed, a singular, partless thing can have neither an outside nor an inside. And since it [ether] is connected with everything that exists as corporeal (*yad asti mūrtam*), how is it not all-pervasive? Therefore, this [argument] too is nothing but a trap for simpletons.⁴³³

+132,9

And so (*evam ca*), because the whole and so on exist,⁴³⁴ the inferential reason [for the existence of cognition alone, namely] "because there is no apprehender or apprehended"⁴³⁵ is unestablished.

⁴³³ This phrase *akṛtabuddhivyāmohana* is rendered as "un leurre pour esprit mal formé" or "un attrape-nigaud", i.e., a "nitwit-catcher", by Verpoorten (2002, 269).

⁴³⁴ That is, because the passage section which ends here (§3) proved the existence of both the whole and the atom as real apprehended things (*grāhyas*).

⁴³⁵ See PVin 1.38cd, "*grāhyagrāhakavaidhuryāt svayam saiva prakāśate /*", as quoted above at 107,5, and see also footnote 223 on how this *pāda* c is part of the frequently misunderstood story of this verse's transformation from the PV to the PVin.

§4 Bhāsarvajña’s Siddhānta B: Against Cognition Non-Dualism

§4.1 On “Self-Awareness” (*svasamvedana*)

Non-dual self-awareness cannot be proved.

§

The “co-” (saha) in “invariable co-apprehension” requires real difference.

132,11

Furthermore, in the statement⁴³⁶ that “Given that they are invariably apprehended together, there is no difference between an object and the cognition thereof, like when, for example, one apprehends two moons”, the inferential reason is, first of all, inconclusive. To explain: The Pleiades [also] are invariably apprehended together, and yet (ca) they are not non-different, as their difference is well established by universal agreement. Furthermore, in the same way that (*yathā*) one who [carefully] examines [them] (*vicārayataḥ*) can apprehend the Pleiades distinctly (*vivekena*), so [can one do] for a cognition and its object, as well.

+132,14

Moreover, this [same] inferential reason is contradicted, since the word “together” (*saha*) can have meaning only if there is difference. Indeed, “together” doesn’t have any meaning if there is only one thing. If you say that there exists a meaning for [the word] “together” in dependence on error (*bhrānta*)⁴³⁷, then you [must] think the following (*atha manuṣe*): It is due to error (*bhrānteh*)⁴³⁸ that something, although undivided, is [mentally] determined by way of difference (*bhedena*),⁴³⁹ [and] it is in reliance on that [error] that one speaks of “apprehension together”, like in the case of apprehending two moons. In reality (*vastusthityā*), though, there is apprehension only of one.⁴⁴⁰

+132,18

[Our reply to this would be:] No [that argument doesn’t work], because what appears in that case [of the double moon] (*tatra*) is a superimposed divided form (*bhinnākāra*), and one cannot establish that the real (*vastubhūta*) [undivided] form is the same as (*abhinna*) that superimposed [divided] form. After all, the [true, mother-of-pearl] form of the conch shell

⁴³⁶ See §2.1 in the *Pūrvapakṣa*.

⁴³⁷ This reading could also be a distortion of *bhrāntyapkeśayā*, as Yogīndrānanda suggests, but both P and V agree on *bhrānta-*, and this is in fact another word for error.

⁴³⁸ P’s reading *bhrāntaiva bhinnam* here prompted Yogīndrānanda to emend to *bhrāntyāiva abhinnam*, with instrumental *bhrāntyā* and an additional syllable *a* for negative *abhinnam*, but also with retained *eva*. By contrast, V’s ablative reading *bhrānter abhinnam*, with basically equal meaning, is already plausible without changing the number of syllables, and it does not have the *eva*, which seems a bit awkward anyway. I suspect that the syllable *ra* was first misread as *va* in the tradition of P, thus leading to a subsequent change of vowel *e* to *ai*, which sequence Yogīndrānanda then took to a logical conclusion as printed.

⁴³⁹ The instrumental case here indicates an instrument rather than the agent of the passive verb *adhyavasīy-ate*. That is, difference, or perhaps the idea thereof, is involved in the mental determination of the object such that it becomes part of the form by which the object appears to us.

⁴⁴⁰ Cp. footnote 445 below on connections to Jayarāśi’s argumentation.

(śāṅkharūpa) can't be the same as the [superimposed] yellow form (*pītākāra*). To explain: Whether the property of having a divided form (*bhinnākāratā*) that appears in that case [of the two moons] (*tatra*) [truly] exists or not, either way, there is a contradiction with proving non-difference.⁴⁴¹ For [on the one hand] how could two things which truly (*paramārthatataḥ*) have a divided form be non-different [from each other]?⁴⁴² [Alternatively] if the property of having a divided form is not ultimately real, then how is that [property] non-different with what is [in fact] ultimately real (*paramārthena saha*)?⁴⁴³

+133,3

If one says that it is only the [mutual] non-difference of the two things which are apprehended as having a divided form that is being established, and not (*na tu*) [the non-difference] of the property of having a divided form [with anything else], since that [property of having a divided form] is by nature empty, [then we answer:] even so, the inferential reason is inconclusive. [This is so] because even if it is another thing [unto itself], the property of having a divided form is invariably apprehended together with the form of awareness.⁴⁴⁴ Alternatively, if it [the empty property of having a divided form] is not another thing [over and above the form of awareness], then the form of awareness, which then would be identical with that [property], would [itself] also end up being empty in nature.

+133,7

Also the [alternative] meaning of the inferential reason (*hetvartha*) “Given that they [a thing and the cognition thereof] are apprehended *by* one and the same [thing] (*ekena*)” is unestablished and so incorrect, since a [given] thing is apprehended by multiple people.⁴⁴⁵

133,9

Also, one who says that the meaning of [the inferential reason] “because they are invariably apprehended together (*saha*)” is “because there is apprehension of just one [thing] (*ekasya*)” must say whether it is apprehension only of cognition or only of the object. If it is only of cognition, then how could that [cognition] be [said to be] non-different with a thing that is not being apprehended? Because then it would end up that it [the cognition] could be [equally proven to be] non-different with all the three worlds.⁴⁴⁶ [And in any case] an in-

⁴⁴¹ Since the following two sentences after this aim at two different kinds of difference — the difference between the two moons, and the difference between the true form and the property of having the false form — what is meant by this ambiguous “non-difference” (*abheda*) here seems to be non-difference in general, which then implies a (in Bhāsarvajña’s view) pernicious non-dualism.

⁴⁴² That is, in this scenario, two things jointly possess a form that is divided, ostensibly with one part of the form corresponding to each thing. Since the way these two things possess this shared form is “truly”, therefore the form’s division reflects ontological reality.

⁴⁴³ That is, the existence of the (supposedly) unreal entity that is the property of having a divided form must somehow be explained on the basis of what is real, which in this case is the form of awareness (*bodhākāra*), see which below.

⁴⁴⁴ That is, just like the object is inferred to be non-different with cognition on the basis of its being invariably apprehended together with it, so should the same apply to this property.

⁴⁴⁵ This would seem to refer to the intra-Buddhist controversy over whether distinct mental continua (ultimately) exist or not, for which we can take as representative Dharmakīrti’s *Samtānāntarasiddhi* and Ratnakīrti’s *Samtānāntaradūṣaṇa*, respectively, for more on which, see Inami (2001).

Also, for this specific series of *prasaṅga*-type arguments turning on various interpretations of *saha* as *eka*, Bhāsarvajña seems to be drawing on Jayarāsi; cp. \div TUS II,104,6ff. ↗.

⁴⁴⁶ I.e., not being apprehended is not itself enough to constrain only the purportedly external object as being that which the cognition is non-different with, since virtually every other given thing in the world is also

ferential reason is useless for establishing the non-difference of a given thing (*tasya*) with its very own self (*tadātmanaiva*), because there is no dispute about that.⁴⁴⁷ It is with this [same argument] that [the second alternative, that] “there is apprehension only of the object” is [also] responded to. Moreover (*ca*), it [the reason understood in this way] is [on either alternative] unestablished, because there is [in fact commonly accepted to be] apprehension of both cognition and the object.

+133,14 Now [consider that one says]: At the time when the object is being apprehended, the cognition is not apprehended, and (*ca*) when cognition is being apprehended, the object is not. In this way it is established that there is “apprehension of only (*eva*) one”. [To this we would answer:] Even so, you will end up contradicting your own position and accepting that of your opponent.⁴⁴⁸

133,17 Then [it might be said]: There is but a single apprehension of cognition and thing, and one cannot establish (*vyavasthiti*) a difference [between them] on the basis of that single apprehension. In that case, does it [the single apprehension] apprehend the difference [between the two], or does it not? If it does not apprehend the difference, then (*tadā*) how does one speak of [both] cognition and object? If it does apprehend the difference, then why say that one can't establish a difference [between the two things] on the basis of it? If one says that [one cannot because] it's like the cognition of e.g. two moons, [we would answer] no, because it has [already] been stated⁴⁴⁹ that one cannot establish non-difference [of the real form] with the superimposed form in that case.

§

“Object-awareness” (arthadrṣṭi) requires real difference.

+133,21 And based on what is it established [in the first place] that there is but a single apprehension of cognition and object? [The response may be:] Surely it has [already] been stated⁴⁵⁰ that “Object-awareness is not established for one whose cognition is [itself] not directly perceived.” What [then] is this “establishment” (*prasiddhi*) of object-awareness? Is it the arising [of that awareness], or is it the [meta-] awareness [thereof]? And what, too, is that “cognition” (*upalambha*) for which [it is true that] (*yasya*) a lack of being directly perceived

not being apprehended by a given cognition at a given moment.

⁴⁴⁷ On any account, this point seems quite weak. That is, if one thing that initially seemed to be independent from another thing at the beginning of an argument is shown by the end of that argument to be identical with the other thing, the resultant tautology “A = A” cannot be used to show that the argument was unnecessary after all. Rather, its usefulness clearly depends on the state of the mind it is being used to change at a given moment.

⁴⁴⁸ That is, in admitting that both aspects are indeed truly apprehended but not at the same time, one first contradicts the Buddhist view by admitting the existence of the object, and one secondly accepts the the Nyāya-Vaiśeṣika view by admitting the non-simultaneity of cognition (*ayugapajñāna*) associated with the discrete functioning of the *manas*, such as argued for at NS 1.1.16.

⁴⁴⁹ Namely, shortly before at 133,2–3, when Bhāsarvajña suggested with a rhetorical question (“*apāramārthikī ced bhinnākāratā, tasyāḥ paramārthena sahābhedaḥ katham?*”) that something unreal cannot be non-different with something real.

⁴⁵⁰ In PVin 1.54cd, quoted above at 108,4.

(*apratyakṣatva*) results in the object-awareness not being established? Is it none other than that very same object-awareness (*arthadrṣṭi*), or is it a [different] cognition that produces that [object-awareness]?

+134,3

Among these (*tad*), if the “cognition” (*upalambha*) is none other than the object-awareness [itself], and when that [object-awareness] (*tasya*) is not directly perceived, then it [i.e., the same object-awareness] cannot arise, then that is incorrect, for the object-awareness can [only ever] be directly perceived after [its] arising has [already] taken place, certainly not before. After all, one never observes the sequence that something has been directly perceived and then arises.

+134,6

Then [it would seem]: The “cognition” (*upalambha*) is a [different] cognition (*jñāna*) that produces that object-awareness, [and] when that [producing cognition] (*tasya*) is not directly perceived, then the object-awareness does not arise. [But] that [too] is incorrect, because, as in the case of the visual faculty, also something that is not directly perceived can cause arising [of object-awareness], and also because when a person who is fast asleep wakes up due to e.g. an intense physical sensation, there is no awareness of the preceding [causal] moment of cognition. Moreover, even if the object-awareness is produced by a cognition that is [itself in fact] directly perceived, it is [still] not established [on account of that fact] that there is invariably apprehended [only] one of [either] the object or the cognition thereof.

+134,9

Next [one may argue]: The “establishment” of the object-awareness is the [meta-] awareness [thereof]. Even so [there is a problem, because] the meaning of the statement [then] becomes “For one whose awareness is [itself] not directly perceived, object-awareness is not directly perceived.” And by this (*cānena*) nothing is proved.⁴⁵¹

+134,11

Next [one may argue:] “awareness” (*dṛṣṭi*), in the sense of that which one is aware of (*drśyata iti*), is nothing but the object, and therefore the meaning of the [entire] statement is that, “For one whose object-cognition (*arthopalambha*) is not directly perceived, neither is the object directly perceived.”⁴⁵² [Answer:] No [that argument fails], because it [the object] is a different thing from the cognition, and it is not reasonable that when one thing is not directly perceived, a thing different from that should [also] not be directly perceived, because that would be absurd.

⁴⁵¹ This argument seems to require reading the compound *apratyakṣopalambhasya* as a *bahuvrīhi* (or possibly as a genitive absolute). This is because the two instances of “*upalambha*” in the sentence have to be numerically identical, or else in the relation of genus and species, in order for the charge of insignificance (“*na anena kimcit sādhitam*”) to work. Otherwise, if the genitive compound is not a *bahuvrīhi* (or genitive absolute), then the genitive *upalambha* would seem to be left as the direct object of the nominative one, i.e., one would be speaking of the cognition of a (different) cognition, and that doesn’t fit the argument here. Alternatively, if to speak of “awareness’s being aware (of the object)” is simply to name the thing’s own nature, then perhaps Bhāsarvajña does intend the completely impersonal reading after all. Cp. footnote 228 above.

⁴⁵² Here, the genitive *upalambhasya* can more easily work as a subjective genitive for the logical object *artha* in a more straightforward impersonal construction (“*awareness of the object of the awareness...*”), but I still translate as a *bahuvrīhi*, in line with footnote 451 above.

Meanwhile, the restoration to *arthopalambha* rather than only *upalambha* feels a bit awkward, since it goes against the wording of the PVin original for seemingly no good reason, but it’s not impossible, so I follow the manuscripts.

+135,2

Then [finally it may be argued]: If the cognition is [itself] not directly perceived, then there does not occur the [verbalized] thought that “The object was seen” (*drṣṭo ’rthah*).⁴⁵³ [And indeed] we also share this view that [in other words] a qualifier, if not apprehended, cannot be a causal condition for a thought about something [so] qualified. And yet (*ca*) it is not in every case that an object is apprehended as necessarily qualified by awareness [itself]. [For example] in the sentence “The white cow is going along”, it’s not the awareness of the cow (*go* *darśanam*) that is experienced, but rather just the cow itself, qualified by the quality [of white color] and by the action [of going], that is apprehended.

§

Practical behavior toward objects does not require awareness of cognition.

135,6

Surely though what is taught⁴⁵⁴ about this [by Dharmakīrti] is that: “Indeed, it’s not the case that one is aware of an object on account of the existence (*sattā*) of the object [itself], but rather [one is so aware] on account of the existence of the cognition thereof.” [To which we respond:] What of it? [A Buddhist may continue:] Surely [in anticipation of that very question] it is [immediately thereafter] taught that: “That [existence of the cognition], insofar as it is not [itself] established by a means of valid knowledge, is not conducive to practical behaviors presupposing existence (*sattānibandhanān vyavahārān*).” [But] what is the meaning of this statement [as well]? Is it that the existence [of cognition] which one is not aware of (*apratiṭīta*) fails to induce (°*pravartakatvam...nāsti*) also practical behavior in general (*vyavahāra* *mātra*), or does it fail to induce [only] practical behavior qualified by [existence of cognition] itself?⁴⁵⁵

+135,9

To start with, it’s not the first case, because it is [in fact] on the basis of the existence of the e.g. visual faculty, despite one’s not being aware of it, that one observes the undertaking of practical behaviors consisting in thought, speech, and [physical actions like] e.g. retrieving (*ānayana*) [directed] toward color and the like. If you ask, “Assuming that one is not aware of that [existence of the visual faculty], how would one know that it was on that basis [i.e., due to the visual faculty] (*tataḥ*) that those practical behaviors had been undertaken?” [we would answer:] by none other than that very observation of practical behaviors toward that [object], just like [one has] certainty about a seed, demerit, and so on (*bījādharmādi*) on the basis of observing a sprout, pain, or the like.⁴⁵⁶

+135,13

Next [one might say that]: An existence one is not aware of fails to induce practical behavior qualified by that [particular existence itself]. There’s no disagreement about this.

⁴⁵³ For the intended visual sense here, cp. the examples with Devadatta and the visual faculty (*cakṣus*) below at 136,17ff.

⁴⁵⁴ See §2.2 of the *Pūrvapakṣa*.

⁴⁵⁵ That is, practical behavior verbally or otherwise explicitly engaging with the idea of the cognition’s having occurred.

⁴⁵⁶ That is, Bhāsarvajña takes it for granted that the sense faculty is a necessary cause for practical behavior and so can be inferred from observation of that effect, just as a seed is necessary for explaining a sprout and demerit is necessary for explaining pain.

However, given that one does not in every case apprehend practical behavior [as] qualified by that, there is not necessarily [always] awareness of object-awareness.

+135,15 If you object that, so long as that [cognition] is not established [through direct awareness of it], then neither (*api*) is the object established, [we would then respond:] what reason is there for this? Indeed, the cognition of that [object] does not, like an inferential reason, establish the object in such a way that (*yena*) if it [the cognition] failed to be established then so too would its object. Rather, it [the cognition] makes the object (*tam viṣayam*) fit for practical behaviors by its [the cognition's] mere arising (*utpāda mātra*) as the cognition of that [object]. Therefore (*iti*) it is taught [by us] that even if that [cognition] is not established, the object most certainly is [able to be].

+135,18 It is [also] accepted that, at a later time, one [sometimes] also comes to be aware of the cognition of that [object] by way of either direct perception or inference. And there is not in this way a regress [problem] (*anīṣṭhā*), since [the idea that there is] awareness of every cognition is not accepted [by us]. [That is to say] it is only for a cognition of which one is aware that one speaks of another cognition being the awareness thereof. On the other hand (*punar*), it is not true that a cognition of which one is unaware doesn't exist whatsoever, nor that it does not produce its effect. Instead (*tu*), the following is correct: Insofar as one is not aware of something, it cannot be dealt with as real, as in the case of fire [one doesn't yet know about]. And yet (*ca*) it's not the case that if one doesn't know about the e.g. fire, its effect, e.g. the smoke, neither arises nor is apprehended.⁴⁵⁷

+135,23 And so, in this way, just as in the case of the e.g. [unknown] fire, it is on account of a cognition of which one may very well (*eva*) *not* be aware that there occurs an effect which has that [object-cognition] as a causal condition and which is characterized as recalling an object to mind, speaking [about it], retrieving [it], and so on. Therefore, [universal] reflexive awareness, since it is incompatible with that [account]⁴⁵⁸, should not be accepted.

§

The nature of cognition need not involve reflexivity.

135,26 [One might object:] If cognition is not apprehended by itself, then it will end up not having the nature of light (*aprakāśātmaka*), and how can something which is, like a pot, not itself of the nature of light in turn (*api*) illuminate something else? [To this we would respond:] What is this “not being of the nature of light”? Is it [the cognition's] not producing awareness, or [its] not being bright, or [its] not having the nature of awareness (*bodha*)?

(–136,1) +136,2 Firstly, [that it should be the cognition's] not producing awareness cannot be correct, since the visual faculty, even thought it is not known by itself, does produce awareness. [Second] if [one suggests that] it is [the cognition's] not being bright, then [we would say that its] not being bright, [in the sense of its] not having a radiant form (*abhāsvavararūpa*), is in fact due to its being different in character (*vilakṣaṇa*) from the fire element (*tejas*), [and] not

⁴⁵⁷ The genitive *tatkāryasya dhūmādeḥ* is subjective with *anupatti* but objective with *apratipatti*, making this a case of grammatical syllepsis, also known as zeugma.

⁴⁵⁸ Namely, the two-tiered account which involves real causality between separate entities, the prior one of which need not be directly known for the latter one to be knowable.

because of its not being known by itself (*nāsva samviditatvāt*). [Finally] if not having the nature of awareness is entailed [as the last possible option] (*prasajyate*), [we again answer] no [this is wrong], because even if something is [itself] not apprehended (*avidita*), it doesn't [automatically] lose its character. For indeed, it's not the case that a thing's nature ceases (*nivartate*) simply because the thing does not have self-awareness.

136,7

If one asks, "If not self-awareness, what else is the nature of that which is aware (*bodha*)?" [we would answer:] none other than "aware-ness" (*bodhatva*) is the nature of that which is aware (*bodha*).⁴⁵⁹ If one says that this [awareness]⁴⁶⁰ is exactly what self-awareness is, [we would answer:] no [that does not solve the problem], because [cognition's] being self-revealing (*svātmāvabhāsaka*) cannot be established merely through [the use of] other terminology. If one asks, "Since it doesn't make known its [i.e., awareness's own] nature, how could that ["aware-ness"] be the nature of awareness?" [we would answer that it is so] in the same way that fire (*agnih*), even without burning itself, has burning for its nature, [or] in the way that e.g. generous persons (*dātr̄s*), even without e.g. giving away (*dāyaka tva*) their own selves, have the nature of a generous person.

§

Memory's sometimes featuring awareness is not proper evidence for reflexivity.

136,13

Yet surely [one might also say], given that one always (*sarvatra*) recalls an object consistently (*eva*) qualified by awareness (*darśana*), as in the thought "It was seen by me (*drṣṭam mayā*)",⁴⁶¹ how could it not be the case that there is invariably just the one apprehension of the thing and the experiencing [thereof]? [To this we would respond:] This is not correct, because it is observed that one recalls the object also all by itself. To explain: In utterances like "I obeyed my mother and father (*mātarampitaram*)",⁴⁶² "I have five servants and ten cows," "Devadatta is at home," and so on, only the object is recalled, not the experiencing [itself].⁴⁶³

136,17

Surely [one might counter:] the experiencing, too, is [indeed] recalled in these situations, because that person [reporting such things], if asked about it, says "Devadatta was seen [e.g., to be at home] by me." [To this we would answer:] No [that argument fails] because

⁴⁵⁹ This is not merely etymological wordplay. Rather, for the Naiyāyika, the suffix *tva* used in this way picks out a real universal that inheres in the object and underpins our designation for it.

⁴⁶⁰ The opponent here ostensibly takes *bodhatva* in a more general sense, not in the sense of a real universal.

⁴⁶¹ The word *drṣṭa* in this sentence is the predicate or qualifier (*viśeṣaṇa*) to an unnamed subject or qualificand (*viśeṣya*), here a patient of a passive verbal construction (*karmaṇiprayoga*). The particular modality of visual awareness here stands in for any type of awareness.

⁴⁶² For a similar collocation of declined *mātr̄* and *pitr̄* without a coordinating conjunction, as if an *aluk-dvandva-samāsa* (hence my editing with no space), cp. MBh 12.342.12ab "*mātarām pitaram kecic chuśrūṣanto divām gatāḥ /*", rendered in Ganguli's translation (1991, vol. X) as "Some by waiting dutifully upon their mothers and fathers, have gone to heaven" (205).

⁴⁶³ The first two of these examples seem to be = TUS 150,14–15 ↗ (1987), where the context is memory (*smṛti*), and specifically, whether it should be considered to be "without an object" (*nirviṣaya*) and how this relates to its property of "apprehending a previously apprehended object" (*grhītārthagrāhin*) and not being a means of valid knowledge (*apramāṇa*).

this is possible [to explain] also in another way. [Namely] upon remembering the object (***arthasya***), even all by itself, one [first] infers its [the object's] having been seen [by oneself], and then one speaks in this way.

136,19

On the other hand, if this [explanation] is not accepted, then it would result [from your argument] that also the visual faculty would be invariably apprehended together [with the object]. To explain: When asked “How did you come to know about him [e.g., Devadatta, as being at home]?” the person says “He was seen [there by me] with none other than my sense of sight.” If one says, so be it, there is invariable apprehension also of that [visual faculty] (***tasyāpi***) together [with the object], [we would answer:] no [that won't do], because it is contradicted [both] by the cognition [itself] and by your own system of teaching (*sāstra*). For indeed, first of all, it's not the case that anyone is aware of e.g. the visual faculty in a cognition apprehending e.g. a blue object. Nor is [cognition's having] a form of e.g. the visual faculty accepted in your system.

+136,23

What's more (*kim ca*), there is [in that case] the unwanted consequence [for you] that also invariably apprehended together [with the object] is the admixture of [conceptual] verbalization (*abhlāpasamsarga*), since recollection is only ever of something mixed with that. For indeed, even a well-trained person cannot with recollection summon forth [before the mind] (*upasthāpayitum*) a [completely] pure object, nor [can this person], when asked, describe it to others. Moreover, if there is [able to be] direct experience (*anubhava*) of something mixed with [conceptual] verbalization, then this conflicts with [the statement that perception is] “free from conceptualization” and so on,⁴⁶⁴ and the theory of language non-duality (*śabdādvaitavāda*) [also] results.⁴⁶⁵ Therefore, it also cannot be established on the basis of memory that there is invariable apprehension [of the object] together [with the cognition thereof].

§

Cognition is not alienated as a result of non-reflexivity.

137,4

If one says that, if cognition is not self-aware, then it ends up being external, like e.g. color, and [it ends up] not belonging to oneself, like cognition in another continuum, [we would answer:] to begin with, what is this “being external”? If it is [the cognition's] being located in a place outside of one's body, that is incorrect, since it's not the case that e.g. color, for its part (*api*), is external [in this way] as a result of its not being self-aware, but rather [it is located outside the body] because of its having arisen there as a result of the capacity of its [particular] causal complex. On the other hand, a causal complex for e.g. cognition or pleasure is apprehended (*vidyate*) as [being] productive [thereof] only inside the body (*śarīrāntardeśe*), [and] it's for that reason (*tataḥ*) that there is no arising [of such

⁴⁶⁴ See @ Dignāga's PS 1.3 ↵.

⁴⁶⁵ I.e., the position that there is a sole original entity out of which other apparent things seem to arise, and that this entity (otherwise just self-aware cognition for the Vijñānavādin Buddhist) is coextensive with language itself. The real proponents of such a view notably include Bhartrhari and, in a different way, Maṇḍanamiśra.

things] outside.⁴⁶⁶ In this way, the externality of cognition (*śamvedana bāhyatva*) in the sense of [its] being located outside (*bahiṣṭhatvena*)⁴⁶⁷ is rejected.

137,10 Nor can the externality [of cognition] consist in its being a thing apart from the category of cognition (*jñānavarga*), since a thing of a certain kind (*tajjātiya*) cannot be something apart from its [own] category (*tadvarga*). On the other hand, for pleasure and so on, externality in the sense of being a thing apart from the category of cognition is in fact accepted.⁴⁶⁸ Even so, one apprehends (*vedyate*) it [pleasure and so on] as having arisen only in the space inside the body, according to the capacity of its own causal complex, and so (*iti*) one does not call it external.

+137,12 Alternatively (*yad vā*), [one can also argue that] it [cognition] is not external because it inheres in the self, and that it inheres in the self on account of being regulated (*niyamita*)
(-137,15) by its own causes, not as a result of being self-aware. In this way (*iti*)⁴⁶⁹ also when it is said that it [cognition] would “end up not belonging to oneself, just like cognition in another continuum”, that too is inappropriate, because belonging to oneself and not belonging to oneself do not result from self-awareness or the lack thereof but rather from a [real] relation (*sambandha*) to the self or a lack thereof.⁴⁷⁰

+137,17 In your view, however, since all cognitions are apprehended by themselves (*sva-śamvedya*), then [according to your criterion] no cognition [whatsoever] would fail to belong to oneself.⁴⁷¹ Then [one might suggest:] it is [only] for that one [i.e., person] (*yasya*) for whom something [i.e., a cognition] (*yat*) is not reflexively apprehended (*svaśamvedyam na bhavati*) that it [i.e. that cognition] does not belong as one’s own. [To which we would answer:] In that case then, neither preceding or following cognitions nor the unseen force

⁴⁶⁶ Given the Nyāya view that cognition is a property of the *ātman* and that the latter is pervasive (*vibhu*), being rooted in an individual body but also existing beyond it, it bears emphasizing that the point here is that pleasure is generally experienced (*yogis aside*) only as being within one’s body. That this experiencing may be of a direct sort is not very clearly indicated with the *vidyate* here (which I do not understand in the sense of “exist”) or with the *vedyate* in what follows, so I translate both more neutrally as “apprehend (as)”. Also, as a minor point, the *tataḥ* here may in fact mean *tasmāt śarīrāt*, but this would not change the argument.

⁴⁶⁷ This word *bahiṣṭha* is a sandhi-variant of *bahiṣṭha*, via **bahiṣṭha* by way of assimilation and degemination. In contrast to the similar case of *antastha* for *antaḥstha*, *bahiṣṭha* seems to occur relatively rarely, but perhaps not coincidentally, it is the form also appearing in (the printed editions of) Jñānaśrimitra (e.g., 1959, 397) and Prajñākaragupta (e.g., 1953, 430,7).

⁴⁶⁸ Here there seems to be an implicit taxonomy in which certain things forming a category of cognition — ostensibly including recollection (*smṛti*), recognition (*pratyabhijñā*), and direct experience (*anubhava*) — can be distinguished from other, less cognitive psychological factors (designated by the phrase “*sukhādi*” below) that are nonetheless joined at a higher level in the taxonomy. The characteristic qualities of the *ātman* — ranging in number from six according to NS 1.1.10 (*icchādveśaprayatnasukhaduhkhajñāna*), to nine according to e.g. Jayanta (*buddhisukhaduhkhecchādveśaprayatnadharmaśarmaskāra*) — could perhaps be this higher level. I am not sure.

⁴⁶⁹ Note that inherence in the self is the link between the two *pakṣas* in that it provides a convenient answer to both of them.

⁴⁷⁰ Namely, the inherence relation.

⁴⁷¹ I.e., even the cognitions of others would belong to oneself.

(*adṛṣṭa*) accrued in other lives would belong to oneself.⁴⁷² For indeed, there does not also [separately] (*api*) exist an apprehending (*samvedaka*) continuum accompanying all cognitions to which each of those [cognitions] (*tat sarvam*) would belong.

137,21

Now [consider that one suggests that] even that [cognition] which is not apprehended by itself is, by being assisted or assisting (*upakāryopakāraka*)⁴⁷³ [able to be] said to belong to oneself. [To this we would respond:] Come now! In that case, one shouldn't say [in the first place] that it [the cognition], insofar as it is not apprehended by itself, fails to belong to oneself, like cognitions in another continuum.

§

Light as an example case does not help establish cognition's independence.

137,24

Also, in the other statement⁴⁷⁴ that “Cognition illuminates its own self, because it is luminous (*prakāśaka*), like a lamp”, what is the meaning of the phrase “illuminates its own self”? If what is meant is nothing other than its being apprehended by itself, then this example lacks the property to be proved. After all, not even in your own [Buddhist] view is a lamp, which has the nature of visible form (*rūpātmaka*) apprehended by itself. Moreover, since it is not [properly] established for both parties to the discussion (*ubhaya vādy asiddha*) that a lamp has the nature of cognition, the example [simply] is not proper.

+138,3

Now [one suggests that] it [cognition], [by] being independent of things of the same type [i.e., other cognitions] for [the production of] awareness of itself (*svātma vedana*), is said to “illuminate itself”. Then, also e.g. a tactile sensation (*sparsa*) would illuminate itself. And it's not the case that just insofar as something does not depend on a cooperating factor (*sahakāri nāpekṣate*) of its same type for the production of awareness of itself, its self-awareness has been established. Even for light [itself] (*prakāśa*), [this] independence of things of its own type is not established, given that its [the light's] two forms, [namely] of its whole [self] and of its [any given] part (*tadavayavāvayavirūpayoḥ*), are cooperating factors for each other, and also because it [the luminous thing] is [in fact] dependent on the visual faculty's visible form [for production of awareness of itself].⁴⁷⁵ Therefore (*iti*),

⁴⁷² That is, whereas the first problem leveled against the Buddhist theory was that it did not sufficiently restrict cognitions to oneself, the present clarification (“yad yasya...”) results in the opposite problem: Now not enough things (for example, the karma of past deeds) qualify as belonging.

⁴⁷³ This terminology of *upavikṛ* stems from Abhidharma, where it is used to explain the meaning of *pratyaya* in such phrases as *samanantarapratyaya* as a causal factor that “helps” or “conditions” the arising of another entity. Such factors need not all be self-aware to help explain the consistent affiliation of cognitive moments with a given conventional personality despite the absence of an underlying metaphysical person.

⁴⁷⁴ Cp. \div PV 3.329–3.330ab \hookrightarrow : “*prakāśamānas tādātmyāt svarūpasya prakāśakah / yathā prakāśo 'bhimatas tathā dhīr ātmavedini // tasyāś cārthāntare vedye durghaṭau vedyavedakau /*”.

⁴⁷⁵ Both of these points are somewhat difficult to understand, but that which follows in 138,9ff. helps the interpretation. The first point seems to be that “light” (*prakāśa*), here understood in the sense of a lamp with parts like fuel, wick, etc. has visible forms for each part in addition to its overall form. That these forms of the parts and of the whole are also said to be “cooperating factors for each other” (*anyonyasahakārin*) is interesting in that the parts are thereby clarified to be dependent on the whole in a way apparently quite apart from the etiological sense whereby the parts produce the whole, namely, in the sense of part and

based on what does this [independence of things of its own type] (*etat*) apply to something being illuminated by something different than it, like e.g. a pot [being illuminated] due to illumination [nearby] (*prakāśana*)?

138,9 But there is something said about this [by Prajñākaragupta]:⁴⁷⁶ “And even a pot is not [really] illuminated by a lamp. Rather, there [simply] arises something just like that [namely, an illuminated pot] (*tathābhūtasyaiva*) from that [previous, unilluminated moment of the pot] (**tataḥ**).” That is wrong, because momentariness is going to be disproved. [But] even if there were arising in that way, it is still established that, prior to its arising in that way from a different thing, the pot did not have the nature of light, [and] on the basis of that example [so too are also] a lamp and cognition [apparently not of the nature of light and/or known in the prior moment]. So (*iti*) why does one say that there does not exist [any] cognition that is not apprehended? And yet (*ca*),⁴⁷⁷ surely [one should think that] (*nanu*), in the same way that a pot depends on an illuminating lamp even when the visual faculty and the form of its [the pot’s] parts (**svāvayava rūpa**) are present, so too should a lamp also require another [thing for its illumination]. Or else, the pot, too, like the lamp, should not need another illuminator over and above e.g. the visual faculty.⁴⁷⁸

+138,15 Now [a certain Buddhist says] (*atha*):⁴⁷⁹ One may object that (...*iti*)⁴⁸⁰ the pot has two illuminators, [namely] the lamp and the visual faculty, whereas (*ca*) the lamp has only the visual faculty [as its illuminator]. In that case, then [a Buddhist can respond]: “One thing has one, another has indeed two illuminators. / As appropriate to the situation (*yathāsambhavataḥ*), another may not have even one. What’s the harm? //” [In other words] a very incapable thing has two [things as illuminators], another has [just] one, [and] another doesn’t even have one. Such is [simply] the nature of things. Therefore, whatever is the problem
(-139,1) here? Now one might say [in reply] that there is the contradiction of a thing acting upon itself (*svātmani kriyāvirodhaḥ*). This [according to the Buddhist] is wrong, and so he [i.e.
(-139,3) whole being relative entities.

The second point is relatively more understandable, if still laconically put: The light is also dependent on the visual sense faculty for the production of awareness of itself, and this visual sense faculty has its own form (*rūpa*) in the peculiar sense that, according to Nyāya-Vaiśeṣikas, it is made of the same fire element (*tejas*) as that possessed by the external objects it helps bring to awareness, and the fire element imparts this quality of visible form. As in the first point concerning the parts of the lamp, it is not important that this other form be of exactly the “same type” (*sajātīya*) as the lamplight, i.e., also lamplight itself, but rather, only that it be an instance of visible form in general.

⁴⁷⁶ See [= PVA 353,21–22 ↗].

⁴⁷⁷ Cp. ~ PVA 353,25 ↗.

⁴⁷⁸ The text of P was corrupted here, and E’s corrections are not quite right. Read with V (after correction): “*tathā dīpo ‘py anyam apekṣeta*. *ghaṭo ‘pi vā pradīpavac* *cakṣurādvyatirekeṇa nānyam...*” This is considerably clearer than the PVA itself, prompting the question of whether this is Bhāsarvajña’s or a scribes clarification, or whether it may actually represent the more original statement of Prajñākaragupta’s own argument.

⁴⁷⁹ Here continues the at-length treatment of PVA material, including PVA kk. 630–31, starting with NBhū 138,15 ~ PVA 353,29–30 ↗ and continuing through NBhū 139,1–5 = PVA 353,32–34 ↗.

⁴⁸⁰ The “objection” does not clearly state its idea as a problem, and indeed, Prajñākaragupta’s response will essentially condone it. Nevertheless, we can imagine it being brought up as grounds for concern.

Prajñākaragupta] says: “If that [acting upon itself] is the nature of that [cognition], then whatever inconsistency is there? / For if there can be contradiction with a thing’s own nature, then absolutely everything would cease to exist. //”⁴⁸¹

139,6 [To this we Naiyāyikas would answer:] First of all, that “One thing has one [illuminator]...” and so on is incorrect. Even if (*yadi nāma*) in a certain case, one cooperating factor is [sufficiently] capable (*saha kāri sam artham*), and in another case, multiple [cooperating factors are needed], even so, there cannot be spontaneous [i.e., unconditioned] action (*ākasmikī kriyā*). To explain: It ought to deter you for sure⁴⁸² that [Dharmakīrti says that]⁴⁸³ “That which has no cause (*ahetu*) always (*nityam*) [either] exists or doesn’t exist, because it does not depend on anything else. / For insofar as there is [such] dependence, then there

(–139,10) is variable existence (*kādācitkasam bhavah*) [of the dependent thing]. //” Moreover, a thing like a tree or a rock that is devoid of all [necessary] cooperating factors is not observed to be capable of such actions as moving itself around and so on. On the other hand, variation in the numbers (*saṃkhyāvikalpa*) of cooperating factors as observed [empirically] through positive and negative concomitance is accepted [by us].

+139,12 Also [to say] that “If that is its nature...” and so on is incorrect, because that particular sort of [self-knowing] nature is not established. For indeed, if the example case and inferential reason [given for it] are inappropriate, then it is not established that it [i.e. the cognition] makes itself known (*svātmasaṃvedakatva*).

+139,13 And what, in turn, is the meaning of this [inferential reason] “because it is luminous”? Is it having a radiant (*bhāsvara*) nature, or being a cooperating factor for that which is to be known, or being of the nature of awareness? [Firstly] that awareness has a radiant nature is unestablished. On the other hand, that it is a cooperating factor for that which is to be known is [left] inconclusive by the [also cooperating] visual faculty and so on. And in turn, that it is of the nature of awareness is indeed [too] unique [to this case to prove anything]

(–139,17) (*asādhāraṇa*). And yet (*ca*), an inferential reason, if its meaning is not [properly] ascertained (*anirūpitārtha*), cannot make [something else] known. Meanwhile (*tu*), it is denied by none other than the Buddhists themselves that one [namely, an inferential reason property] that is the same [across two cases] (*abhedin*) [merely] by way of a verbal similarity

⁴⁸¹ Cp. PVA 353,21.

⁴⁸² Read with the mss. “...iti bādhakam bhavata eva syāt”, which Yogīndrānanda either did not have in his transcript or perhaps judged to be an interpolation.

⁴⁸³ See = PVSV 35 (p. 22,19–20) ↗ and = PVin 2.58 ↗ for the whole verse, and also, for just the first half-verse here (“*nityam...anapekṣaṇāt*”), = PV 2.179cd ↗ and = PVA 643,19 ↗. The same is also referenced later in NBhū, both at 152,21–22 (see footnote 606 below) and later at 292,13. Finally, there is additional prose discussion by Dharmakīrti at ~ HB 25,7ff. ↗.

The original context of this statement is the causelessness of destruction in the theory of momentariness. That is, since destruction (*vināśa, bhaṅga*) must, for the proponent of momentariness, be independent of all causal conditions, it cannot be produced (*krta*) by anything, or equivalently, it cannot be described as an effect (*kārya*). Being impervious to influence in this way, destruction comes to be “permanent” or “perpetual” (*nitya*) in the sense of never being occasional or variable (*kādācitka*). By contrast, a true effect (*kārya*) must have a cause (*kāraṇa, hetu*) and thereby exhibit conditioned, variable occurrence. For more, refer to the excellent study by Sakai (2010).

(śabdasāmyāt) can bring about inferential awareness (*anumitisādhaka*).⁴⁸⁴

139,20

If one asks what argument there is (*kim pramāṇam*) also (*api*) that cognition is [as Nyāya claims] apprehended by another cognition, [we would respond that] it is that very one (*yad eva*) taught by [previous] teachers (*ācāryaiḥ*): [namely that] cognition is apprehended by an awareness other than itself, because it is something that can be apprehended (*vedya*), like e.g. visible form. [To say by way of objection to this] that (...*iti*), in that way (*tadvat*), it [cognition] will end up being external, not aware, and so on, is incorrect (*ayukta*), because it will be stated [later on] that there can be no refutation of something [i.e., an inferential reason] that is contradicted by a quality that is specific [to only some cases] (*viśeṣavirud-dha*).⁴⁸⁵ [Furthermore] in order to prevent [the problem of] inconclusiveness [for this same argument],⁴⁸⁶ God (*parameśvara*) is to be accepted as having two cognitions,⁴⁸⁷ lest [with-

⁴⁸⁴ The issue, raised by Dharmakīrti at PV 2.12 (“*vastubhede prasiddhasya śabdasāmyād abhedinaḥ / na yuktānumitih pāṇḍudravyād iva hutāśane //*”) in response to early Nyāya creationist arguments for the existence of God, is that inferential generalization from one case to another must retain proper relevance and not merely rely on verbal ambiguity. The more interesting example, given in the following verse, is that one cannot conclude, based on the (particular) shape of an earthen pot, that an earthen anthill, since it too has a shape, also must have been created by the same (conscious) force that made the pot (“*anyathā kumbhakāreṇa mṛdvikārasya kasyacid / ghaṭādeḥ karaṇāt sidhyed valmīkasyāpi tatkr̥tiḥ //*”). It is also like thinking, Dharmakīrti says (end of verse 12), that not just smoke but also anything else that is gray (*pāṇḍu*) warrants an inference of fire.

Whereas Prajñākaragupta’s commentary on the PV’s grammatically ambiguous phrase *śabdasāmyād abhedinaḥ* gives only the equally ambiguous “*śabdasāmyād abhedavataḥ*” (1953, 43), Bhāsarvajña’s own comments are relatively more helpful: “*vastubhede drṣṭe samsthānādīviśeṣe ghaṭādau yaḥ prasiddho viśeṣaḥ puruṣādhiṣṭhānalakṣaṇaḥ, tasya kṣityādigatasyānumitih samsthānādiśabdasāmyenābhedamātrān na yuktā.*” (1968, 480, punctuation corrected). Translation: “[Consider that] there is (yaḥ...) the particular characteristic (viśeṣaḥ) called (°lakṣaṇa) [being due to] human authority which is well established (*prasiddha*) [as occurring] in a particular thing like a pot which is [universally] observed (*drṣṭa*) to have e.g. a particular shape. Inferential awareness of that [human authority] as being in the e.g. earth [not only of the pot but also e.g. of an anthill] merely on account of its non-difference [across the two cases] (*abhedamātrāt*) by way of its verbal commonality of e.g. shape (*saṃsthānādiśabdasāmyena*) is not warranted.” In this way, Bhāsarvajña argues that if a lamp is “luminous” in one sense and cognition is “luminous” in another, that does not warrant the conclusion that another feature (supposedly) possessed by the lamp, that of being self-illuminating, can be transferred to the cognition just because of that mere verbal similarity. This is all the more relevant after it has just been shown above how difficult it is to pin down the precise meaning of “luminosity” for cognition.

⁴⁸⁵ On this latter issue, see NBhū 223,7ff. (under Yogīndrānanda’s heading “*viśeṣaviruddhādidoṣanirāsaḥ*”). Jayanta also speaks to this same question, perhaps more clearly, at NM II,611ff. (Varadācārya’s heading “*viśeṣaviruddhasya na hetvābhāsatā*”), and Vyomaśiva is also aware of it (II,161,17ff.) This point is made here because it is closely related to Dharmakīrti’s principle mentioned just before, about an inferential reason that is “*śabdasāmyād abhedin*”, i.e., the same in name only, which in turn leads to an inappropriate transfer of properties.

⁴⁸⁶ The following curious passage assumes the following objection, not stated here: If all cognitions are to be apprehended by a separate cognition, then doesn’t the thought of God constitute a counterexample?

⁴⁸⁷ In order to avoid God’s having one thought for every single object, each of which he also helps to create from atoms, Nyāya normally holds that God’s cognition is singular in number yet takes all things as its objects. Hence, if God is to be omniscient, then he must also know his own thought, but if he has only the one thought to do this with, then this thought must know itself.

out this] he be not omniscient (*vāsarva jñatva*).⁴⁸⁸ Or [as another alternative] one should [simply further] qualify the inferential reason (*hetu viśeṣaṇa*) with “so long as it [the cognition] is impermanent”.⁴⁸⁹

§

No difference whatsoever can be established if cognition knows only itself.

- +139,24 And so, in this way, because it is unproven that it [cognition] knows itself, it is also unestablished that there is invariably apprehension together [of the object and its cognition],
(-139,26) and so it is not established that there is no difference between cognition and its object. And therefore, the following is also incorrect: “That form of blue is its [cognition’s] nature, as is

⁴⁸⁸ A long scribal comment on these two sentences has been interpolated into the text of V (see apparatus and transcript). Most importantly, instead of *vāsarvajñatvam* in the sense of a justification of the first of two alternative solutions, this comment clearly reads *vā sarvajñatvam*, i.e., with space, thereby effectively proposing what becomes the second of three separate solutions (the last being the upcoming one about the additional qualifier “*anityatve sati*”). Of course, given their standard use of *scripto continua*, the three manuscripts do not themselves give us any clue as to the better reading. And indeed, Vādirājasūri (c. 1025) in his *Nyāyaviniścayavivarāṇa* (a commentary on Akalāṅka’s work) apparently does interpret this as a “trio of claims stated by Bhāsarvajña” (*bhāsarvajñena pakṣatrayam upanyastam*). Nevertheless, I do not follow this reading, for the following reasons.

If reading *vā sarvajñatvam*, i.e., with space, then the first solution (see more on which below) is left extremely terse, and what becomes the second of three solutions is very radical and strange: God knows without knowledge. Here is the full translation of the scribe’s comment: “But even though God’s cognition is known, it is not known by cognition other than itself, and so it [the above argument] would be inconclusive. In order to avoid that, two cognitions for God should be accepted. And once one accepts two cognitions [for him] (*jñānadvayāṅgikāre*), then also God’s cognition, which is apprehended, is indeed apprehended by a cognition other than itself, and therefore it [the argument] is not inconclusive. Alternatively, God could be accepted to be omniscient without [any] cognition (*jñānavyatirekeṇa*). [That is to say] he should be accepted as omniscient without [any] cognition [whatsoever] (*jñānenā vinā*) in order to avoid the inconclusiveness.” This reading is not impossible, but I find it relatively unlikely. It bears noting, too, that the P1 scribe was likely Jain and could very well have been influenced by the *Nyāyaviniścayavivarāṇa*.

Alternatively, if reading *vāsarvajñatvam*, i.e., without space, then the first solution is that, in order to safeguard both the current argument about cognition and God’s omniscience, God should have two cognitions. An uncharitable reading of this argument would imagine these two cognitions working in series: one apprehending all things, and the second apprehending the first but itself remaining unrecognized. This obviously just kicks the can down the road, for now the second cognition cannot be known — and yet, this seems to be precisely the idea found in the Madhvācārya’s Dvaita Vedānta Anuvyākhyāna (GRETIL Sanskrit e-text), dated to the thirteenth century: “*jñānam viśvādhigam tv ekam tajjñānaviśayam param / iti jñānadvayenaiva sarvavit parameśvaraḥ //*” (2.2.149).

On the other hand, I think a more charitable reading would imagine the two cognitions working in stereo: each apprehending all things and also the other cognition. Unfortunately, this is mere speculation at this point, since I do not yet have any textual support for it. But still, I think it seems like the best of the options I can discern.

⁴⁸⁹ This solution would simply exclude God’s cognition from the purview of the inference. God’s cognition is said to be permanent in the sense that it has always existed, like atoms, since if God’s cognition had at some point been created, this would create additional problems.

this experience. / It [the cognition] is described as being an experience of e.g. blue, despite also being an experience of its own nature. //”⁴⁹⁰

140,1

Furthermore, does this [inferential reason] invariable apprehension together possess (‘*upapanna*) [the proper] positive and negative concomitance [with the target property], or does it lack it? Firstly, if it lacks the positive and negative concomitance [with its target property], then it cannot make [that specific target property] known, as that would be absurd. And [secondly], how can its [the reason’s] possession of the [proper] positive and negative concomitance [itself] be known if there is no apprehension of difference? Indeed, no one can apprehend positive and negative concomitance [that a thing has] with its very own self. Nor can one establish negative concomitance, for example, on the basis of a merely erroneous apprehension of difference, as that would be absurd. Nor, if there is no apprehension of difference whatsoever, is it possible even to differentiate error from non-error, and [so] it would end up that any view could be established simply by mentioning it.

140,7

Now [one suggests:] it is specifically the difference between cognition and object that is not apprehended, not also [the difference] between two cognitions. [We would respond:] That is incorrect, since, on the view of self-awareness, also the difference between two cognitions cannot be apprehended, as [already] mentioned at the beginning of the consideration of variegated color.⁴⁹¹

+140,9

Furthermore, the difference between two cognitions cannot be known, first of all, with direct perception, because that [perceptual cognition] apprehends only itself. Indeed, without apprehension of the other, there can be no apprehension of the difference between self and other. And if one assumes [this] apprehension of the other, then the claim that “There is no other thing to be experienced [by thought]” and so on ends up being [directly] contradicted. Additionally, the [invariable] apprehension together would [then also] be inconclusive [as an inferential reason].⁴⁹² And yet (*ca*), it’s [simply] not appropriate that there be apprehension by one [cognition] that does not have a certain form of another cognition [that does have that form], because [in that case] there could end up being even an apprehension of e.g. blue by means of, indeed, a cognition with an e.g. non-blue form. And if it [the one cognition] did have that [same] form [as the other cognition], then it would simply be exactly that [other cognition]. How [then] could one establish the difference even between the two cognitions [in their respective roles] as apprehended and apprehending? Alternatively, if it [i.e., this difference of roles] could be established, then it could similarly

⁴⁹⁰ See [= PV 3.328 ⇔]. This is also quoted at [= PVA 353,5–6 ⇔], where the ablative *nīlādyanubhavāt* in *pāda* c is not compelling as a genuine variant. As I understand it, the distal pronoun *asau* expresses the objective appearance of the blue object, whereas the proximal pronoun *sah* expresses the subjective appearance of the experience.

⁴⁹¹ See NBhū 115,5–6: “*svasaṃvedananiṣṭhatvenaikasyaivākārasyānubhavāt*”, etc. In what follows (“*api ca...*”), there is also a breakdown by the Buddhist’s two accepted means of valid knowledge (*pramāṇa*) by which the difference might theoretically come to be known.

⁴⁹² That is, one would be allowing that there are in fact cases where there is a real other to be known, despite the (apparent) apprehension together (*sahopalambha*) of object and cognition, and this would poison the well: While it might be true that most of the time one thing appears with two aspects, it would also then be possible that, at least sometimes, there are genuinely two things appearing, and one would not be able to tell the difference between the two scenarios.

be [established] for the object and cognition, too. Therefore, it cannot be through direct perception that there is apprehended a difference between two cognitions themselves.

+140,15 And neither [can it be apprehended] by way of inference, since that [inference] is preceded by perception. Indeed, if there is no apprehending whatsoever of pervasion through direct perception, then an inference cannot take place (*na...ātmānam āsādayati*).

+140,16 Thus, in this way, for those who advocate non-difference between apprehended and apprehending [forms of cognition], there is no apprehending of other cognitions even (*api*) within one's own continuum, [and so] how could one establish other continua? And therefore, also the tidings (*vārtā*) of e.g. other lives, the Buddha, etc. have been driven quite a ways off, such that each and every systematic Buddhist teaching (*sāstra*) is [made] unintelligible. For if difference [itself] is not established, then [even] the common behavior of proving and disproving [in debate] and so on becomes impossible.

140,21 Then there is the view that (*atha matam*) the apprehender's non-difference with the apprehended [object] is accepted, but not [its non-difference] with the determined [object] (*adhyavaseya*). In turn [one asks the person with such a view] (*atha*), "What's the difference between the apprehended and the determined [objects]?" [In response to which] the following is taught [by them]: That form which really appears (*vastutah*) in the awareness is the apprehended, whereas that [form] which is superimposed is the determined. Alternatively, whatever appears in awareness is the apprehended, and that about which, although it has not [really] appeared, there is a false impression of it as having been apprehended (*grhītābhīmānah*)⁴⁹³ is what is determined, [and] it is only through determination of that [determined object] that action occurs. Thus it is taught⁴⁹⁴: "Because action occurs (*pravartanāt*), not toward an [external] object [itself] (*anarthe*), [but instead] toward an appearance of one's own, [namely] by determining the object, therefore also error is a means of valid knowledge, since, through [just such] a [determinative] connection with its object, it does not deviate from it."

+140,26 [To this we respond:] That too is incorrect, for in just the same way that a determination of something external cannot be a means of valid knowledge [about that external thing], since, if there can be no apprehension of its connection with the [by definition] utterly unapprehended external object, then its lack of deviation [from that external thing] is unestablished, in the same way neither can a determination of the difference between the cognitions in one's own and in other continua be [a means of valid knowledge about that difference].⁴⁹⁵ [Moreover] if something can be a means of knowledge just by not disagreeing with people's common practical behaviors, then also the determination of something [truly]

⁴⁹³ For the perhaps relatively counter-intuitive grammar of the seeming adjective-noun compound *grhītābhīmāna*, especially as compared to E's appealing noun-noun emendation *grhītatābhīmāna*, cp. Bhāsarva-jña's similar construction "...yathā kvacid devadattādāv adṛṣṭe 'pi drṣṭābhīmānah" in the NBhū (1968, 518). That is, the adjective rather than the noun does seem to be intentional, and then we can read *grhīta* as substantivized.

⁴⁹⁴ See = PVin 47,7–8 ↵, and cp. ~ NBT 71,4 ↵.

⁴⁹⁵ Here the discussion briefly returns to the question raised above about solipsism, i.e., the basic distinction between one's own and others' minds, conceived of as continua of cognitive elements. This is, on the one hand, tangential to the larger discussion about otherness as relates to the objectivity of seemingly external objects, but on the other, also a potentially devastating logical extension of it.

external, by simply not disagreeing with people's behaviors, should be allowed to establish that [sort of external] object, since it provides the same benefit.

141,3

Now [one might say the following]: Both another cognition of one's own and a cognition in another continuum are apprehended (*drṣṭa*) by none other than themselves, and so (*tena*) a determination of them, insofar as it arises from them, [and] even though it is [in a certain sense] erroneous, can be a means of valid knowledge. On the other hand, an external object is not [ever definitely] experienced by [anyone or] anything, so how could a determination thereof be differentially established to have arisen from it and to be a means of valid knowledge?

+141,6

[To this we would answer:] No [this is wrong], because determination of a thing cannot lead to knowledge of its absence. In the very same way that, by means of a determination of something external which [in reality] apprehends only its own self, it cannot be ascertained (*avavgam*) whether an external object can be apprehended (*saṃvedya*) or not, nor can this be ascertained about another cognition by means of a determination thereof. For there is no distinguishing feature between these two [cases] (*atra*). Meanwhile, recollection (*smṛti*) most definitely consists in determination, and so also recollection (*smarāṇa*) does not establish another cognition [as the true object of cognition].

§

The difference required between cognitions might as well be granted to objects, too.

141,9

If one asks how it is that self-awareness, in apprehending its own form that has arisen from another cognition, fails to establish the [said] other cognition (*jñānāntara vyavasthā-pakam*), [we would answer by pointing out that] the same consequence [also] applies when asking how one [i.e. a cognition] arisen from an external object and apprehending its own nature fails to establish the [said] external object. Moreover, it's not the case that the self-awareness itself can tell the difference between its definitely having arisen from another cognition rather than from an external object. Thus, in this way, because positing (*sthāpana*) an external object brings the same benefit as positing another cognition, the external object does not fail to exist.

+141,14

Furthermore (*ca*), the difference between these two [cognitions] (*anayor api*) has not been established [by you]. And yet (*ca*), the inferential reason of "apprehension together" and so on is based on that [difference] (*tataḥ*).⁴⁹⁶ [That is to say] apprehension of difference is the foundation for comprehending the three [necessary] conditions [of that or any inferential reason]. [So] in doing away with that [difference], one simply defeats oneself. Thus, how on that basis can it be established that external objects don't exist? In this [same] way, also that [argument] beginning "If awareness has the form of blue..." is defeated.

+141,17

To explain, [some] concluding verses (...*iti samgrahaślokāḥ*): If [one] cognition has the form (*ābhā*) of another cognition, what means is there for knowing the difference between them? / If it [the first cognition] does not share the form (*saṃrupa*) of another cognition,

⁴⁹⁶ Edited slightly differently, with the emendation *sahopalambhādiko 'hetuh*, this could also be translated as "and therefore [that inferential reason of] co-apprehension and so on is not a [valid inferential] reason." The argument would be the same.

then how does that [first cognition] apprehend that [other cognition]? // Just as [epistemic] connection and agreement (*sambandhasaṃvādau*) are difficult to account for in the case of external objects, / so are they [difficult] also in the case of another cognition for one who devotedly upholds (*°niṣṭhavādin*) self-awareness. // If one can establish (*°prasādhana*) difference between cognitions on the basis of agreement with what is well known to [ordinary] people, / then on the basis of that very same [agreement], external objects also end up being proven (*samsiddhi*). // Just as proof of the external [object] is not recognized (*īkṣyate*) through [your] subtle inspection (*sūkṣmekṣikā*), / so too is proof of the other cognition [not recognized by you]. Even the [very] difference between the one and the other is a difficult matter [for you]. // Just as a cognition cannot know its own difference from an external thing that is not apprehended, / so [can it not know its difference] from another cognition [that cannot be apprehended], as there is no difference [between these two] as regards [their] imperceptibility (*parokṣatva*). // If, on the basis that cognition of things with other forms (*vilakṣaṇākāra*) would be impossible otherwise, / one can establish the difference between [two] cognitions, then why not [let] this [difference] also [be established] for the external object? //

142,2

Thus, in this way, one who denies the difference between apprehended and apprehender must accept none other than non-dualism. For if not, then also [what was said earlier, namely]⁴⁹⁷ “In the same way that it [awareness], which [in reality] is without forms of known and knowing, is [apprehended] by deluded ones...” and so on, is inappropriate, since the apprehension of an external object has been shown to provide the same [theoretical] benefit as apprehending another cognition. And in turn (*api*), if one accepts non-dualism, then contradiction is certainly unavoidable, as has been stated. This then is the well-known pattern (*nyāya*) of “got to the tumor, lost the eye”⁴⁹⁸ that has befallen (*āyāta*) the Buddhists.

+142,7

Therefore in order to avoid this sort of contradiction (*itthamvirodha*), it should be ac-

⁴⁹⁷ Cp. above at 109,12–15 for the first quote of PVin 1.39.

⁴⁹⁸ This same *nyāya* is found in various works, ranging from this longer formulation (cp. Jayarāśi’s exact = TUS 148,12–13 → and also Uddyotakara’s close ≈ NV 123,16 →) down to the more minimalistic “*gadupraveśe ‘kṣinirgama*” in PVA (1953, 520,3–4). It speaks of attempting to get rid of one problem, (e.g., a tumor impinging on the eye; the dictionaries’ “goiter” is old-fashioned) but thereby causing a bigger one (e.g., the eye itself, perhaps specifically the pupil, is damaged or lost, functionally speaking, during the treatment). In other words, in English, “out of the frying pan, into the fire”, or, in German, “vom Regen in die Traufe kommen” (“out of the rain, into the gutter”). Yogīndrānanda’s footnote in the NBhū is moving in the right direction (1968, 142n2), but more immediately helpful is how Franco (1987b, 392–393n137) refers to Haribhadrasūri’s Anekāntajayapatākā and specifically, Jinavallabhasūri’s Vivaraṇa thereon for the interpretation given above. In Jinavallabhasūri’s words: “*kasyacid akṣisamīpe tathavidhabādhāvidhāyakam gadūtpannam. tatas ca kenacid bhiṣajā tathāvidhauṣadhaprayogena tathopacari-tam yathākṣimadhye tat praviveśa. praviṣṭe ca tatrākṣiṇi tatkṣaṇād eva tadutpāṭitā kanīnikākṣitārikā bahir nirjagāmeti prastutadrṣṭāntārthaḥ.*” A small point: Against the Vivaraṇa translation of both Franco (ibid.) and Kellner (1997, 26) thereafter, I think it makes more sense to take *ausadha* as the logical subject of the action *pravviś*, coming into contact with the *gaḍu*, rather than *gaḍu* (normally masculine, but seemingly neuter here) coming into contact with the *akṣitārakā*, since I don’t see how something like a tumor would be moving, nor how it could dislodge a pupil by entering it, nor how such entering would make much sense for this context as an initially positive first step; on the other hand, it is relatively clear that getting medicine meant for topical application into the eye could cause blindness. For more on this maxim, see also Sakai (2010, dissertation, 188n7) and Eltschinger, Krasser, & Taber (2012, 39n32).

cepted that an external object is apprehended by a cognition which does not at all have the form of that [external object]. And that external object is, first of all, generally (*prāyas*) apprehended by means of the [object's proper] form as it actually is (*yathāvyavasthitenaivākārena*)⁴⁹⁹. In certain cases, however, it can appear also with a superimposed form, on account of *timira* and so on. It is on this basis [of real external objects] (*ataḥ*) that it is possible also to differentially establish error and non-error, and not if one is aware [only] of cognition devoid of other limiting conditions (*anyopādhivinirmukta*).

§4.2 On “Lacking Object Support” (*nirālambanatva*)

Cognition’s supposed lack of object support cannot be proved.

§

Dreams are insufficient grounds for denying all object support whatsoever.

142,12 But [then] another [namely, Prajñākaragupta] says [the following]:⁵⁰⁰ “All cognitions being discussed [here] (*vivādāspadībhūta*)⁵⁰¹ are without object support, because they are cognitions, like the cognitions in dreams and so on. And in the same way that, in the state of sleep, despite a lack of external objects, there occurs, based only on awareness of mere forms of cognition, [both] the determination of external objects and the differentiation of error from non-error, just so is it also in the waking state. The appearance of difference, as well, should be regarded in this way. And so, it is established that they [cognitions] in fact have no object support, but the appearance of difference [itself] is not [thereby] negated, and so, there is in turn (*api*) no obstacle to the arising of inferential cognition (*anumānotthāna* *virodha*). And even though the appearance of difference is erroneous, it is [still], by not disagreeing with everyday practice, a means of valid knowledge,⁵⁰² and so it’s not true that positive

⁴⁹⁹ For the compound *yathāvyavasthita*, cp. footnote 367 above on *yathāvasthita*.

⁵⁰⁰ If understood as drawn from PVA, this phrasing of the argument seems closest to being [= PVA 359,4 →] (*sarve pratyayā anālambanāḥ, pratyayatvāt, svapnādipratyayatvāt*), near the outset of the discussion, where Prajñākaragupta clarifies this to be a “clarification of the argument” (*pramāṇasya pariśuddhiḥ*). This is repeated (with small changes) soon after at [= PVA 361,25 →] and again, as the argument is wrapping up, as [= PVA 378,25–26 →]. We can also identify the phrase *vyavahārāvisamvādāpekṣayā pramāṇatvāt* near the end of the NBhū paragraph (see footnote 502 below) as a direct quote. Most of the paragraph here, however, is Bhāsarvajña’s own free formulation of the old Buddhist argument, likely drawing on multiple sources. For more on the long history of this debate, see e.g. Taber (1994). For Kumārla’s most concise statement of his version of the dream argument, which has a different *pakṣa* (namely, “*stambhādipratyaya*”) and a different *sādhya* (namely, “*mityā*”), see [= ŠV nirālambanavāda 23 →]. Bhāsarvajña will continue literally quoting the PVA again at 146,7ff. below.

⁵⁰¹ This qualification, although not in the above-mentioned PVA formulations of the argument, is attested by both major manuscript witnesses of the NBhū, and it is found elsewhere in PVA in connection with this context. Bhāsarvajña also quotes the argument without the qualification below at 143,11. Cp. also the related counterargument at 144,23–24 with a similar variant reading in V (“*vivādagocarāḥ sarve pratyayāḥ sālambanāḥ*”, possibly representing an interpolated comment).

⁵⁰² We can identify this phrase *vyavahārāvisamvādāpekṣayā pramāṇatvāt* as [= PVA 360,18 →], likely drawing on [= PVin I,44,2 →], which in turn is also reflected in [= PST I,75,10 →].

concomitance and so on are unestablished.

142,19

[To this we would respond:] First off, this inferential reason is suspected to be inconclusive (*samdigdhānaikāntika*)⁵⁰³, because it has not been established that being a cognition and having object support are opposed [to each other]. Moreover, it's not true that the [requisite] negative concomitance is established merely by saying that, for some cognitions, one does not observe the object support as it is [later] determined to be (*yathādhyavasita*)⁵⁰⁴, because this [principle] is not accepted on your view either. And this is [precisely] what is taught [by Dharmakīrti]: "There cannot be [confirmed] a lack of deviant occurrence [of the inferential reason] among dissimilar cases merely through non-observation [thereof], / because deviation is [still] possible, like in the case of cooking rice in a pot. // That [inferential reason] for which (*yasya...tat*) negative concomitance is demonstrated merely through non-observation, / because it is [thereby] grounds for doubt, is said to have a remainder (*śeṣavat*). //"⁵⁰⁵

143,3

Then [someone might suggest that]: One thing [simply] cannot be the support of another. [One might ask:] What problem is there with this? [Namely, they will say] the consequence that all things would be the support [for a given thing], since they are [all] equal in their otherness. [To this we would answer:] No, [this argument fails] because, in spite of difference, restriction is [still] possible, as in the case of causes. After all, the cause of smoke is neither its very own self nor all [other] things [just] because of [those things'] being equal in their otherness.

+143,5

[Now one might object as follows:] Also, if there is arising of awareness, then how would the [external] thing, which would, like before [that arising], [still] not be light, become light? Alternatively, when it [the object] arises as something with the nature of light, that very thing [i.e., the luminous object] is awareness, since that [awareness] has light as its characteristic mark. If so, [we would answer] no, because once non-momentariness is established, then it is only on the basis of a [physical] connection between the object of that [awareness] and light that it [that object] can be illuminated, as with a lamp and a pot.⁵⁰⁶

+143,8

Moreover, a cognition is not apprehended by multiple knowing agents, but the opposite is true of an external object. To explain: Upon hearing that a dancer will dance, and

⁵⁰³ This is as opposed to being *niścītānaikāntika*, i.e., definitively known to be inconclusive.

⁵⁰⁴ For the compound *yathādhyavasita*, cp. footnote 367 and footnote 499 above on *yathāvasthita* and *yathāvyavasthita*, respectively. Here, the root is *vso* rather than *vsthā*, but either way, the basic underlying idea of a correspondence theory of truth remains the same: According to a Nyāya-Vaiśeṣika, although a given case may involve erroneous cognition, how an object really is (*yathāvasthita*) can usually be successfully determined (*adhyavavso*) at a later time through sublating and corroborating cognitions.

⁵⁰⁵ See [= PVin 2.65 ⇔] and [= PVin 2.66 ⇔], and also the earlier [= PV 1.13 ⇔] and [= PV 1.14 ⇔]. The nearly identical prose in both texts ([PVin I,92,4–6 ≡ PVSV 10,15–18 ⇔]) explains what is meant by the example case: "*na hi bahulaṃ pākadarśane 'pi sthālyantargatamātrena pākaḥ sidhyati, vyabhicāradarśanāt / etāvat tu syāt — evamsvabhāvā etatsamānapākahetavaḥ pakvā iti / anyathā śeṣavad etad anumānam vyabhicāri //*" (PVin). That is, just because rice is in a cooking pot doesn't mean that it is definitely already cooked, although that has been observed many times before. Rather, only insofar as both the common nature and the actual occurrence of the (common) requisite causes are known to obtain should one conclude that the rice is cooked. Otherwise, the inference has a loose end and cannot reliably prove anything.

⁵⁰⁶ I.e., an identity relation will not work. Rather, once entities are accepted to be enduring and separate from each other, it will be up to an ontologically real relation to bring them back into touch.

wanting to see her, multiple people take action⁵⁰⁷ and then [they all] equally (*aviśeṣena*) see her. If one says that this also occurs in a dream, [we answer that] no [it is not the same], because in that case [of dream cognition] there can be no chain of corroboration (*uttarotarasamvāda*).⁵⁰⁸

§

Inference itself requires object support and cannot be erroneous.

- +143,11 [And] when he [Prajñākaragupta] says that “All cognitions whatsoever are without object support (*ālambana*)”, there’s a contradiction [inherent] in the [very] uttering of his statement. To explain: You’ve put forward this statement as an inferential means (*sādhanatvena*) for imparting [something] (*pratyāyana*) to someone else, and yet (*ca*) apprehension of the other (*parāvabodha*) does not exist for you.⁵⁰⁹ Alternatively, if [you allow that] there is apprehension [of the other], then, because that very apprehension of the other [necessarily] has object support, there would for that very reason (*tenaiva*) be a lack of [the proper] exclusivity [for the inferential reason] (*anekāntah*).⁵¹⁰
- +143,14 Moreover, if there is no apprehension of the other, then how does one [cognition] apprehend that all cognitions are cognitions?⁵¹¹ And if it is not apprehended, the presence of the [inferential reason] property in the inferential locus (*pakṣadharmaṭva*) cannot assist [the inferential reason] in making known [the target property] (*gamakāṅga*)⁵¹². Likewise, if the example case (*dṛṣṭānta*) is not established, then it [the reason property] cannot [on its own] make known [the target property]. Alternatively, if it [the example case] is established, then it [the reason property] is inconclusive.⁵¹³
- +143,16 Similarly, if an inference, for its part, has for its object all cognitions, then that [inferential

⁵⁰⁷ Namely, by going to where she is.

⁵⁰⁸ That is, in contrast to experiences had while awake, dream experiences cannot indefinitely withstand checks by subsequent corroborating and sublating cognitions.

⁵⁰⁹ Read the *para* of *parāvabodha* as an objective genitive rather than as a subjective genitive. Granted, Bhāsarvajña does consider the Buddhist to have failed at the task of avoiding solipsism, i.e., accounting for others’ awareness, and that problem does also threaten the coherence of interpersonal communication. However, it is not the absence of others’ streams of consciousness that is the most immediate problem here. Rather, it is the failure to ground the very concept of “the other” within a given person’s mental continuum, namely as supported by externally existing persons other than oneself. Cp. the similar discussion of *parapratīti* above at 140,10, where the implicit objective genitive is clearer.

⁵¹⁰ That is, one would have found a counterexample wherein something is a cognition (*pratyaya*) and yet also has object support (*ālambana*).

⁵¹¹ In other words, how does one prove that the reason property, *pratyayatva*, is present in the inferential locus, *sarve pratyayāḥ*.

⁵¹² For correcting according to V’s reading *gamakāṅga*, cp. NBhū 326,29: “...aniścitam pakṣadharmaṭvam katham gamakāṅgam?”

⁵¹³ That is, if the example case is “established” (*siddha*), then this implies that one accepts the objective existence of at least that one thing, and so, by way of that very example case, at least one cognition has object support and so constitutes a counterexample, making the inferential reason inconclusive. The scribe of P1 makes the point concisely in a comment: “tvatpratyayasya dṛṣṭāṁtena sālaṁbanatvād ity arthaḥ”.

cognition], certainly, has support. If not, then how is it established [by such an unsupported inference] that all cognitions are without support? If one says that every inference is accepted as being a means of valid knowledge [in fact] only insofar as it has no support, such that this is not a problem, [we would answer that] that's incorrect, because something without support cannot be a means of valid knowledge. After all, it is not [simply] a matter of stipulation (*pāribhāṣika*) that a cognition be [said to be both] a means of valid knowledge and without support. Rather, what one says is: That by means of which an object of knowledge is discriminated is a means of valid knowledge, whereas that [cognition] in which nothing appears is without object support. So, how is there no contradiction between these two [properties]?

143,22

If one says that there is no contradiction because although it [the cognition] has itself for support, it is said to be “without support” (*nirālambana*) as a result of its lack of dependence (*anapekṣayā*) on other things for support,⁵¹⁴ [we would answer:] is it then now [claimed to be] the case that (*tat kim idānīm*) it [a cognition] (*tasya*) can be a means of inference (*anumāna*) in dependence on itself alone? And yet (*ca*), it cannot be that by means of something that has only itself for an object, other things can be established as either lacking or having support (*nirālambanatvam sālambanatvam vā*), because those [other things and their properties] are not the object [of that merely self-apprehending cognition]. After all, that which is not the object (*viṣaya*)⁵¹⁵ of a thing cannot be established by that thing. For if it were so established, then, just like that thing's own nature (*ātmasvarūpavat*),⁵¹⁶ that very [established] thing would [in fact also] be the object [of that establishing factor], since an object is characterized [precisely] as that which is established.

+143,26

If one says that, like in the case of the jewel [seen through the keyhole], even something that is not the object (*aviṣaya*) can be established [e.g. by a cognition] just so long as there is no disagreement,⁵¹⁷ [we would answer:] no, because insofar as it is [truly] non-disagreeing, the cognition of the jewel is not established as having light [from the lamp] for its object.

⁵¹⁴ V supplies most of the missing material here, but instead of my emended negative *anapekṣayā*, V reads positive *apekṣayā*, which one could translate as “it is said to be ‘without support’ with respect to (“apekṣayā) support by other things.” This is of course also possible, and it doesn’t change the argument in any major way, but on the basis of Bhāsarvajña’s seemingly more frequent use of even instrumental *apekṣayā* and *anapekṣayā* in direct causal senses elsewhere in NBhū, I do opt for the emendation here. The same goes for translating the following *svātmāpekṣayā* as “in dependence on itself” rather than “with respect to itself”.

⁵¹⁵ “Object” here is meant in the sense of “target scope”. That is, a *sādhya* is the target (*viṣaya*) of a *hetu* in that the *hetu* establishes (*sādhayati*) the *sādhya*. It should also be remembered that while “*sādhya*” is sometimes meant in the narrow sense of the target property itself (*sādhyadharma*), it is often, such as here, meant in the sense of the inferential locus qualified by that target property (*sādhyadharmpakṣa*).

⁵¹⁶ Here, *ātma-svarūpa* is simply synonymous with *sva-ātma* above, both meaning merely “own nature”, which is said to be the sole object (*ekaviṣaya*) of the Buddhist’s cognition.

⁵¹⁷ This is the famous example of the jewel that — at least according to Dharmakīrti’s commentators, if perhaps not for Dharmakīrti himself; see McCrea & Patil (2006, 310n29) — one finds in a room after having seen lamplight coming through the keyhole (*kuñcikāvivara*), ostensibly after filtering through said jewel and taking on its color. See [@ PV 3.57ab ↗](#) and [@ PV 3.57cd–58 ↗](#) for the *locus classicus*, which Bhāsarvajña quotes in full at NBhū 196,1–4. For the present *pūrvapakṣa*, “established” (*Vsidh*) apparently means brought about in the mind in an epistemically reliable way that corresponds to successful pragmatic action, namely the action directed at getting the jewel. On the other hand, according to this Buddhist perspective, the object (*viṣaya*) of the cognition, in the sense of its actual underlying cause, is the lamplight.

Alternatively, if [we allow that] it is [so] established, then that [very situation] constitutes none other than disagreement, so how can it [the thought of the jewel] (*tasya*) be non-disagreeing?⁵¹⁸ That it is only the cognition of the jewel subsequent to that [initial, mistaken cognition of the lamplight as jewel] that is a means of valid knowledge, we shall discuss [later].⁵¹⁹ And, as was already shown earlier, the same theoretical benefit is had from the establishment (*siddheḥ*) of external objects as from establishing other cognitions [as the support].

+143,29 In this way, like in the case of establishing other cognitions [as the support], so too is it established that blue etc. does not have the nature of awareness. [That is to say] it's not right [to conclude] that, [just] because a given cognition of an external object may [sometimes] be observed to be [only] a seeming means of knowledge (*pramāṇābhāsa*), therefore all cognitions of external objects are only [ever] seeming means of knowledge, because [otherwise] the result would be that, based on [just] a [single] example case of inferential cognition in the state of sleep, [also] all inferences would end up as [mere] seeming means of knowledge.⁵²⁰

+143,32 If one should ask, “So, what’s wrong with that?⁵²¹ There’s only [ever] inference without object support, nothing else. If also inference, which is without support, is [therefore for you] not a means of valid knowledge, then what proof (*siddhi*) of [external] objects do you

But consider also Prajñākaragupta’s radical take on the idea. For him, given the theory of momentariness, this example actually serves as a metaphor for how all valid awareness, both perceptual and inferential, is mistaken in the sense of being disconnected from its eventual practical object. See McCrea (2011) for an incisive discussion of this topic.

⁵¹⁸ Whereas for the Buddhist, disagreement (*visamvāda*) is a pragmatic matter, being a function of the relationship between the phenomenal object (e.g., a falsely appearing jewel) and the eventual outcome (e.g., an actual jewel obtained), for the Naiyāyika, it is instead a matter of correspondence between the phenomenal object (e.g., the apparent jewel) and the real thing underlying that appearance (e.g., the lamplight actually being seen) which, although having a false form superimposed on it, is the external object support of the cognition. Thus, Bhāsarvajña’s criticism of the opponent’s statement is effectively that the latter has mixed the Naiyāyika’s use of the word “object” (*viṣaya*), in the meaning of the real thing-in-itself that the cognition is truly about, with the Buddhist’s pragmatic theory of “disagreement” (*visamvāda*) which features no such truly existing external entity.

⁵¹⁹ This seems to point at NBhū 197,12ff., but that discussion does not directly assert that the later, sublating cognition (*bādhakajñāna*) of the jewel is a means of valid knowledge. Rather, what the argument there seems to say, by pointing out that even the later cognition of the light coming directly from the jewel itself (e.g. while sitting in one’s hand) is thereby still at a remove from the jewel, is simply that Dharmakīrti cannot maintain that inference is a means of valid knowledge while emphasizing such gaps between thought and reality and not admitting full correspondence with reality at some level. The discussion can, however, be read as implicitly suggesting that the later cognition of the (light from the) jewel should indeed be considered a means of valid knowledge, since most everyone would accept this.

⁵²⁰ Idealist arguments from hallucination (including those focusing on sleep) typically focuses on perception. Here, by contrast, is demonstrated the absurdity of extending this argument to the epistemic modality of inference: Clearly the irreality involved in making a single inference in a dream cannot create so much doubt as to completely invalidate all waking inferences.

⁵²¹ As is clear from what follows, the Buddhist opponent doesn’t mind the fact that inference is without object support, nor even that it is, from a certain perspective, erroneous. However, if the “*tataḥ*” here refers to *sarvānumānāṁ pramāṇābhāsatvam*, then it seems a disingenuous representation of that position, because Buddhists do in fact maintain that inference is a genuine (conventional) means of valid knowledge.

have?”⁵²² [To this we would answer: Why] none [in fact], aside from [exactly] the one hoped for. [That is to say] it [this objection] might be as follows: Even if, on occasion, the cognition (*pratyaya*) of [a conch shell’s] mother-of-pearl (*śuktikā*) which counteracts a cognition of silver is [itself] counteracted by [yet] another cognition (*pratyaya*)⁵²³ and so does not exist [any longer] (*asattva*),⁵²⁴ it’s certainly not the case that the cognition of silver in cases of sleep, illusion, and so on is [therefore] true. In the same way (*yathā...tadvat*), even if the inference about [cognitions’] not having support (*nirālambanānumāna*) does not exist [any longer] (*asattva*),⁵²⁵ nevertheless, the thought of [cognitions’] having support (*sālambana-jñāna*) [which is] counteracted by that [inference] cannot be true.⁵²⁶

+144,6

[To this we would answer:] What does one mean by this? If it is that, whether without a means of valid knowledge [at all] or (*vā*) with a merely seeming means of knowledge, other cognitions which are utterly unapprehended can be established as definitely false, that’s incorrect, because [first of all] in the [complete] absence of a means of valid knowledge, it’s not possible to secure the establishment (*vyavasthāsiddhi*) of an object of knowledge.

144,9

[And second] if that [falsity of other cognitions] could be established by a seeming means of knowledge (*pramāṇābhāṣena tatsiddhau*), then one could also secure the establishment (*vyavasthāsiddhi*) of external objects on the basis of that very same [type of] thing, since it is precisely that which conditions (*nimitta*) the securing of that establishment that [we say] is a non-erroneous means of valid knowledge.⁵²⁷ For indeed, being a means of valid knowledge and non-erroneous (*pramāṇābhṛāntatva*) does not have two prongs (*viṣāṇe*), but rather, by whichever thing some subject (*padārtha*) is established as being how it is, that very thing is a non-erroneous means of valid knowledge, just like self-awareness on

⁵²² This phrase “*kārthasiddhiḥ*” can also be read as a pun, meaning additionally: “What aim does this accomplish [for you]?”

⁵²³ Cp. below at NBhū 144,13. To put it succinctly, an example sequence is: “Oh, some silver! Oh no, wait, it’s mother-of-pearl... Oh no, wait, there’s actually no real object here at all, I was just dreaming.”

⁵²⁴ After being counteracted, the previous cognition, once it has ceased to perpetuate itself as representing the true state of things, ceases to exist as such (*asattva*, as with P). That is, although it is tempting to do so, do not read *asatyatva* with V.

⁵²⁵ In this case, it would cease to exist once it has itself been proven to be ultimately unreal in the Buddhist’s view.

⁵²⁶ Only the V manuscript reads one *tva* for the latter of the two cases here. Although it is tempting to read this *tva* in both cases (i.e., *nirālambanatvānumāna* and *sālambanatvajñāna*), it is more likely that we are thereby just attempting to make sense of the difficult grammar and argument by means of an unnecessary emendation. To explain: Without *tva*, there is a risk of reading these compounds as *karmadhārayas* (i.e., “an inference that is [itself] without object support” — which was indeed just discussed! — and “a cognition that [itself] has object support”), but if we are careful, it is also possible to read them as *tatpuruṣas* (i.e., “an inference of [X as] something without object support”, etc.), as we also see in such constructions as *apradeśavṛttyabhimāna* (“a false impression of [X as] not residing partially”) and *grhītābhimāna* (“a false impression of [X as] having been apprehended”, on which latter case, see footnote 493 above). The addition of *tva* constrains the reading to only the *tatpuruṣa* possibility, making the argument easier to understand, but it is unnecessary. Similarly, insofar as the *tva* had originally been present, it would not likely have stood out to anyone as being in need of removal.

⁵²⁷ The terse phrasing here is rather difficult. I translate based primarily on what follows.

your [own] view [is just one thing].⁵²⁸ And neither is it true that the falseness of a cognition of silver can be [properly] established by an erroneous cognition of mother-of-pearl. Rather, it is only by non-erroneous cognition subsequent to them that the irreality of both the cognitions of silver and of mother-of-pearl is established.

144,14

Alternatively (*yad vā*), [one can say that] the cognition of mother-of-pearl is erroneous only with respect to [truly] having mother-of-pearl as its object, whereas (*tu*) it is in fact non-erroneous (*a**bhrānta***) by virtue of its having for its object the cognition of silver qualified as false, because it does not disagree [with reality] in that respect. And if something non-disagreeing can [also] be erroneous [in this way], then self-awareness [despite being non-disagreeing] could also be erroneous, and then one would [simply] stipulate as a rule (*pāribhāṣika*) that cognitions are [by definition always] erroneous.⁵²⁹

+144,16

If (*atha*) by the example case of e.g. a cognition of silver there is brought about total disestablishment of all means and objects of valid knowledge, [then] in that case (*tathā sati*) one arrives at the Cārvāka view [of Jayarāśi] (*suragurumatānupraveśah*).⁵³⁰ And then, deliberation (*vicāra*) on e.g. future lives as well as deliberation on means of valid knowledge [in particular inferences] based on those [other lives and so on] would be completely impossible.

144,20

And yet, not even (*na ca...api*) even the disestablishment of other cognitions can be secured if they are not apprehended (*apratīta*). Meanwhile (*tu*), you who rely on reflexive awareness alone cannot [even] apprehend (*paśyati*) another cognition. And [mind you] no one is stopping you if you are arguing (*sādhayantam*) for reflexive awareness's own (*ātmanah*) lack of support or erroneousness, but the word "all" [in your inference] (*sarvaśabda*) is meaningless. Alternatively, if [you do accept that] there is apprehension of other cognitions, then it [the inference] is said [by us] to be inconclusive.⁵³¹

§

object support is simply that which is (actually) apprehended.

+144,23

Alternatively, this inferential reason ["because they are cognitions"] is [unsatisfactory because it is] contradicted. To explain: [One can also argue that] all cognitions do have support, because they are cognitions, like the cognitions that have as their support other

⁵²⁸ On the "two prongs" representing supposedly multiple components of valid knowledge, cp. also later in NBhū: "*na hi pramāṇasya viśāñe stah, kiṁ tu yenārtha 'vagamyate, tad eva pramāṇam iti*" (224,13–14).

⁵²⁹ That is to say, if even self-awareness is in error about itself, and if all cognitions are such for the Buddhists, then for them, being erroneous should be part of the technical understanding of what it is to be a cognition.

⁵³⁰ Franco (1987a) suggests that when Bhāsarvajña uses various terms for Cārvāka thought, including *suragurumata* (NBhū 218,16), "...none of these appellations refers to Jayarāśi; they all refer to the materialistic *Lokāyata*" (46n3). However, by his speaking here of the disestablishment (*avyavasthā*, like *upaplava*) of *all* means (*and* objects) of valid knowledge, Bhāsarvajña does seem to particularly have in mind Jayarāśi the skeptic and not simply Lokāyata materialism, the latter of which does traditionally endorse perception (alone) as a means of valid knowledge.

⁵³¹ Again, whatever cognitions are apprehended by other cognitions would serve as a counterexample to the inference which supposedly has all cognitions as its locus.

cognitions.⁵³² If one says that the example case [in this counter-inference] is unestablished as a property possessor (*dharmaśiddha*),⁵³³ [we would answer:] so is it now [claimed to be] the case that (*tat kim idānīm*) neither [one's own] cognitions in e.g. dreams nor other people's cognitions can be apprehended? And if they are not apprehended, then how could there be [shared] practical behavior (*vyavahāra*) by means of them?⁵³⁴

+144,26 [One might say:] Who says that "They [dream cognitions etc.] are not apprehended"? Rather, what we say is that they do not become the support [of any cognition]. [To which we would reply:] "They are apprehended, and yet (*ca*) they do not become the support [of any cognition]" — that's quite the statement (*suvyāhrtam*). After all, the support is not something totally different from what is apprehended, because [otherwise] there would be the result that also self-awareness would then be [truly] without support.

+144,29 [One might object:] That thing which appears as itself (*svarūpera*) in a given experience is the support of that [experience], not merely that which is apprehended, because [otherwise] even something being remembered would end up being an object support. If you say this, [we would answer:] No [this concern is not warranted], since one may characterize [e.g., memory] in multiple ways, such as being contrary to the object support, not contrary [to it], doubtful [as to whether it is contrary or not contrary to it], and so on. That's why (*yataḥ*) "that which is known", "support", "object", "thing", and "that which appears in cognition" are all synonyms (*iti paryāyāḥ*).⁵³⁵ Moreover, that which appears in a non-disagreeing cognition does [by virtue of that factor alone] appear as none other than itself. Thus, how could it be that other cognitions cannot be the support?⁵³⁶

145,4 Another objection: How, by means of a form (*ākāra*) common to other cognitions, can one apprehend the proper form (*svarūpa*) of a [given] cognition? For indeed, they [the other cognitions] have no common form [after all], and the un-shared form that they [each do] have, being remote, does not appear at all. Hence, it [i.e., a given cognition] is not the object support [for another cognition]. [Answer:] That's incorrect, [on the one hand] because the common form does also exist in a real way (*vastava*), and [on the other hand] because an inference has that [common form, i.e., universal] for an object (*tadvिषयत्वाद*

⁵³² Cp. [~ PVA 361,25–26 ↗]: *yathā "nirālambanāḥ sarvapratyayāḥ pratyayatvāt svapnapratyayavat"* iti, *tathā sālambanāḥ sarvapratyayāḥ svapnabādhakapratyayavad eva* / (punctuation mine). The example case here is notably different. That is, whereas the PVA speaks of a (waking) cognition that counteracts a dream cognition, Bhāsarvajña generalizes to the case of any cognition that is about another cognition.

⁵³³ That is, the example, "cognitions that have as their support other cognitions" (*pratyayāntarālambanapratyayas*), is not accepted by the Buddhist opponent as a legitimate possessor of the (target) property in question (*dharmin*), namely, "having support" (*sālambanatva*), because it is not accepted to exist whatsoever. This technical term *dharmaśiddha* perhaps most often applies to a *pakṣa* so as to render an inferential reason faulty (*hetvābhāsa*), as in the handbooks like Nyāyabindu or Nyāyakośa, or in ŚV Anumānapariccheda 116. In this case, however, it clearly applies to the *drṣṭānta*.

⁵³⁴ I.e., practical behavior that presupposes them.

⁵³⁵ That is, according to Bhāsarvajña, none of these words for the content of experience is meant to be so loaded as to already pass judgment on the reality of a given object. Rather, there must be a separate judgment at the level of the cognitive event itself, using other means, at a later time, to decide whether to corroborate the experience as having had proper correspondence to reality or not.

⁵³⁶ I.e., with the bar for being an object support having been lowered to such an extent, it seems preposterous to still assert that cognitions cannot fulfill even this basic role of being some kind of object of thought.

anumānasya), as we shall explain.⁵³⁷

145,8

And if [one should claim that] it is a form (*rūpa*) unconnected (*asamsargin*) with other cognitions and in fact unreal that appears, [and] it's only for this [form] that a lack of object support is being established, then, like an inference establishing the sharpness of a hare's horn, this would be utterly meaningless. For indeed, as with a hare's horn, one cannot apprehend, even indirectly (*pāramparyenāpi*), a connection with other cognitions that are completely unapprehended and not truly existent (*paramārthāsad*).

+145,11

And as for (*api*) the example of the jewel, it is not really all that proper here, since the jewel's proper form (*svarūpa*), which most certainly does really exist, is apprehended by the same knowing agent (*pramātr*) at a time after the action [of moving toward the jewel], [but] not so the proper form of other cognitions. Alternatively, if it is, then how does the cognition thereof not have object support?

§

Negating an unobserved entity is not like inferring specific properties of a known one.

145,15

Also the following is taught [by opponents] (*yad apy uktam*)⁵³⁸: Once it is established, by none other than everyday cognition, that there is a difference between e.g. waking and sleep cognitions, then, on that basis, there can to begin with be practical talk about proving a target property (*sādhyasādhanavyavahāra*)⁵³⁹. [But] later, if by a reflective person there is noticed no [inferential] reason for [affirming] the separation between them (*na kimcid atra vibhāgakāraṇam*)⁵⁴⁰ and thereby (iti) one establishes [their] non-difference, then in that case (*tathā sati*), what problem is this for an opponent [like us]?

+145,17

For indeed, if there is a problem in this way, then there would be a problem also for establishing the epistemic instrumentality of the Vedas. To explain: So long as the Vedas are not apprehended to be distinct (*prthaggrahaṇam*) from everyday utterances which are

⁵³⁷ Cp. NBhū 215,21ff. and 217,16ff., where the idea is explored that the *sādhya*, as the *viṣaya* of an *anumāna*, is a *sāmānya*. I am not sure, however, that it is in fact these passages in particular that Bhāsarvajña intends with his use of the future tense here.

⁵³⁸ The relative pronoun *yad* here is picked up by *tad etad* below at 146,2. The material “inside” this overarching relative clause closely follows PVA 360,21–361,3. Following the artificial text divisions of the Pramāṇa NLP corpus used for Vātāyana, this corresponds to 2 NBhū documents interrelating with 3 PVA documents, starting with NBhū 145,15–21 ≡ PVA 360,21–24 ↳ and continuing through NBhū 145,22–146,1 ≡ PVA 360,32–361,3 ↳. Details can be browsed in the online interface. See also footnote 550 below on the continued quoting and paraphrasing of PVA 361,3–23.

⁵³⁹ This phrase *sādhyasādhana*, restored from V and from PVA, is common in the latter, where it seems to be used not as a *dvandva* but rather as a genitive *tatpuruṣa*. More specifically, it is used either as a noun describing what inferential reasons are capable of or as a direct adjective qualifier expressing the same. For respective examples, cp. “*na ca pakṣadharmpasāṁhāram antareṇa hetuḥ samarthaḥ sādhyasādhanāya /*” (PVA 483,8) and “*na hetur eva kaścit sādhyasādhanāḥ syāt /*” (PVA 386,12).

⁵⁴⁰ See ≡ PVA 360,22 ↳. The phrasing in the PVA is basically the same, but one should correct its *°karaṇam* to *°kāraṇam*. The PVA's *parāmr̥śato* could also be corrected to instrumental, or else it might already be fine as a genitive absolute with the sense of “despite” (i.e., *anādare ṣaṣṭhī*). Cp. also PVA 361,2: “*yadi parāmr̥śyamāne na bhede pramāṇam kim apy asti*” (with corrected palatal *vmr̥ś* instead of retroflex *vmr̥ṣ*).

not means of valid knowledge, there can be no establishment of the nature of the property-possessor [in question] (*dharmin*).⁵⁴¹ And if that [nature of the Vedas] is not established, then neither can their epistemic instrumentality be established,⁵⁴² and so an inference [to this effect] would be fruitless. And yet (*ca*), they [the Vedas] cannot be differentiated on the basis of a difference in the sequence (*ānupūrvī*) of intonation and phonemes (*svaravarṇa*), because also for those [texts] other than those [Vedas] there can mutually be [established] difference in that way.⁵⁴³

145,22

Now [one might suggest]: Let's say there is (*asti tāvat*) a given text (*ayaṁ prabandhaḥ*) about which one is wondering (...*iti vicāryamāṇah*) whether it is Vedic or not. If it turns out to be (*bhavisyati*) a means of valid knowledge, then [let us say that] it is certainly Vedic. Otherwise then [let us say that] we have no use for it, and so we'll get rid of it (*pari tyakṣyāmaḥ*). [Answer:] It's the same [problem] also in this case. [To explain:] Let's say (*tāvat*) there is observed a [given waking] cognition.⁵⁴⁴ [Then] there are two possibilities (*kalpane*): Compared to this [waking cognition] (*asmāt*), a dream cognition (*svapnaprasiddhi*)⁵⁴⁵ is ei-

⁵⁴¹ For an excellent discussion of this response of Prajñākaragupta to Kumārila, see Kobayashi (2011). In short, if one wishes to prove that the Vedas have epistemic instrumentality (*prāmāṇya*), then one must first establish that a given text — as the proposed property possessor of the inference — is even Vedic at all, and for that, one must have some perceptible criterion for what constitutes “Vedicity”. In other words, the nature of the bare locus (*pakṣasvarūpa*) must itself be clarified before proceeding to talk about it as a possessor of the target property in question (*dharmaśvarūpa*).

⁵⁴² Nor can any other property, for that matter. This sentence can also be read as a general principle: No attribute (whether epistemic instrumentality or anything else) can be established for something of which the very nature is unestablished.

⁵⁴³ Alternatively, *svara* and *varṇa* might mean something closer to vowels and consonants, whose empirically observed distinct patterns of permitted sequences amount to phonology. In either case, read in this general way, the argument seems a bit weak. Even if one can make such a distinction among other language types, it is clearly not just the *mere fact* of difference but rather the *specific details* of difference that matter, such that the possibility of differentiating other language types from each other in this way should not preclude one from using such a criterion to distinguish the Vedas from non-Vedic Sanskrit. For example, Italian and French can be distinguished from each other on the basis of certain features, and modern English and Old English can unproblematically be distinguished on the basis of other specific features. It would seem, then, that *svaravarṇānupūrvī* is meant as something very specific intended to be used for distinguishing only Vedic from non-Vedic Sanskrit — except that it is already used to distinguish other language types from each other and therefore is unreliable as such a criterion. The PVA text (p. 360) has an ungrammatical extra “*na*” in the ablative clause that does not help matters: “*na tv anyata eva svaravarṇānupūrvīvišeśād vedasya prabandhabhedasiddhiḥ / nānyeśām api parasparasya tathā bhedasiddheḥ /*” I suspect that I haven't fully understood the argument yet.

⁵⁴⁴ Kobayashi (2011) implies with his punctuation of the PVA material “*saṁānam idam atrāpi pratyayas tāvad īkṣyate /*” (436), against Sankrtayana (1953, 360,31), that these two short sentences in fact constitute another anuṣṭubh half-verse. The NBhū mss., however, have no evidence for the *idam*, so I do not conjecture it here, since the (near-)metricality may in fact be coincidental, and in any case, Bhāsarvajña's prose representation is unproblematic.

⁵⁴⁵ The somewhat unusual meaning of “be known” for *pravśidh* finds support in the PDhS discussion of *ātman* as *prasādhaka*. See NyKand: “*śabdādiśu viṣayeśu yā prasiddhir jīvānam tatrāpi prasādhako jñātānumīyate /*” (1991, 177,8–9). Alternatively, one could read *prasiddhi* as referring to “what is well-known” about dreams, namely, that their objects can be retroactively identified as unreal after waking; cp. NBhū 150,11: “*svapnādibuddhīnām viṣayābhāvāḥ, sarvalokasiddhatvāt...*” This seems a bit too awkward here, though.

ther different (*bhinna*) or not (*no vā*)⁵⁴⁶. / What will turn out to be the case (*yathā bhaviṣyati*),⁵⁴⁷ [only] later (*param*) we will discover (*tathā drakṣyāmaḥ*). It's also so [in the case of the Vedas] (*ity api*). // [That is to say] if, upon later consideration, either the dream cognition or the other [waking cognition] may be [found to be] distinct from the other, then we will apprehend difference [between the two]. Or (*atha*), it might be that (*iti*) [upon reflection] there is not any grounds for [maintaining] difference [between the two], in which case (*tadā*) we will know (*prativipad*) that there was no difference. What then is the contradiction here?

+146,2 [To all this, we would respond:] This is just ignorant slackjawing (*andhavijrmbhitam*). Those who advocate the epistemic instrumentality of the Vedas, it should be said (*khalu*), first of all apprehend (*vpaś*) the everyday [external] world, and they can apprehend (*vjñā*) a cognition thereof.⁵⁴⁸ On that basis [then], for that [particular] property-possessor (*dharmin*) called the Vedas which is well known to everyday people in its general aspect (*sāmānyena*), it is [also] appropriate to investigate [additional] particular aspects (*viśeṣa*) like e.g. epistemic instrumentality. You, however, cannot apprehend anything at all besides self-awareness.

+146,5 Moreover, if there is apprehension of the locus and so on by means of a fallacious means of knowledge, then how would [such] an inferential reason with false components be a means of knowledge?⁵⁴⁹ [Here one might object:] But surely, in the [Pramāṇavārtika-] Alāmkāra, Prajñākaragupta himself has raised a concern about this [problem] and countered it. Here's what he says:⁵⁵⁰

(-146,7)

+146,8 If one says that a prior [cognition which was an] apprehender of difference is not a means of valid knowledge, then so be it. What's the problem? [The problem is that] there would [then] be no dividing up (*pravibhāga*) into locus and so on.⁵⁵¹ [To this we would answer:] Granting that there would not be [any such dividing up] (*mā bhūt*), what is now the problem for us [Buddhists as a result of that]? [Namely, the objection continues,] none other than

⁵⁴⁶ In asking “whether or not dream cognition is different than waking cognition”, the underlying question is “whether dream cognition lacks object support or not” (*nirālambanam no vā*). In this way, this question is basically parallel with the above one about Vedic-ness (“*ayaṁ vedah, uta na?*”), but it should also be noted that the emphasis here on non-difference itself is significant in that it plays into the argumentation for non-dualism.

⁵⁴⁷ PVA reads *yā vā* “Which of the two...”, with the feminine pronoun for *prasiddhi*.

⁵⁴⁸ That is, for them, cognition can not only touch the real world, but also, one cognition can apprehend another cognition.

⁵⁴⁹ That is, if *pakṣadharmaṭva* fails because the *pakṣa* itself cannot be apprehended — due to its being a cognition itself — then the Buddhist’s triple-condition for the inferential reason (*trairūpya*) cannot be satisfied, and the *hetu* will not be valid.

⁵⁵⁰ Cp. footnote 538 above on where this picks up from quoting and paraphrasing PVA 360,21–361,3. Again, this *yad* here can be seen as beginning a relative clause, again answered by a “*tad etad*”, this time at NBhū 147,6, which “contains” all of the PVA material being judged, namely, PVA 361,3–23. In terms of the text divisions of the Pramāṇa NLP corpus, this material corresponds to 4 NBhū documents interrelating with 5 PVA documents, starting with NBhū 146,8 = PVA 361,3–5 ↪ and continuing through NBhū 147,3–5 ~ PVA 361,21–23 ↪. Details can be browsed in the online interface.

⁵⁵¹ The *ādi* here includes the major components of an inference: *sapakṣa*, *vipakṣa*, and perhaps also the *hetu* and *sādhyadharma*.

the following: That that [later inferential cognition] which [in turn supposedly] establishes the non-difference is [thereby also] not a means of valid knowledge.⁵⁵² [To this we would answer:] If that's the case, then [also] the [initial] cognition (*pratipatti*) of a property-possessor characterized [here] as the Vedas and having properties in common (*sādhāraṇa dharmin*) with both means of valid knowledge and non-means thereof⁵⁵³ will [itself] certainly not be a means of valid knowledge, since at a later time it [the initial doubtful cognition] ceases [to be valid] (*nivartana*) as a result of the [later] establishment of [the Vedas'] epistemic instrumentality. So, because that [initial doubtful cognition] which establishes the property-possessor [for the sake of inference] is not a means of valid knowledge, then so too would that [inferential cognition] which establishes the epistemic instrumentality [of the Vedas] by means of that [initial doubtful cognition] not be a means of valid knowledge, and therefore, one cannot establish the epistemic instrumentality of the Vedas. As a result of this (*tataḥ*), all practical talk about proving properties to be proved would fall apart.⁵⁵⁴

146,14

One might object [against this Buddhist suggestion] that (*atha...ti*) even if one [initially] apprehends the property-possessor as having properties in common (*sādhāraṇa*), [nevertheless] that [cognition] which does the apprehending does not fail to be a means of valid knowledge, because it is epistemic instrumentality as something additional (*adhika*) that is [later] established about that very same thing [i.e., the property-possessor]. [To this we would answer that] that's also wrong, for the following reason: If [you think that] being a means of valid knowledge [just] is the nature of that property-possessor [i.e., the Vedas] itself, then how, despite the [initial] apprehension of that [property-possessor] by means of [the initial doubtful cognition which constitutes] an invalidation of that [property of being a means of knowledge], could it [i.e., the later cognition of the Vedas as a valid means of knowledge] be valid knowledge?" Indeed, Vedic speech is [claimed to be] by nature (*°svarūpa*) a means of valid knowledge. [But] if there is [initial] apprehension of that [Vedic speech] as contrary to that [nature of being a means of valid knowledge], then, when there is undermining (*unmūlana*) of what is contrary in that way [i.e., of the initial cognition that is ambivalent about whether Vedic speech is a means of knowledge] by another [later cognition] (*apareṇa*), how would it [Vedic speech] not fail to be a means of valid knowledge?⁵⁵⁵

(–146,18)

Now [one might object]: This is not a refutation [of the epistemic instrumentality of

⁵⁵² That is, first, a prior cognition establishes for the sake of argument (be it only by way of an assumption on the basis of everyday experience) about waking cognitions that they are different from dream cognitions in the sense that they have object support. After that, an inference comes to the opposite conclusion. Since the initial foundation turned out to be false, is the conclusion also necessarily false?

⁵⁵³ That is, the initial awareness establishes the property-possessor (*dharmaśādhanā*) as a locus of doubt and thereby prompts further investigation of it for the sake of ruling in favor of one answer or another.

⁵⁵⁴ That is, the Buddhist points out that the initial focusing upon an inferential property-possessor, i.e., the locus that may or may not have the target property in question, always lacks epistemic instrumentality, whether the topic is the Vedas or anything else, such that it should not be raised as a problem only in this particular case of the Buddhist's argument concerning cognitions' lack of object support. The problem is similar to Meno's Paradox in the Socratic dialogues, which basically states that, insofar as you (already) "know" what you're looking for, inquiry is unnecessary. But of course, knowing can have many different aspects.

⁵⁵⁵ Bhāsarvajña leaves out the following point, also about the status of the *sādhyadharma* as an additional property (*adhika*), which occurs in the PVA before the next argument is made about the regress prob-

the Vedas], because we assume [e.g. epistemic instrumentality to be] a distinct property.⁵⁵⁶ [Answer:] No [that argument doesn't work], because there would end up being an infinite regress. To explain: If the property is distinct, [then] there would have to be an additional relation with it (*tena yogah parah*). And with that again a relation, and with that [etc.], and so there would be an endless overflow of properties.⁵⁵⁷ If the connectedness is accepted to be the nature of the two, then the epistemic instrumentality [still] follows (*prāpta*).⁵⁵⁸ [So] what is problematic for us? Though a thing may [initially] be apprehended by way of difference due to the occurrence of superimposition, how is the apprehension of non-difference, which results from thinking carefully [about the same], not valid knowledge?⁵⁵⁹

147,3

Neither (*api*) should one raise the concern that, for one who apprehends non-difference (*abhedapratipattr*), the means of proof does not function [as it should] by way of the division of the locus and so on, because [it is] in anticipation of (^apekṣayā) the cognitions of others [that] this mere restatement (*anuvādamātra*) is, even by itself, [just] by repeating something previous (*pūrvābhyaśa*)⁵⁶⁰, a [legitimate] formulation of a means [of inference] (*sādhanaprayoga*). In this way, it is unobjectionable that another is made to understand [through inference-for-another] that one also [previously] experienced such a thought [through inference-for-oneself].⁵⁶¹

147,6

[Answer:] This we see as him [Prajñākaragupta] crying out confusedly, cut to the quick with an arrow of envy.⁵⁶² To explain: Firstly, provided that we establish the general and particular characters of the Vedas as distinct properties, then in that case,⁵⁶³ there's definitely

lem: “*na hi svarūpeṇaiva kasyacid ādhikyam | agrhīte tadādhikyavyavahāra iti cet | agrahaṇe kathām pramāṇatā | kasyacid rūpasya grahāṇād iti cet | na | bhedābhāvāt |*” (1953, 361,15–16). Cp. the gap between NBhū 146,15–19 = PVA 361,12–15 ↳ and NBhū 146,21 = PVA 361,17 ↳.

⁵⁵⁶ That is, as opposed to a proper nature (*svarūpa*) of a thing.

⁵⁵⁷ Note that, according to Vaiśeṣika, relations (*sambandhas*) are properties to the very same extent that qualities (*guṇas*) are.

⁵⁵⁸ That is, if one adopts the Nyāya concept of *svarūpasambandha* to avoid this regress problem, the view still reduces to that of the Buddhist who supposes that the property (*dharma*) is simply the nature of the property possessor (*dharmin*). Meanwhile, however, the exact relation between a thing's “nature” and its properties is not a simple matter. On the distinction between property-*svabhāva* and nature-*svabhāva*, see e.g. Dunne (2004, 153ff.).

⁵⁵⁹ The case relations in this verse are not immediately clear. I take *samāropasya bhāvataḥ* as a clause unto itself justifying why the apprehension-as-different occurs, *grhītasya* (not in apposition with *samāropasya*) as the logical object of *parāmarśāt*, and the latter in turn as the cause of *pratipattiḥ*.

⁵⁶⁰ E's negative reading *apūrvābhyaśena* with *ca*, based on a sandhi-ambiguous *vā* in P, is to be rejected.

⁵⁶¹ As already noted above, see ~ PVA 361,21–23 ↳.

That is, even though a fact may already (*pūrva*) have occurred to a speaker, the similar thought still needs to be induced in the mind of the listener through inference-for-another. In this way, although the inference is in a sense repetitive for the speaker, it is not repetitive for the listener, and the latter fact is what determines the inference's epistemic instrumentality.

⁵⁶² This quip is taken basically verbatim from ≡ HB 18,6–7 ↳, minus the final part in the latter which translates to “so we can disregard him” (ity *upekṣām arhati*). Take *viklavam* as adverbial with the verb *vivkruś*, for which, cp. Steinkellner (1967) “schreit [...] verwirrt auf” (II,51–2) corresponding to the Tibetan “*chal zhing 'khang bar zad pa*” (I,58,3).

⁵⁶³ As far as I can tell, partly by triangulating with other similar intra-work references (“*dharma dharminoś*

no room for your view.

147,9

And if one objects that those two [properties] are in fact results of (^o*nibandhana*) an exclusion of what is not them, then even so [we would answer], [it is, generally speaking, only] as long as a property-possessor is [initially] apprehended and ascertained by means of a common nature (*sadrśātmanā*), [that] it is possible for an inference to function so as to rule out the inappropriate attribution (*samāropa*) [of a wrong property] resulting from not apprehending other [distinguishing] properties [directly].⁵⁶⁴ But so long as the property-possessors, being [here] characterized as other cognitions, are themselves never the objects of cognitions (*drṣṭigocarāḥ*), then on what basis would the inference function? For indeed, not even a well-trained person can create a painting on [a canvas of empty] space. For indeed, [only] if the property-possessors, [here] characterized as other cognitions, are apprehended as they are (*svarūpeṇa*),⁵⁶⁵ could one then (*tadā*) also understand the process by which (...*ity eṣāpi prakriyā saṃbhāvyeta*), by means of the [initial] ascertainment (*niścaya*) about their being cognitions which will have arisen because of that apprehension,⁵⁶⁶ an inference functions with the aim of ruling out the inappropriate attribution [of the wrong property, namely, having support] which results from not apprehending the [cognition's] lack of object support.⁵⁶⁷ On the other hand (*ca*), [this process is] not [understandable] if the property-possessors are not apprehended, like *piśācas*.

147,16

And yet, for you [Buddhists], there does not even exist apprehension of other cognitions over and above self-awareness, as was [already] said. On the other hand, when you say this “Though a thing may [initially] be apprehended by way of difference...” and so on,⁵⁶⁸ this is the talk of someone who has forgotten the topic (*vismṛtaprakaraṇa*), since what's currently being discussed (*prakrānta*) is the [supposed] means for establishing the lack of object support for all cognitions, not non-dualism. [The Buddhist might object:] The non-difference accepted [by us] for all cognitions is in particular their non-distinction (*avīśeṣa*) by way of lacking object supported, not non-dualism. [To which we would answer:] Even so, if there is no apprehension of other cognitions, then inference [simply] cannot function. On the other hand, if they are apprehended, then what is said is that the inferential reason is inconclusive.⁵⁶⁹

cānyatvam vakṣyāmas”, NBhū 236; “*dharma dharminoś cārthāntaratasya prasādhitatvāt*”, 289), the place where Bhāsarvajña takes himself to have proven the separateness of the property and the property possessor is at NBhū 241,17ff., where he argues that inference becomes meaningless (*anartha*) otherwise. However, I am not sure.

⁵⁶⁴ That is, there is some common nature among the inferential property-possessor (*dharmin*), its similar cases (*sapakṣa*), and its dissimilar cases (*vipakṣa*) which motivates the inference in the first place. In this way, doubt (*saṃśaya*) and its resolution are central to inference.

⁵⁶⁵ Cp. the claim, above at 117,12–14, that insofar as cognition is apprehended by unenlightened people as divided into apprehending and apprehended forms, it is thereby not known in its true non-dual form, and in that sense can be said to be empty of the superimposed duality by which it is conceptualized.

⁵⁶⁶ I.e., with *pakṣadharmatā* first secured.

⁵⁶⁷ I.e., error is counteracted when the inferential reason establishes its target property in the property-possessor in question.

⁵⁶⁸ See above at 146,21ff. where PVA k. 3.698 (1953, 361) was quoted.

⁵⁶⁹ Cp. footnote 513 above for this charge of inconclusiveness upon having found a counterexample.

147,21 Now [one might object]: What is established in this manner (*krama*) is the ruling out of inappropriate attribution of difference only for self-awareness. [To this we would answer:] No [this cannot be right], for the reason already considered previously. [But to go] further [into it] (*api ca*): Is the difference ruled out by the very same thing [i.e. cognition] by which it is superimposed, or is it [ruled out] by another cognition? It's [first of all] not correct that it should be by the very same [cognition], since it is contradictory for the forms of the superimposing and the ruling out forms to be one and the same.

+147,25 If instead (*atha*) it is [ruled out] by another cognition, [then to that we would answer] who else besides a Buddhist could say something like "There exists another cognition, and yet (*ca*) there is no difference"?⁵⁷⁰ Also, it's certainly incorrect to say that "in anticipation of the cognitions of others, this mere restatement is even by itself, by way of repeating something previous (*pūrvābhyaśa*)..." and so on,⁵⁷¹ because it is contrary to [your] non-difference. Moreover, neither another's unapprehended cognition (*apratipannah parapratyayaḥ*) nor (*ca*) a repetition of something prior (*pūrvābhyaśa*) is fit to be spoken of as an inferential reason.

+147,29 If you say [as an objection] that, like in the case of [floating] hairs, etc., something can be apprehended in the total absence of support, [we would answer] no [this comparison is inappropriate], because a cognition of [floating] hairs, etc. [i.e., an illusion] is not a means of valid knowledge. [And] for this very reason, a Buddhist who considers as a means of valid knowledge the two verses beginning with "It [awareness] being [in reality] without forms of known and knowing..." would have to accept none other than non-dualism. Otherwise, there would be a contradiction with those [two verses]. [And furthermore] as a result of that same cognition without object support, so too could there [equally] be an establishment of external objects, just like there is of other cognitions. Thus, alas, it's a terrible situation the Buddhist has stumbled into.

§

Other interpretations of "without" (nir-) do not help the argument.

148,4 Furthermore, if having "no" (*nir°*) support is understood to be having oneself for support, then the example case is devoid of the target property, since it has not been established that e.g. dream cognitions also have themselves for support. [This is so] because it was stated [earlier] that there is no means of valid knowledge for [the idea of] self-awareness, and

⁵⁷⁰ Despite its cleverness, E's (slightly unmetrical) verse presentation of this objection and response is incorrect. The text actually transmitted in P (V is unfortunately missing here) should instead be understood as an interpolated comment containing a variant reading. After clean-up, it reads (with the interpolated comment in angle brackets): "*iti ka evam bhadantād anyo* ⟨ *vā, pāṭho vā: ko 'nyo bhadantād* ⟩ *vaktum arhati*". In this interpretation, the outer wording, "*iti ka evam bhadantād anyo vaktum arhati*", is edited here as Bhāsarvajñā's own, while the second option, "*iti ko 'nyo bhadantād vaktum arhati*", which is found in Uddyotakara (see \cong NV 39,16 →) and Vācaspatimiśra (NVT 628,4–5), should be understood to have been at some point noted by a scribe for the sake of comparison and then interpolated into the text at some later point in the transmission history of P. Meanwhile, the preceding sentence demonstrating the contradiction, "*pratyayāntaram asti, na ca bhedah*", is simply restored to the manuscript reading.

⁵⁷¹ Cp. footnote 561 above.

[also] because the apprehension of other things [besides the cognition itself] has [in fact] been proved.

148,7 [Or] if what is meant [by cognitions' having no support] is that they have no support whatsoever, then, like a pot etc., also cognition would be unestablished. And then, given the contradiction for your view (*svadr̄ṣṭi virodhe*), the world [as we know it] would be at an end [for you] (*astamgata*).⁵⁷²

+148,8 [Or] if what is meant [by cognitions' having no support] is that they don't have for support (°*anālambana*) external objects, that's incorrect, since those who argue in favor of the error theory of the [apprehended object that is] contrary [to reality] (*viparīta khyātim samarthayatām*)⁵⁷³ teach that memory, too, has for its [real] support that which is remembered.⁵⁷⁴

+148,10 [Or if what is meant is that] they [all cognitions] do not have for support (°*anālambana*) the object as it appears (*yathāpratibhātartha*), as in e.g. dream cognitions, then in that case, even a cognition appearing with [the form of] awareness [itself] (*bodhāva bhāsin*) would end up not having that [awareness] for support. And because of that, like external objects, awareness [itself] also would not be established, and so the whole world would end up blind.⁵⁷⁵ For indeed, if nothing can be established as real, then neither can the distortion consisting in error (*bhrānty upap lava*) be established [as real], because it would end up being a mere convention (*paribhāṣā*).

§

Negation can only apply to specific properties of previously established objects.

+148,13 Now [you might say]: Something apprehended as external, like e.g. [floating] hair, can be established as unreal (*asattva siddhiḥ*) through our not observing obtainment of the object. [And] once that mental appearance is [thereby] established as lacking object support, then all cognitions, since they are characterized (*upalakṣaṇa*) by the same nature as those [erroneous cognitions], can [also] be established as lacking object support. And meanwhile (*punar*), there's not anything [i.e., any other cognition] that counteracts (*bādhaka*) them [all cognitions] as having themselves for support. [To this we would answer:] That's also incorrect, because it is not established that they [all cognitions] are characterized by the same nature [as erroneous cognitions]. For if there is no obtaining (*a prāpti*) of objects in any scenario, then indeed, it is established that they have the same nature, but if an object is [in fact] obtained in some cases, then how is it [possible to say] that they have the same nature?

+148,18 Now [consider that one says]: There is in fact never [any] obtaining of an object. [To this

⁵⁷² Bhāsarvajña has likely borrowed this hyperbolic-sounding phrase *astamgatam jagat syāt* from elsewhere in PVin; cp. footnote 232 above.

⁵⁷³ The root *samvārth* is *ubhayapadīn*, and the present active participle here is a subjective genitive, providing the agent for the verbal noun *pratipādāna* ("teaching") in addition to governing the accusative *khyātim*.

⁵⁷⁴ Namely, the support of memory is a past, real, external object.

⁵⁷⁵ The small turn of phrase "āyātam āndhyam aśeṣasya jagataḥ" is likely another stylistic borrowing from Dharmakīrti; see = PVin I,13,6 ↗.

we would answer:] Then how can one negate that [object]? For it's not possible to negate an object that is utterly unapprehended, like a *piśāca*. [You might say:] What's negated is its [the object's] (*asya*) difference from cognition, not the object itself, because it [the object] is of the nature of cognition. [We answer:] How, in turn (*api*), can that difference, which is utterly unapprehended, be negated?

+148,20 If it [the difference] is [in fact] apprehended, then in that case, it's not utterly unreal. [You might object:] How can one negate e.g. an ass's horn or the primordial cause [of Sāṃkhya] (*pradhāna*)?⁵⁷⁶ [We would answer:] No [that's an inappropriate comparison], for even in those cases, what is negated is that [on the one hand] something horn-like (*viṣāṇajātiya*), which has in fact been apprehended [before], could have grown on the head of an ass, and that, on the other hand, pleasure, pain, and ignorance [which have also been apprehended before] are the material cause of the world. Alternatively, what is negated [in the latter case] is that the material cause of the world, which is inferred [to exist] through reasoning about atoms, is of the nature of pleasure and so on and that it is unitary.⁵⁷⁷ In this same way, it should be understood also in other cases that one is negating the [particular properties like] place, time, causal capacity, and so on of something which certainly has been apprehended [already].⁵⁷⁸ And yet (*ca*), on the position of self-awareness, what is [in fact] taught is that difference is never [actually] apprehended [at all].

148,28 Moreover (*ca*), the negation of difference [between cognition and object] is not a means of valid knowledge because its object is undone by [none other than] direct perception. To explain: A cognition is known to be characterized by an inwardly-facing form (*antar-mukhākāra*), unsteadiness, and so on, whereas an object like e.g. blue is known as being external and steady. And also [the negation of difference is not a means of knowledge] (*ca*) because it contradicts the everyday actions of even the simplest living being (*prāṇabhṛn-mātra*). For indeed, there is no one who, with knowledge (°*avagamena*) only of cognitions being destroyed moment to moment, takes action to obtain what is desired and to avoid what is not.⁵⁷⁹ [And] to say [simply] that (*iti cet*) this whole world (*etat sarvam*) is like e.g. a dream is not correct, because even you are observed to take action and so on when troubling things arise for you (*utpannabādhaka*).

§

Buddhist conceptual cognition properly exemplifies other-cognition without regress.

149,4 Another [Buddhist] objection: If an object is a different thing from cognition, then how

⁵⁷⁶ Both of these are agreed to be fully non-existent entities in this debate between the Naiyāyika and Buddhist.

⁵⁷⁷ That is, once inferred to exist, the material cause of the world has been effectively apprehended (*drṣṭa*), and then, it is only a certain predicate (e.g., being of the nature of pleasure and so on) that is denied to it.

⁵⁷⁸ In the later terminology of Navya-Nyāya, one can easily distinguish the “counterpart” or “adjunct” (*pratiyogin*) of a negation, i.e., that which is actually being negated, here the particular properties in question, from the “subjunct” (*anuyogin*) of the negation, i.e., that which serves as the substrate for what is being negated, here the apprehended object that possesses those properties.

⁵⁷⁹ For the perhaps awkward phrase with causal instrumental °*avagamena* (as in V, vs. circumstantial locative °*avagame* in P and E) compare the similar phrasing with an ablative below at 152,19–20: “*na hi jalādibhrāntinivṛttau tatsaṃskārād eva tadarthakriyāsiddhyartham pravartamānah kaścid upalabhyate.*”

could any object whatsoever be apprehended by that [cognition]? If it is by way of perceptual connection [of thing and cognition] (*darśanasambandha*), then in turn, if that connection is its own thing, then one must fashion (°-*kalpanā*) another connection also for that connection, and so there would be an infinite regress.⁵⁸⁰ If it [the connection] is not a different thing, then how can an object which is a different thing from cognition be established by direct perception? Therefore, what is correct is that one apprehends the object insofar as it exists as internal to (°*antahpraviṣṭaḥ san*) the cognition [itself], whereas insofar as it [the object] doesn't [at all] touch it [the cognition], then one does not [apprehend it].

+149,8

Thus it is said:⁵⁸¹ “It cannot be by means of a [given] cognition [of it] that an object is established to be external to it [the cognition] (*ataḥ*). On the other hand (*tu*), if it [the object] should be external to the cognition, then it itself (*sa eva*) cannot be established. / If one apprehends blue, then how is it said to be external? If one does not apprehend it, then how is it said to be external? / If it [a cognition] were apprehended (*vedane*) by another [cognition], then [that second cognition would be apprehended] by that [third] one, [and that third one apprehended] by that [fourth] one (*tena tena*), and hence this would be an infinite regress. And again (*ca*), if it [a cognition] were apprehended by another [cognition], then how would this [very fact] be determined in its own right (*ātmanā*)?”⁵⁸²

149,16

[To this we would answer:] This is also incorrect. Indeed, it was already established earlier that each and every thing that is apprehended is apprehended by a cognition distinct from it. And also (*ca*), we will explain that the property and property possessor are two different things.

149,19

Moreover, just like with ascertainment (*niścaya*) [on your view], there is no infinite regress. [That is,] on your view, ascertainment is conceptual in character (*vikalparūpa*), and even as it certainly does not ascertain itself, it does ascertain another thing, and there is not [thereby] an infinite regress of ascertainment. In the same way (*yathā...tathā*), it's not problematic (*aduṣṭa*) also for another cognition (*anyasyāpi jñānasya*), while [being itself] certainly not apprehended (*ajñātasyaiva*), to be able to differentially establish another thing as its known object (*jñeya*).

+149,21

And you yourself [certainly do] accept that ascertainment does [successfully] differ-

⁵⁸⁰ For the phrasing of this sentence, cp. [≡ PVA 257,14–15 ↗].

⁵⁸¹ See [= PVA 366,16–19 (kk. 717–720ab) ↗], which perhaps can be improved on the basis of Bhāsarvajña's text here. Namely, PVA appears to have a spurious half line k. 719ab that ends like k. 718d (*katham bāhyam tad ucyate*) and begins like k. 719c (*anyena vedane tena*) without contributing anything useful to the argument. I suspect it to be the result of two duplications, probably due to twin eyeskips back and forth. Yogīndrānanda's own edition of PVA (1991) prints the exact same text as Sankṛtyayana's for all of these kārikās, and his translation finds no such issue with k. 719: “यदि अन्य के द्वारा उसका वेदन होता है, तब वह बाह्य कैसे? इसी प्रकार अन्य-अन्य के द्वारा संवेदन मानने पर अनवस्था उपस्थित होती है ॥” (883). Also, Bhāsarvajña either doesn't know about k. 720cd, or he doesn't see it as essential to the argument here.

Finally, note that V additionally omits k. 718cd (*na cet saṃvedyate nīlam katham bāhyam tad ucyate*), ostensibly by another simple eyeskip. Cp. V's similar omission of such a tersely repetitive verse from PVin/PV above at NBhū 108,18 (“*dhiyo nīlādirūpatve...*”). On the other hand, compare also V's curious repetition immediately before, at 108,10 for what may possibly be added rhetorical effect (see footnote 233 above).

⁵⁸² That is, regardless of the content of the first cognition, the very fact that it is known by another cognition would itself remain unknown.

tially establish another thing, since it is taught [by you]⁵⁸³ that “When there is [illusory] cognition of [floating] hairs, it has come about (*prāptir āśīt*) as a result of remembering something experienced previously, [and] immediately following the appearance of something like that (*evambhūtapratibhāsa*). From that (*tad*), a conceptual construction arises (*utpattimat*) by way of a manifestation (*ullekha*) of apprehended and apprehending [forms], and that [conceptualization] in turn, being in itself (*so ‘pi svarūpeṇa*) totally without forms (*rūpas*) of apprehended and apprehending, is differentially established as such by another [cognition]. There is no automatic (*svataḥ*) regress also of that.”

+149,25 If you say, since conceptualization is of the nature of memory, it is certainly without object support, [we would answer:] fine, [but] even so, it [the conceptualization] is in the first place (*tāvat*) certainly accepted [by you] as being capable of differentially establishing another thing as having the character of (*ātmakatvena*) e.g. apprehended and apprehending [forms], momentariness, and so on. Similarly [then], let those [same cognitions] which are, sure (*eva*), without object support (*nirālamba nānām*) [also] be able to differentially establish external objects as having (*°ka*) [the properties of] e.g. steadiness and so on. We’re not obstinate [about this] (*nāsmākam grahaḥ*). [That is to say] this might be the view: Because conceptual construction is of the nature of memory, and because it thus can possess epistemic instrumentality only by way of differentially establishing (*°vyavasthā-pakatvenaiva*) an object just as it is experienced (*yathānubhūtartha*), therefore a conceptual construction can possess epistemic instrumentality (*prāmānya*) only if it differentially establishes a property of a cognition apprehended by itself (*svavidita*), [and] not, on the other hand (*na tu*), if it should differentially establish a property of an external object that is [in fact] not directly experienced [by the conceptual cognition] (*an anubhūta*).

+150,1 [To this we would answer:] How would this [property of the cognition] be known? First of all, it’s certainly not possible that its [i.e. a cognition’s] own nature of e.g. momentariness can be apprehended by being directly experienced, purely (*eva*) non-conceptually. Meanwhile (*tu*), as for (*api*) that which is external, there is certainty (*niścaya*) about it, so (*iti*) how is [it claimed that] it [i.e. the external object is] not experienced? And also (*ca*), it is not accepted on your view that something that apprehends what has [already] been apprehended⁵⁸⁴ can have epistemic instrumentality, since it is said [by you] that (*iti vacanāt*), “Given that it [memory] apprehends a [thing’s] form as it was [previously] apprehended (*yathādṛṣṭākāra*), it is not a means of knowledge,”⁵⁸⁵ and also because there is the qualification “Alternatively, it [a means of valid knowledge] is that by which there is illumination of an object that was [previously] unknown.”⁵⁸⁶

⁵⁸³ See [= PVA 366,12–16 ↗].

⁵⁸⁴ Here, the self-aware cognition.

⁵⁸⁵ Thanks to the editing work of Steinkellner (2016), we can now confidently identify this sentence as [= HB 3,2–3 ↗]. The P1 scribe does not seem to recognize the quotation and suggests *vikalpa* for the logical subject of this sentence, which we can judge as half-correct, since memory is indeed conceptual.

⁵⁸⁶ See [= PV 2.5c ↗], also quoted at [= PVA 30,2 ↗].

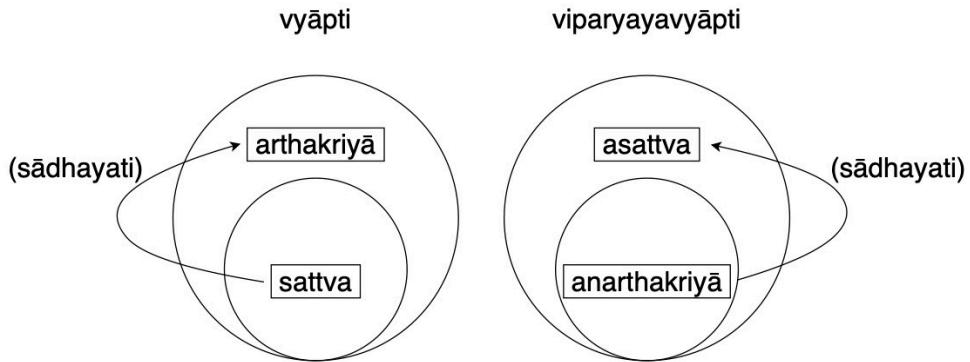


Figure 1: *Example of pervasion and contrapositive pervasion*

§

An inferential subject must be established also for oneself through perception etc.

150,6 Moreover, how are the things which distinctly (*vicchedena*) appear also in e.g. dream cognitions ascertained to be unreal? If one says [it is ascertained] on the basis of either disagreement or non-apprehension of pragmatic efficacy (*arthakriyānupalabdhi*), [in either case] that is incorrect. For insofar as (*yadi*) the [positive existence of an] object (*artha*) is ever apprehended as pervaded by non-disagreement or by pragmatic efficacy, then the non-existence of the object (*arthābhāva*) can be established by the absence of those [non-disagreement and pragmatic efficacy], just as where there is no fire, there is no smoke. But when one completely disavows (*atyantāpahnava*) external objects, then it [the object's non-existence] is not [ever] apprehended as having a pervaded-pervading relationship with anything at all, so how can the contrapositive pervasion apply (*katham viparyayavyāptih*)?⁵⁸⁷

+150,11 The following might be supposed [in response]: The fact that cognitions in e.g. dreams do not have [real] objects (*viśayābhāva*) is [already clearly] established for everyone, so it is not being proven by us. [Answer:] No [this response is inappropriate], because what is well-established for [normal] people is not accepted as a means of valid knowledge. Alternatively, if it is, then on that basis alone, [real] objects can be established [also] for the waking cognitions which have been made the inferential locus [by you here]. Thus, how is a lack of object support established for all cognitions?

+150,14 Moreover (*ca*), it's not appropriate to take up as an example case something with

⁵⁸⁷ Read just °*vyāptih*, without an extra *syāt* here. For the subtle argument itself, see Fig. 1 for a graphical representation of the pervasion relationships involved. The basic idea is the same as before. Restated in simpler words: An object that is never apprehended cannot function as the locus for inference, no matter what the pervasion relationship of the properties involved (here: "existence" and e.g. "causal efficacy", or reversed, e.g. "lack of causal efficacy" and "non-existence").

which one does not oneself agree (*svayam...a pratipadyamānasya*) merely on the basis of what is well-established [only] for the opponent, because an inference for the sake of others is characterized [by Dignāga] as illuminating something [already] acknowledged by oneself.⁵⁸⁸ It is furthermore taught:⁵⁸⁹ “For indeed, inference-for-another is a statement of an inferential mark, with its three [necessary] characteristics, for the sake of producing in [the mind of] another a cognition of that [target property] which is characterized by the inferential mark in the very same way that [such] a cognition about that [target property] which is characterized by the inferential mark has [previously] arisen for oneself (*svayam...utpannam*) on the basis of that [same] inferential mark with its three [necessary] characteristics.” [This is explained as being called an “inference”] “on the basis of a metaphorical extension of effect onto cause”.⁵⁹⁰ [Furthermore] the use of [the phrase]

⁵⁸⁸ See = PS 3.1ab “*parārtham anumānam tu svadrṣṭārthaprakāśanam*”. For the Sanskrit reconstruction, see footnote 589 below. Dharmakīrti also repeats this without changes as his [= PVin 3.1ab (2011, 1) ↗], which, as we see from the immediately following further quotation of prose, is probably Bhāsarvajñā’s actual source in this case.

⁵⁸⁹ Thanks to the editing work of Hugon & Tomabechi (2011), we can now confidently identify this sentence (“*tathaiva paratra...kāryopacārāt*”) as [= PVin 3 p. 1,2–7 ↗]. In turn, the smaller aphoristic sequence of [= NB 3.1–2 ↗] (“*trirūpaliṅgākhyānam parārtham anumānam / kāraṇe kāryopacarāt /*”), to which Yogīndrānanda (1968) loosely refers (150n3), is ultimately reducible to quotations of PS 3 originals. Cp. Katsura’s Sanskrit reconstructions from the Tibetan, as cited by Watanabe (2011, 465–466), of the initial verses of PS 2 and 3, as well as of Dignāga’s prose explanation of the latter (likely informed by such sources as none other than the NBhū itself):

PS 2.1ab: *anumānam dvidhā svārtham trirūpāl liṅgato 'rthadṛk /*

PS 3.1ab: *parārtham anumānam tu svadrṣṭārthaprakāśanam / yathaiva hi svayam trirūpāl liṅgāl liṅgini jñānam utpannam tathā paratra liṅgijñānotpipādayiṣyā trirūpaliṅgākhyānam parārthānumānam /*

Watanabe’s own English translation of this prose explanation is also useful:

“To explain: the inference for others is a [proponent’s] statement of the logical mark (*liṅga*) which possesses three characteristics[. And this proponent] wishes to give rise to the knowledge of the marked (*liṅgin*) in [the mind of] the opponent, just in the same manner as [the proponent] himself gives rise to the knowledge of the marked based on the logical mark which possesses the three characteristics” (466).

Watanabe then goes on to note: “[...]hen someone makes the inference for others, he must use the same logical reason which is used in the inference for oneself. In other words, the inference for oneself is made on the basis of a logical reason which is accepted not only by the proponent, but also by the opponents” (ibid.)

Finally, Prajñākaragupta of course also discusses the same in his own chapter on *parārthānumāna*, e.g. explicitly citing the PS for its *trirūpaliṅgākhyānam* characterization at [= PVA 468,1 ↗].

⁵⁹⁰ That is, the “real” inference is what takes place in the listener’s own mind when the *pakṣa* is successfully concluded to possess the *sādhya*, but since it is the speaker’s statement that causes this effect in the listener, this statement is by extension also called an “inference”.

(*grahana*) “illuminating something [already] acknowledged by oneself”⁵⁹¹ is [according to Dharmakīrti] for the sake of conveying that that which is known to an opponent from [their own] scripture is not a [proper] means of establishing [anything], and that there is no establishment [of anything] based on something meaningless (*anartha*).” Therefore, dream cognitions and so on are not, merely by being well-established for an opponent, appropriate as an example case. What’s more, the argument (*sādhana*) beginning with “apprehension together” was already refuted earlier, and so the example case [here, of dream cognitions] cannot be established on the basis of that.⁵⁹² Alternatively, if it [the example] is established [for use], then also the property to be proved could be established on the basis of that alone, so that [the inferential reason of] being a cognition would be useless.

+150,21 Moreover, the form of e.g. blue appearing in e.g. dream cognitions is certainly something practical agents understand to be unreal as a result of a blocking cognition. So (*tat*), if (*yadi*) that [unreal form] (*asau*) is not a different thing from the cognition, then the cognition itself (*eva*) ends up being unreal [as well]. Otherwise [i.e. if it is a different thing] (*vā*), [then] the e.g. dream cognition does not have the form of e.g. blue (*añilādyākāra*), and therefore, the inference about the lack of object support would [in fact] end up having the sense (*vākyārtha*) that “all cognitions are without form, because they are cognitions, like e.g. dream cognitions”. And if in this way, cognition has a form of e.g. blue that is neither distinct nor non-distinct [from the cognition], then there results a complete failure of ordinary behavior.

§

Without object support, one cannot explain successful correspondence.

+150,27 And if all cognitions are without object support, then based on what is there restriction in (*iti...ayam niyamah*) practical agents’ sometimes disagreeing and at other times, even when there is a separation (*vyavadhāna*) of place, time, and so on, nevertheless (*eva*) agreeing? If you say that it is due to differences in mental traces, then you [must] think [the following] (*atha manyase*): There is disagreement about that which is conditioned (*yatra... nimittam*) by a weak mental trace, whereas there is agreement about that which is conditioned by a firm mental trace. [To which we would answer:] No [one cannot claim this], because there
(-151,5) is no means of valid knowledge [to prove it]. Moreover, in this way, it’s better that [simply] the external objects themselves (*eva*), by way of their [own] differences of firm vs. not firm (*dṛḍhādṛḍhabhedena*)⁵⁹³ be construed as (*kalpanīyam*) the causal condition [for restricted intersubjective agreement], since they [the external objects] can be the object of practical activities, whereas mental traces cannot.

+151,6 Moreover, what is the causal condition for the [supposed] firmness of a [given] mental

⁵⁹¹ Namely, by Dignāga in his characterization of inference-for-another at PS 3.1ab.

⁵⁹² That is, on the basis that the object seen in the dream is never seen independently of the dream, but rather always together with it.

⁵⁹³ What exactly Bhāsarvajña means by the “firmness” of a given external object is not yet clear to me, but it is intriguing to wonder whether by it he means to distinguish concrete, middle-sized objects from those that are relatively fluid and unitary only in relatively more abstract ways, like water, smoke, and fire.

trace? First, it's not an intense cognition (*paṭupratyaya*)⁵⁹⁴, since the specialness of a first-time object (*apūrvārthaviṣeṣa*)⁵⁹⁵ is not accepted. And there does not arise (*utpadyate*) without rhyme or reason a particular cognition (*pratyaya*) on the basis of awareness (*jñāna*) alone. Alternatively, if (*atha*) an attentive cognition or a cognition with repetition are [proposed as] the causal condition, [then we would answer] no [these cannot be it either], because there is inconsistency [in their production of firm mental traces] (*vyabhicāra*). To explain: For those overcome by desire, sorrow, and so on, even if objects like one's [absent] lover, one's [deceased] children, and so on are cognized along with a great deal of attention or repetition (*ādarābhy āsātiśayapratīta*)⁵⁹⁶, nevertheless, a cognition with such an object is observed to sometimes disagree [with reality].⁵⁹⁷ And on the other hand (*punar*), sometimes a cognition concerning [something which had been] a completely first-time object, despite its [the object's] not producing surprise (*anāścaryakārin*)⁵⁹⁸, does in fact agree [with reality]. [Objection:] Also in that case, there is a mental trace produced in a previous birth. [Answer:] No, [that also cannot explain the agreement,] because that [mental trace] can [be made to] disappear through repetition of cognition that is contrary to it (*tad viparīta*). For otherwise, also the mental traces of desire and so on could not [be made to] disappear through repetition of e.g. [the idea of] no-self.

+151,14

Moreover, if there are no objects distinct from cognition, then there is no cause that can awaken mental traces in a regulated way (*niyata°*).⁵⁹⁹ For indeed, once a previous cognition has been destroyed, there exists [as a remainder] a cognition existing in the present time (*sāmpratam*) which certainly has the nature of multiple mental traces.⁶⁰⁰ How could appearances arise in a regulated way on the basis of that alone? Later on, too, we shall consider the mental trace as causal condition (*vāsanānimitta*), so it can be let alone for now.

§

Without object support, one cannot explain intersubjective action.

⁵⁹⁴ Cp. PDHS (1984, 267), and Śrīdhara's Nyāyakandalī thereon (1991, 229), in which a *paṭupratyaya* is illustrated by the case of a southerner seeing a camel (*dākṣiṇātyasya uṣṭradarśanam*). In Śrīdhara's words, because this southerner had never experienced such a thing before (*atyantānanubhūta*), it is surprising (*āścarya*) to him and thereby leaves a strong impression (*paṭuh saṃskārah*).

⁵⁹⁵ I have not been able to decipher what this phrase really means.

⁵⁹⁶ Read only *ādara* here, without *ati* as in E.

⁵⁹⁷ That is, such an object cannot be intersubjectively confirmed by others.

⁵⁹⁸ Read three locatives here (obscured by the lack of spacing and *avagrahas* in E): *atyantāpūrve 'rthe 'nāścaryakāriṇi*. The idea of the argument, expressed especially by the concessive *api* modifying *anāścaryakārin*, is that one would expect unsurprising things *not* to register strongly in consciousness, and yet sometimes there can be subjective agreement about just such things.

⁵⁹⁹ Cp. PV 3.336: “*kasyacit kimcid evāntarvāsanāyāḥ prabodhakam / tato dhiyāṁ viniyamo na bāhyārthavyapekṣayā //*”

⁶⁰⁰ For this idea of a cognition as *anevakāvāsanātmaka*, cp. the simile of the sprout later in the NBhū: “*yathānikurānālādyanekavāsanātmakasyāpi bijasya na yugapat sarvajanakatvam...*” (500). Translation: “Just as a seed, even though it has the nature of multiple traces, including sprout, reed, and so on, does not produce them all at once...”

151,18

Furthermore, an object like e.g. blue is not merely of the nature of cognition [also] for the following reason: because it [the object] can be known by [both] oneself and others. For indeed, that which is of the nature of cognition cannot be known by multiple people. How then is it to be understand that an object can be apprehended by multiple people? [Supposedly, one might say] because of the inferential mark that there is no disagreement (*avisam vāda*) in e.g. the undertaking of speech acts (*vacanapravṛtti*). But [in fact] since the e.g. speech of two people who see floaters (*taimirikadvayavacana*) finds disagreement among other people, it [i.e., a lack of disagreement per se] is not an [appropriate] inferential mark.

+151,21

And if the thoughts of others cannot be apprehended, then it would result that there would be no undertaking of action at all in e.g. the writing of systematic texts (*śāstrapraṇayana*) and so on. For not even a madman, only for the purpose of his own understanding, quotes (*vyāvacakṣ*) a text, advances proofs and so on in debate, and refutes (*nivgrah*) his own self by pointing out (*udbhāvana*) [which] e.g. statements [of his own are] lacking a [proper] inferential means [i.e. reason] (*sādhana*) or ancillary [inferential] components (*aṅga*).

151,25

[One might object:] Even if there is no external object, there is no problem, since it [an object's being known by multiple people] can be inferred by the inferential mark that there appear practical behaviors resulting from the functioning of others' thoughts. To explain: The arising of appearances, independent of one's own efforts and intentions, of [others'] gestures and speech acts⁶⁰¹ is inferred to be due to the agency of the other [person] (*anyādhipatyena*). [We would answer:] This is not right. After all (*hi*), for those who advocate [the existence of] only self-awareness, even knowing another cognition of one's own is not possible, [so] how could one know the thoughts of others? This has already been elaborated previously.

152,2

Moreover, for one who says that, all cognitions are, like dreams, without object support, how can it be established that there are other mental continua? For there can be no substantial (*vāstava*) proof of other persons by means of the appearances of [bodily] motions and speech acts (*gamanavacane*) which are observed in dreams (*svapna drṣṭa*). Nor can there be by way of [mere] dream thoughts (*svapnabuddhyā*) any stating and debating [of philosophical positions] and so on (*ākhyānavādādi karaṇam*) or victory and defeat in relation to opponents (*parānugrahajayaparājayādikam*). [And from that] it follows that there is no [more] undertaking of the means of bringing about (*°sādhanānuṣṭhāna*) positive merit and [eventually] liberation. After all, that which is done in a dream, [like, say] religious rites at e.g. Buddha shrines (*buddhālayādī karma*) or [also] celibacy, cannot bring about positive merit (*na...dharmasādhanam...yuktam*), nor can [for example] eating what is not given, having sex with inappropriate people, and so on [if done in dreams] bring about negative merit. And yet it is not the case (*na ca*), if [as you say] the two states of dream and

(–152,10) waking are equally devoid of [real] objects, that there exists a difference between them by means of which (*yena*) the means for [successfully] bringing about positive merit and so on can be differentially established [as being possible] in one [state and] not the other.⁶⁰²

⁶⁰¹ Effort (*prayatna*) and intention (*vivakṣā*) are what underlie physical gestures (*ceṣṭās*) and speech acts (*vākyas*), respectively.

⁶⁰² Yogīndrānanda's (1968) placement of this relative clause of result at the head of an entirely new section

- +152,10 [Here the Buddhist might object:] Even toward the means for bringing about [positive] merit and so on, one undertakes action only (*eva*) on the basis of error. [To which we would answer:] Why then do you [Buddhists], who [supposedly] understand reality, act so as to bring about awakening in [your] disciples by instructing [them] to, for example, make donations to the Buddha, Dharma, and Samgha? To say that this [action] is because of [the teacher's] previous mental impressions (*samskaras*) is also no real answer, because after all, no one, even if incompletely awakened (*vikalavatpratibuddho 'pi*), undertakes to eat impure food, for example.⁶⁰³
- +152,13 Therefore, these Buddhists, showing through their talk of emptiness a lack of substance [on their part] (*asaratā*), and misleading (*vipravṛtī*) people by saying things like (*ity evam*) “Give to the Buddha, give to the Dharma, give to the Samgha” and then, making [good] use of (*upayoga*)⁶⁰⁴ the [donated] tasty food and drink and so on, and, despite there not being a difference in the previous mental impressions [so they say],⁶⁰⁵ [carefully] abstaining from eating impure food and so on, and [yet at the same time] saying things like “similar to [illusory apprehension of a firebrand's] circular whirling (*cakrabhramaṇavat*), [human] action is simply the result of our previous mental impressions”, they [thereby] display only
- (-152,18) their own mischievousness. For just as when there is no [more] whirling (*bhrānti*) of the wheel [of fire], the mental impression of whirling motion (*bhramana*) does not [actively] arise (*bhavati*), in the same way, when the error (*bhrānti*) concerning tasty food and so on has ceased, the mental impression caused by that [also] does not apply [anymore]. After all, once an error concerning e.g. water has ceased, no one is seen to act on the basis of the [responsible] mental impression alone for the sake of accomplishing practical activity with it [e.g. quenching thirst].

§

Without object support, one cannot explain diversity of appearances.

- +152,20 Moreover, if there is no [external] object blue or the like, then how is there cognition of e.g. blue? For indeed, there is no effect without a cause, since this [idea] is contradicted by [the saying that a causeless thing] “either ever exists or (*vā*) does not exist” and so
- (-152,23) on.⁶⁰⁶ Moreover, there cannot arise (*sambhavati*) a distinct (*vilakṣaṇa*) appearance on the

(with header “*sarvabhrāntatve buddhādīnām āḍambaratā*”) (152,9) is a case of particularly misleading punctuation.

⁶⁰³ The argument is not clear here, and the text may need further correction. E emends P's *kalavatpratibudhau* to *vikalavatpratibuddho*, which I provisionally accept here (or perhaps *phalavat*° would be better?) The overall point seems to be that, if both meritorious and non-meritorious action are both based merely on error, then regardless of how enlightened a teacher is, it's not clear what constrains one to specifically teach some things as opposed to others. The following paragraph makes clear that Bhāsarvajña hopes to discredit his Buddhist opponent by revealing what he sees to be the latter's cynical self-interest.

⁶⁰⁴ This could very easily be corrected to *upabhoga*, but since *upayoga* is in fact used in the sense of “take, consume” e.g. throughout the *Suśrutasamhitā*, I allow the possible medical humor here.

⁶⁰⁵ That is, the apprehensions of pure and impure food are both equally based on error.

⁶⁰⁶ Cp. footnote 483 above.

basis of mere, unqualified awareness alone, as that would result in a contradiction with the inference [of a specific cause] from an effect.⁶⁰⁷ For it cannot be the [same] beginningless continuum [of awareness]⁶⁰⁸ apprehended equally (*avicchedena*) for every cognition of blue and so on [that is the means] by which (*yena*) the effect's [particular] conformity to its cause could be apprehended. Indeed, how, within a unitary (*eka*)⁶⁰⁹ stream of object appearances, does an appearance manifest itself (*prādurvabhū*) as different from that [stream] without encountering a cause distinct from that [stream]?

+152,26 Meanwhile, on the position that there are external objects, a person can, as long as co-operating factors are not hindered for him, [simply] have, upon encountering an [external] object like e.g. water, an undistorted (*avatatha*) cognition of the e.g. water in complete conformity to that object. On the other hand (*tu*), when his cooperating factors are hindered, the opposite occurs. [Examples of the latter are] like when (*yathā*), in relation to [what is actually] mist, those with afflicted sense organs have, as a result of the unseen force (*adr̥ṣṭa*) and so on, a cognition of a Gandharva city, [or when] those with sense organs overcome by e.g. a magic spell (*mantra*) have a cognition of food in relation to some [non-food] substance employed by a magician (*māyāvin*). Even e.g. dream cognition can occur about none other than an external object as a result of incidental occurrence (*upanipāta*) of other causal conditions, as was already explained earlier.⁶¹⁰

153,4 On the other hand (*ca*), there is no such diversity of causes on the position of consciousness-only, so how could it be that there is diversity of appearances? If you say that the diversity of appearances results from the trace impressions, [we would answer by asking] if objects distinct from cognition are not accepted, then what [exactly] is a trace impression?

153,7 Well surely it is taught [by the opponent] that those who understand mental traces understand by "mental trace" a power produced by previous cognitions.⁶¹¹ [To which we would answer:] So now (*atha*), does the previous cognition produce [such] a power which [itself] produces (*utpādikā*) cognitions similar to itself, or [does it produce one that] produces different cognitions? In the former case, from a cognition of blue produced by (*utpāditāt*) a cognition of blue there arises a cognition of blue, and in turn from that, [there arises] none other than a [further] cognition of blue, and so there is a continuum of [just] blue cognitions. In [such] a unitary (*eka*)⁶¹² continuum, there could not arise cognition with a manifold form.

+153,11 On the other hand, in the latter case, there could not be a stream of cognitions with one [same] (*eka*) form for any length of time (*kiyantam api kālam*). What's more, it also wouldn't be possible for it to produce at another [later] time something [namely, a cognition] similar to it,⁶¹³ since, thanks to momentariness, a thing that has ceased to exist (*naṣṭa*) cannot

⁶⁰⁷ That is, the distinct effects imply distinct causes, not a single, uniform cause.

⁶⁰⁸ I.e., of the type that Buddhists frequently speak of.

⁶⁰⁹ Here, *eka* conveys the sense of homogeneity. Cp. footnote 612 below.

⁶¹⁰ Specifically, the object of a dream cognition is a real external object lying in the past. See Bhāsarvajña's defense of *viparitakhyāti* against competing theories at NBhū p. 26ff.

⁶¹¹ See = PVA 356,6 ↗.

⁶¹² Cp. footnote 609 above.

⁶¹³ This particular criticism continues to dwell on the second case, namely of producing unlike cognitions, and

produce [anything]. Also the idea that (...*ity etad api*) it [the relatedness of moments in a continuum] is “like the redness in cotton” is something we will refute later on.⁶¹⁴

153,14 Moreover (*kim ca*), it is observed that a thing is [generally] infused (*vāsyamāna*)⁶¹⁵ by means of something other than the material cause [itself], like e.g. cotton [cloth] with e.g. [the color of] lac, or (*ca*) a garment with e.g. [the fragrance of] flowers.⁶¹⁶ And yet (*ca*) for cognition, no other cause (*anyat kāraṇam*) besides the material cause is accepted [by you here].⁶¹⁷ On the other hand (*tu*), how could cognition in another continuum, which is, like external objects, not knowable [to the cognitions in one’s own continuum] be accepted (*vikalpa*) as that which does the infusing?⁶¹⁸

§

Without object support, one cannot explain vividness and newness.

+153,16 And if the mental trace itself were the causal condition [for itself being fixed in place], then it would be just memory, [and there would] not [be any] vividness (*spaṣṭābhatā*) [in it]. For indeed, there exists no clear example case properly established for both [of us] (*spaṣṭa ubhaya prasiddho drṣṭāntaḥ*) concerning a vivid cognition resulting from mental traces alone. On the other hand, concerning the opposite [case] (*viparyaye tu*),⁶¹⁹ memory itself is an [accepted] example case. [Meanwhile] the cognition [that occurs] for those overcome with e.g. desire [and] in which there appears e.g. a woman is no [proper] example case [for such vivid cognition], since it remains to be established [as arising from mental traces alone], given that it, too, has e.g. a post for its object support, and because it does not arise for one

specifically notes that, after producing the unlike cognitions, it could never get around to producing a like cognition again so as to be able to secure any apparent continuity whatsoever.

⁶¹⁴ See NBhū: *kārpāse raktatāvad iti cet — athāpi syāt: yasminn eva hi saṃtāna āhitā karmavāsanā / phalam tatraiva badhnāti kārpāse raktatā yathā //* (cp. 1968, 495, with insignificant orthographic differences). Translation: “Indeed, the [karmic] result binds to the very same continuum in which the karmic mental trace is deposited, like redness in cotton.” This verse is also known to Jayantabhaṭṭa (1969, II,297), but I have not yet managed to trace it any further back in time.

⁶¹⁵ Here the metaphor of “infusing” or “perfuming” behind the idea of *vāsanā* is made explicit.

⁶¹⁶ Prajñākaragupta seems to be discussing similar ideas at his ÷ PVA kk. 2.680–81 (p. 358,34–35) ↗

⁶¹⁷ For Buddhists, the material cause of a cognition is a preceding cognition which is of the same type and so not sufficiently different (*anya*).

⁶¹⁸ The idea that different mental continua can influence each other is one of the main claims of Vasubandhu’s Viṃśikā. For example, *piśācas* can cause memory loss, one person can induce dream in another, and sages can cause death (a transformation of consciousness) in those they are angry with:

“*maraṇam paravijñaptiviśeṣād vikriyā yathā / smṛtilopādikānyeṣām piśācādimanovaśāt // 19 //*
yathā hi piśācādimanovaśād anyeṣām smṛtilopasvapnadarśanabhūtagrahāveśavikārā bhavanti, ḥd-dhivanmanovaśāc ca — yathā sāraṇasyāryamahākātyāyanādhīṣṭhānāt svapnadarśanam, āraṇyakarṣi-manaḥpradoṣāc ca vemaṭitriṇāḥ parājayāḥ — tathā paravijñaptiviśeṣādhipatyāt pareṣām jīvitendriyavirodhīnī kācid vikriyotpadyate, yayā sabhāgasamṛtativicchedākhyām maraṇam bhavati | iti veditavyam /” (Silk 2018, 133ff.)

⁶¹⁹ I.e., for a non-vivid cognition resulting from mental traces.

whose eyes are shut.⁶²⁰

153,21

Also when it is said that, just as the objects apprehended in a dream are not real because of not being apprehended in the waking state, so too are the objects apprehended while awake (*jāgrad upalabdhārthānām*) not real because of not being apprehended in the dream state, that too is incorrect, because the things apprehended in dream are observed to be distorted (*viplava*) even during the dream [itself]. To explain: Even if one drinks a large amount of water [in a dream], thirst is not quenched (*trṣṇāvicchedo na bhavati*)⁶²¹; even if one eats food, hunger does not cease;⁶²² dead people and those with their heads cut off are seen living and talking; even cows and so on (*gavādayo 'pi*)⁶²³ are seen talking; there is suddenly (*kṣaṇamātreṇa*) inversion of the classes (*jāti*) of animals and humans,⁶²⁴ as well as overturning of cause and effect.⁶²⁵ Such is the [kind of] distortion that appears [in dreams]. On the other hand (*ca*), waking cognitions are not also subsequently reconciled (*anusandhiyante*) within the dream state as being decidedly unreal.

154,7

But surely [the Buddhist objects], despite (*api*) its being apprehended during sleep, seminal emission does not deviate [from reality].⁶²⁶ [To which we say:] What of it? [The Buddhist continues: Namely, that] it [then] ends up that the cause thereof, namely, the [dreamt-of] contact with a woman is also real.⁶²⁷ [Here we would answer:] No [this does not follow], because seminal emission (*retahsyanda*)⁶²⁸ is also possible as a result of intense

⁶²⁰ That is, in the erroneous cognition of a woman where there is really only a post in the distance, the external post is clearly playing a causal role.

⁶²¹ This conjecture is supported by NBh 4.1.55, where the similar collocation “*trṣṇā vicchidyate*” is found, as well as on visual grounds: It is much more plausible, *akṣara* by *akṣara*, to see P’s “*vṛddhyavastheda*” as a misreading of *trṣṇāvicchedo* than to see it as a misreading of E’s semantically equivalent but graphically distant *tarṣopasamo*.

⁶²² These first two examples about food and water seem to allude to \div VimśV p. 3 (1925) \leftrightarrow , namely: “*an-napānavastraviṣṭayudhādi svapne drṣyate, tenānnādikriyā na kriyate /*”.

⁶²³ Read a *ca* connecting the two present participles preceding *gava* here rather than E’s conjecture of *aśva* in compound.

⁶²⁴ Although it is incidental to the larger argument, I’m not sure whether this curious inversion is meant as the swapping of humans with non-humans, or instead the swapping of subclasses within each class, for example, various types of animals with each other and various classes of humans with each other.

⁶²⁵ I’m not familiar with effects becoming causes in dreams and vice versa, so perhaps this is a more general restatement of the first point above about simple disappointment of expectations regarding causes and effects.

⁶²⁶ This reference to *śukravisarga* suggests \div VimśV p. 43 (2018) \leftrightarrow , namely its example for how the position of consciousness-only (*vijñaptimātratā*, which Silk 2018 translates as “manifestation-only”) does not prevent one from accounting for the accomplishment of practical action (*kṛtyakriyā*): “*yathā svapne dvayasamāpattim antareṇa śukravisargalakṣaṇaḥ svapnopaghātaḥ /*”

⁶²⁷ The idea here seems to be that, if one agrees that the seminal emission apprehended in dream is found to be corroborated upon waking, then, since a real effect cannot have an unreal cause, the cause must be as real as the effect. The middle premise is immediately denied.

⁶²⁸ I restore the manuscript reading *syanda* here, but it should be noted that the collocation *retahskanda*, with *ska* instead of *sya*, is more widely attested, such as in the legend of the sage Dadhīca. E’s reading *spanda*, by contrast, seems to be just a typo.

(°-*atiśaya*) desire arising out of a false cognition,⁶²⁹ and [also] because [upon waking] there is no apprehension of [other] effects (*kārya*) such as garlands, perfumed ointments, nail scratches, and so on.⁶³⁰ Therefore, whether for someone awake or asleep, that cognition which does not disagree [with reality] is one with a real object. Meanwhile, that which does disagree is one with an unreal object, which is to say (*ity arthaḥ*), one whose object support is contrary [to reality].

154,12

Moreover, that which is apprehended to correlate positively and negatively with contemplation⁶³¹ fits as being causally conditioned (°-*nimittam yuktam*) by mental traces, like desire, anger, and so on. Meanwhile, things like money and grain and so on do not grow and prosper (*samvpad*) for one who lacks the [proper] means, like ploughing, even despite intense contemplation. [And on the other hand], it is observed that, even without contemplation, one does obtain first-time objects, whether desirable or undesirable.

154,15

Then, one might [finally] object out of [sheer] boldness (*atha* [*vaiyātyāt*])⁶³² that a first-time object is not [ever] apprehended at all. To that (*tad*) it is taught [in response] that, in that case (*tadā*), a first-time apprehension of a systematic teaching concerning liberation, too, could not occur (*na syāt*). And then, the mental trace that is the means for liberation cannot bring about liberation because it is, just like the mental trace that is the causal condition for [continued] transmigration, not in accord with reality (*atāttvika*).⁶³³ For indeed, [in your view] it is not the case that there is ever apprehended a causal condition which could produce (°-*dhāyaka*) a first-time trace impression and based on which (*yadvaśāt*) liberation, which is [by nature always] for the first time (*apūrva*), could occur.

§

Conclusion: The gross object form belongs to the (whole) external object support.

+154,18

Thus, in this way, because it is contradicted by means of valid knowledge like direct perception and so on, as well as by those things [taught] in your own system (*śāstrārtha*), it is certainly incorrect [for you] to say that everything is cognition without any object support at all. So, it was correctly taught [by us] that [it is] an [external] object, not cognition, [that] possesses the gross form [we perceive].

⁶²⁹ I am not familiar with this particular situation involving a false cognition, but perhaps the above-mentioned misapprehension of a post in the distance as one's lover could be an example.

⁶³⁰ That is, the woman in the dream, and so also the contact with her, is clearly not real, because when one wakes up, one does not also find other expected effects of her having been there, such as flowers and sandalwood paste left on the bed or the marks of lovemaking left on one's own body.

⁶³¹ Cp. [\cong PVA 359,8–9 \leftrightarrow].

⁶³² The P1 scribe glosses this with "dhārṣṭyāt".

⁶³³ I read with E's speculative emendation °*vad atāttvikatvān na* for P's °*vad anātvān na* (V has long since broken off here), but I wonder whether there may be a better solution.

4 Discussion

I begin this discussion of NBhū 104–154 with an analysis of its internal structure in semi-narrative form.⁶³³ I then proceed to critically assess to what extent Bhāsarvajña can be judged as successful in his argumentation.

4.1 Internal Structure of NBhū 104–154

As is common in such Indian philosophical debates, the discussion of the whole (*avayavin*) consists of two parts: an initial, shorter *pūrvapakṣa* (here: §§1–2) followed by a longer *siddhānta* (here: §§3–4). In turn, the *pūrvapakṣa* here consists of two halves, each of which is matched by a corresponding half of the *siddhānta*. Thus the overall structure is:

§1 (Pūrvapakṣa A)	§2 (Pūrvapakṣa B)
104,06–107,3	109,27–132,09
answered by	answered by
§3 (Siddhānta A)	§4 (Siddhānta B)
107,3–109,24	132,11–154,20

The first *pūrvapakṣa-siddhānta* pair (§1 and §3) focuses on the Nyāya-Vaiśeṣika theory of realism. That is, in §1, the Buddhist *pūrvapakṣa*, and above all Dharmakīrti, is first made to voice a number of arguments against Nyāya-Vaiśeṣika realism. Then, in §3, Bhāsarvajña answers these challenges at length, with one large digression for raising and responding to further Buddhist arguments, specifically from Prajñākaragupta.

In turn, the second pair (§2 and §4) focuses on the Buddhist theory of “mind-only” (*vijñaptimātratā*) and non-dualism of wonderous variegation (*citrādvaita*). That is, in §2, the Buddhist *pūrvapakṣa*, again featuring Dharmakīrti, is first made to advocate the view that external objects cannot be proven to exist and that reality is only cognitive in nature. Then, in §4, Bhāsarvajña again answers at length, and again he makes one major digression for more detailed thoughts from Prajñākaragupta. Of course, it should also be noted that within each of these sections, and even within the Prajñākaragupta digressions, many more objections from other views are also voiced.

Narratively, the argumentation of the entire passage NBhū 104–154 can be summarized as follows:

(Background) The realist (Naiyāyika) view takes familiar everyday objects to be both really existent as such and the primary objects of our perception, just as they seem to be.

⁶³³ This narrative account can be compared against the tabular outline provided in Appendix 10.

§1 However, the anti-realist Buddhist argues that numerous mereological paradoxes arise when we try to reconcile in what way these whole things coexist in space with their parts, and in what way ultimate support could be provided by partless atoms. The paradigmatic case and metaphor for complex reality is variegated color. As a result, the anti-realist (with the help of an intermediate Buddhist realist perspective that endorses the existence of external atoms) concludes that since such wholes cannot withstand analysis, we cannot in fact endorse them as fully real.

§2 Moreover, continues the (fully) anti-realist opponent, it appears to be impossible to prove beyond a reasonable doubt that any objects exist externally at all. This counter-intuitive idea is supported by arguments for the role of cognitive forms corresponding to phenomenal objects.

§3.1 Beginning to respond to this, Bhāsarvajña points out immediate logical problems with the initial paradox arguments against the whole. He then proceeds to also point out certain important metaphysical distinctions within his realist theory, above all “partial residence” (*pradeśavṛtti*), which he sees as already answering the questions concerning how parts and wholes can both coexist in space and sometimes appear to have divergent properties.

§3.2 Moving on to the paradigmatic case of variegated color, Bhāsarvajña affirms the ability of his realist theory (with its real substances, qualities, and universals) to properly explain this phenomenon, and he points out corresponding problems with both types of Buddhist positions invoked so far: Neither the realist Buddhist who accepts the real existence of external atoms but no composite substantial wholes nor the anti-realist who accepts only cognition and its internal forms can adequately explain such complex phenomena as variegation.

§3.3 The specific discussion of variegated color as a quality (*guṇa*) then gives way to a discussion of variegation as a metaphorical framework for non-dualism in cognition. Here, Prajñākaragupta is called upon to more elaborately draw out implications of Dharmakīrti's statements on how reductive analysis leads one to deny as false the apparent difference (*bhedapratibhāsa*) between internal cognition and external objects. Against this, Bhāsarvajña responds with an extremely subtle analysis of how this internalist position is self-defeating, in that negation of apparent difference is a slippery slope, especially when by negating an objective external world it undermines the very idea of error implicit in the idea of falsity. Here he counters the Buddhist's own reductio- or *prasaṅga*-type maneuvers (specifically those of Prajñākaragupta) with similar argumentation borrowed specifically from the skeptic Jayarāsi. Additionally, he invokes a Mīmāṃsā principle, voiced by Kumārila, that arguments of equal explanatory strength ought not be arbitrarily subjected to differential scrutiny. And finally, affirming realism as the *a priori* position to be preferred due to its general agreement with everyday reality, he firmly locates the burden of proof on anti-realists to make a convincing case otherwise, which with his destructive arguments he insists they cannot.

§3.4 Bhāsarvajña then returns to elaborating the Nyāya-Vaiśeṣika idea of a composite whole, and specifically the idea of support (*āśraya*) on which it depends. He namely clarifies that single things can unproblematically relate to multiple things. For example, he says that

a cognition can relate to multiple cognitive objects in the same way and that a physical thing (e.g., a rafter) can relate to multiple supports (e.g., support beams). He then further stresses that parts not only support their respective wholes but often must in turn themselves be wholes in their own right, lest it be impossible to justify our perception and naming of the range of experienced natural types. Nevertheless, he says, there are limits to which composite things do in fact constitute such genuinely new substances (e.g., armies and forests are not wholes, but a temple is) but the discussion does not anticipate further possible controversy on this point. Finally, Bhāsarvajña insists that the whole is in fact a new substance, not just a property, and that the partless atoms are an unproblematic foundation for it.

§4.1 Then, in response to the earlier Buddhist anti-realist claims (in §2) that external objects cannot be proved and that cognitive forms can explain phenomenal objects, Bhāsarvajña turns to carefully deconstructing the major Buddhist arguments for self-awareness (*svasamvedana*). First, building on his previous critique about how idealism is self-defeating, he begins to take issue with how Buddhist arguments against cognition-object difference must (naturally) start by presupposing this very idea of difference. He then refutes a number of further Buddhist arguments for cognition's self-awareness on other grounds, including those from memory, from alienation (*anātmīyatva*), and from the analogy to light. Finally, he concludes by showing that the Buddhist actually has no choice but to accept the reality of a certain kind of difference, namely between cognitions, concluding thereby that one need not go down the slippery slope and that one should instead simply attribute the appearance of difference to the real existence of external objects, as expected from everyday experience.

§4.2 Lastly, Bhāsarvajña takes on the Buddhist's separate but similarly anti-realist claim that all cognitions are like dreams (or perhaps illusions) in that they are without object support (*nirālambana*). He namely shows that insofar as Buddhists believe in self-awareness in the strong sense (which Bhāsarvajña insists is inevitable), they will not be able to maintain a coherent concept of object support (*ālambana*) on which to base their claim. Nor, he says, if as a result of this self-awareness one cognition is prevented from making epistemologically meaningful contact with another cognition, can inferential cognition be of any use for knowing anything about cognitions, since the inferential subject in such cases will be established only by a seeming means of knowledge, which Bhāsarvajña regards as a fatal problem for the Buddhist. Instead, he argues, it is more intuitive and more effective for explaining various phenomena (not only variegation but also intersubjective agreement, successful action, diverse appearances, vividness, and newness) to take our *prima facie* cognition of objects as constituting genuine knowledge which needs only further refinement, not complete invalidation.

4.2 Critical Assessment of Bhāsarvajña's Argumentation

The above narrative presents the overall flow of argument in broad and charitable strokes. By contrast, the actual experience of reading NBhū 104–154 is much messier. The text is often laconic, repetitive, and/or unruly, with countless small potshots and diversions. It is frequently not clear why a certain point is being made at a certain time. But this is all mostly a symptom of the genre, not a fault of the particular author. With longer study, the overall

rhetorical strategy does begin to emerge, and more important points can gradually be distinguished from their surroundings. What remains now is to evaluate whether this argumentative strategy, once reconstructed in this way, seem to us like a good one, both in its own context, and in a wider philosophical perspective.

Reconstructed Strategy

Reconstructed from the various arguments found in NBhū 104–154, Bhāsarvajña's primary strategy in the *avayavin* debate is to draw out problematic implications of the Buddhist opponents' arguments and then insist that these implications apply absolutely, not qualifiedly in the “two-truths” way the Buddhist suggests. In other words, wherever an element of the Buddhists' “absolute” view can be shown to be incompatible with elements of their “conventional” view, Bhāsarvajña counts this as a full contradiction to his own benefit in the debate. We can think of these as “implication traps”. His favorite such traps are:

- 1) If cognition only knows itself (the strongest possible reading of self-awareness), then the Buddhist has no right to speak of one cognition being about another. Alternatively, as a result of the same restriction of cognition to itself, one must inevitably accept full non-dualism, which in turn is philosophically untenable.
- 2) If in order to argue the non-difference of two things (e.g., cognition and object) one must first speak in terms of their apparent difference, then the initial assumption and the eventual conclusion are fully contradictory and the argument is self-defeating.
- 3) If all difference is false (the strongest possible conclusion to draw from the non-difference of cognition and object) in that there is no such thing whatsoever as real difference, then one would have no right to appeal to such differences as between truth and error or between inferential subjects and similar cases.
- 4) If there were no external world, there would be no objective facts of the matter to serve as unimpeachable ground-truth, and so error would become incoherent.

In all these cases, something the Buddhist would want to hold “conventionally” (e.g., that some cognition are about other cognitions, or that there is a practical difference between subject and object, or between inferential subjects and similar cases, or between truth and error) is said to be in conflict with something held “ultimately” (e.g., that everything is only momentary and cognitive in nature). Wherever Bhāsarvajña detects that his Buddhist has strayed into one of these vulnerable positions, whether by speaking in terms of a cognition that must be known by another cognition or by speaking in terms of any important difference whatsoever, he springs his trap, accuses the Buddhist of contradiction or inconsistency, and dismisses the whole argument out of hand.

By contrast, Bhāsarvajña spends a considerably smaller fraction of his time positively arguing for his own view, which involves such ontological and metaphysical features as universals (*jātis*), partial residence of properties (*pradeśavṛtti*), physical atoms (*paramāṇus*), perceiving Selves (*ātmans*), and, of course, substantial composite wholes (*avayavins*). This

makes sense because insofar as these ideas also involve troublesome implications of their own, speaking about them leads into vulnerabilities for himself. For example, Bhāsarvajña's own view of error, involving as it does an underlying ground truth that he claims is what really "appears" (*prativbhās*) even in the moment when we mistakenly believe ourselves to be apprehending something else, is particularly problematic on the non-representationalist view, as it is difficult to explain, e.g., what *causes* the post to take on the improper form of the man if not some subjective element. Thus, the easier option is to focus on waging a negative campaign against the opponent.

Doing Justice to Buddhist Sources

This leads us to the question of whether Bhāsarvajña does justice to his Buddhist opponents, who form the backdrop for so much of what he says in this debate. That is, like many authors in the genre, Bhāsarvajña acts as if he has utterly demolished his opponent. But are there actually Buddhists who say the things he attributes to them? And furthermore, whether or not the arguments derive from the few individual Buddhist thinkers we can still point to today, does Bhāsarvajña direct his attention toward their best versions and strongest aspects, or does he content himself with attacking straw men and trying to score debate points?⁶³⁴

I have already stated above that Bhāsarvajña draws the line at allowing for multiple levels of truth of different kinds, and whenever he can, he uses the apparent contradictions inherent in this meta-philosophical approach as a cudgel against his opponent. To this extent, then, we cannot expect fully thoughtful engagement with the Buddhist view, which relies heavily on this idea. That being said, it is still worth trying to evaluate how Bhāsarvajña interacts with his opponents, who as far as I can tell are a composite of real and imaginary voices.

In increasing order of the amount of material considered, Bhāsarvajña's main opponents are Vasubandhu, Dignāga, Dharmakīrti, and Prajñākaragupta. On the one hand, his quoting of the latter absolutely dwarfs that of all others combined. On the other hand, if we look closely, we see that Bhāsarvajña does not actually deal with the content of the PVA material in very much detail. Instead, his use of it seems rather instrumental and superficial.

Observe, for example that Bhāsarvajña is willing to dismiss complex and interesting arguments in PVA for relatively small reasons. There are two such at-length engagements in NBhū 104–154. One is the first long description (115,18–118,3, mostly but by no means all in Prajñākaragupta's words) of the Buddhist view of non-duality of wonderous variegation (*citrādvaita*). Along the way, Bhāsarvajña peppers the presentation with his own dismissive criticisms: that non-dualism is simply an unacceptable conclusion from an orthodox Nyāya

⁶³⁴ Madhav Deshpande (1992) rightly issues a diagnosis of "game syndrome" for the outsized role rhetorical strategy seems to play in philosophical writings of ancient South Asia:

The debaters are there to win the debate at whatever the cost. Thus, the direction of the argumentation is not always what one might call philosophical, but it is disputational, and all kinds of tricks of debate are used in the course of arguing against one's opponent. The Nyāya-sutras openly discuss these different modes of debate, and not all of them are directed at arriving at the truth. The goal is to win. Therefore, in reading these presentations one needs to be aware of such devices. (83)

perspective (116,7ff.), and thereafter, that it is basically no different from other non-dualisms like Vedāntic *brahmādvaita*, since the latter also arrives at similar-sounding conclusions of oneness (116,10ff.) and makes its points by means of positive (conventional) and negative (ultimate) statements (118,5ff.).

His second major engagement with PVA material is the discussion concerning the validity of the Vedas (*vedaprāmāṇya*) and what this means for the Buddhist's instrumental use of conventional truths, understood as lesser truths, for the sake of inference (NBhū 145,22–147,5). In this case, Bhāsarvajña barely even tries to counter the given details of argument, instead simply stating his own view on which general and specific properties (*sāmānya*, *viśeṣadharma*) — for example the widely-accepted general character of the Vedas and the specific possibility that they are means of valid knowledge (*pramāṇa*) — are entities that are distinct (*vyatirikta*) from their ontological property-possessor (*dharmin*), namely the Vedas themselves. That being the case, he says, there is simply “no scope” (*anavakāśa*) for the Buddhist view. Yet at this point, he does not actually argue for his own view, instead referring the reader to later in his book when he will ostensibly do so.⁶³⁵

In short, one does not get the feeling that Bhāsarvajña sees much of value in the Prajñākarian approach. Instead of scrutinizing the particular arguments Prajñākara presents to arrive at his counter-intuitive conclusions, Bhāsarvajña simply seizes on the conclusions themselves and endeavors to show how they fail to cohere with a larger picture that includes everyday experience.⁶³⁶ As for his relatively in-depth response to the Buddhist argument against object support (*ālambana*) on the basis of dreams, Bhāsarvajña's strategy seems to be basically that of Kumārila, namely, to show that dreams can in fact be distinguished from waking cognition. When combined with his principle of not arbitrarily discriminating between views when explanatory power is equal, especially against such an intuitive *prima facie* view as that external objects exist, this leaves the explanation according to external objects well ahead of the internalist critique.

By contrast, Bhāsarvajña's treatment of material from Vasubandhu, Dignāga, and especially Dharmakīrti is more detailed, sustained, and serious. He still uses a divide-and-conquer, i.e. dilemma-based strategy, showing unacceptable consequences for all options and thus declaring the assumed framework to be the problem. But in particular, Bhāsarvajña's use of Dignāga's principle about inference-for-another (*parārthānumāna*) requiring common acceptance of premises seems especially insightful and relevant. That is, if one wanted to be consistent with this principle, and absent further assumptions about multiple truths and so on, it would seem that one could not engage in *prasaṅga*-type argumentation using premises only one's opponent subscribes to. In other words, while it is perfectly accepted that any debate participant must use such destructive argumentation (*vitaṇḍā*, in Nyāya terms) from time to time, it should be on the basis of shared common ground. If, on the other hand, the Buddhist dialectician claims in Nāgārjunian fashion not to subscribe to *any* conventionally-minded doctrines (such as the real existence of pots and cloths), then it seems that the person is expressing lack of faith in philosophical debate to find positive answers. In modern terms, they are being a bit of a troll. Perhaps such a person is able to

⁶³⁵ For where this later part of the NBhū could be, cp. footnote 562 in the translation.

⁶³⁶ See Franco (1987a) for a similar treatment by Bhāsarvajña of Jayarāsi's skeptical view concerning truth and error.

cultivate an effective internal intellectual practice for their own sake, but across an ideological divide, dialogue effectively becomes impossible.

Similarly, Bhāsarvajña is strong in his take on Dharmakīrti's argument for the self-awareness (*svasaṃvedana*) of cognition on the basis that practical behavior (*vyavahāra*) could not be possible otherwise. He namely asks the very good question of what Dharmakīrti means by the ambiguous word *pravśidh* in his claim that “for one whose cognition of an object is not itself directly perceived, object awareness is not established (*na prasidhyati*)”, for it is on this claim that the subsequent claim about practical behavior rests. And when it comes to Vasubandhu's critique of the idea of the partless atom, Bhāsarvajña can simply fight back against the particular mereological arguments, affirming his own conviction that the realist picture explains enough. But again, he does so in detail, arguing that atoms are necessary to avoid even stranger consequences.

Overall then, Bhāsarvajña is faced with a composite opponent who wants to deny the existence of external objects as we know them, namely as the composite wholes they appear to be. There are two main strategies for this: one ontological, arguing that the account in terms of atomic building blocks is flawed, and the other epistemological, arguing that we have no secure basis for upholding our impression of difference. Against these, Bhāsarvajña chooses a few key weapons to use over and over again to show that such conclusions cannot be right.

Against the ontological argument, Bhāsarvajña has several points to stress about his preferred realist view which the opponent seems to have overlooked. On the one hand, the concept of partial residence of properties (*pradeśavṛtti*) can help explain how parts and wholes can be perceived to have contradictory properties. So too can real universals (*jāti*) and the way they inhere (*samavavī*) in such entities as a quality (*guṇa*) like color (*rūpa*) help account for real complexity (e.g., *citratā*) even in unitary entities (e.g., a cloth). Although one might like him to do, Bhāsarvajña does not here entertain any doubt about universals or other basic categories.

On the other hand, he does entertain the Buddhist's internalist and non-dualist account of complexity (i.e., *citrādvaita*), but he does so only long enough to deploy two of his chosen traps: 1) that if cognition is self-aware, it is exclusively so, and then it would be impossible to think about thought in general terms; and 2) if the appearance of difference is not due to some ultimately external reality, then the concept of error could have no plausible basis, and the argument that the appearance of difference is error would be self-defeating.

In fact, this already provides a segue to the epistemological arguments. Bhāsarvajña finds Dharmakīrti's arguments from behavior (*vyavahāra*) and from co-apprehension (*sahopalambhaniyama*) he finds to be tautological or self-defeating, respectively, on the one hand citing as evidence something that amounts to the same as the claim being made, and on the other using an observation of difference (acknowledged with the word “together” or with the mention of two things) as a condition for reaching a directly opposite conclusion of non-difference. The latter strategy is then used a second time against Prajñākaragupta's argument that waking cognition cannot be differentiated from dream in the sense of having external object support, itself a response to Kumārila's portrayal of the

dream argument. All the while, we see repeated use of the two favorite traps mentioned above.

In short, Bhāsarvajña seeks to inflict a “death by a thousand cuts”, issuing literally hundreds of individual small arguments over the course of these pages. The main driver of his view, however, is his conviction in the general plausibility of everyday knowledge. Only very rarely need such everyday knowledge be overturned by philosophy; in most cases, a refinement is all that is necessary. On the other hand, Bhāsarvajña has no use for multiple truths. Truth is truth for him, although sometimes we may not be able to know it as such. As such, the overall Dharmakīrtian project seems lost on him. All of its paradoxes simply seem like low-hanging fruit for him to pick and hurl in the Buddhist's face as contradiction. This is mostly in line with the literary genre, which is combative by nature. In that light, while there may be reason for us to admire Bhāsarvajña as a kind of freethinker relative to his own time, we must still judge him by our own standards today to have been part of a fundamentally dogmatic intellectual enterprise.⁶³⁷

⁶³⁷ Franco (1987a, 27) gently reminds of this dogmatic character while nevertheless giving Bhāsarvajña great respect for being an interesting thinker in his own right.

Part II: Distant Reading with Digital Humanities

Here in the second half of this study, I describe a different approach to understanding the same NBhū passage. Namely, instead of reading closely from the micro-level outward, here I work in the other direction, from the macro-level inward, establishing a context of intertextual links to relevant philosophical interlocutors with the help of a novel computational system developed for this purpose. This computationally derived macro-perspective is undoubtedly a form of “distant reading”⁶³⁸, which I advance here as valuable for being able to complement and serve the humanist’s traditional close reading exemplified in Part I.

The intertextuality detection system, called **Vātāyana**, centers on a newly curated corpus of electronic Sanskrit texts, called **Pramāṇa NLP**, and it is powered by a combination of several well-known techniques in natural language processing, namely, vector space modeling, topic modeling, weighted term frequencies, and text alignment. This combination allows it to perform impressively well on a range of intertextuality phenomena including not only verbatim parallels (e.g., quotation) but also non-verbatim parallels (e.g., paraphrase). In particular, its specialty appears to be mid- to longer-sized, less exact parallels in prose works. This makes it a handy complement to manual multi-text string searching, which is already deeply entrenched in private practice, and which is most effective precisely in the opposite domain of shorter, more exact phrases or even single words or parts thereof.

5 Background in Intertextuality Detection

Sanskrit literature is deeply intertextual, in the sense that texts constantly allude to each other, both directly, through verbatim quotation, and indirectly, through various types of paraphrase and reformulation. As such, even for someone fluent in both the language and the genre-specific idiom, a given text often cannot be understood without knowledge of the intertextual context in which it is located. Sometimes the traditional hermeneutical framework of base-text and commentary leads relatively quickly to original contexts and/or explanatory discussions, but not always.

For this reason, in addition to simply reading as widely as time and energy permit, it is standard procedure nowadays for students and scholars of Sanskrit to regularly scour electronic text corpora in search of related text passages that can help illuminate the meaning of what they are reading. Typically, one simply uses a software tool with the ability to search the machine-readable text within many files. However, when searching in this way, the Sanskrit query string must be formulated carefully, with sensitivity to the relevant linguistic phenomena (especially inflectional morphology, compounding, and sandhi) that threaten to introduce certain surface-form variations which, although often not of philological significance, can nevertheless effectively impede the search process. That is, except in a few special cases, Sanskrit text search is currently most usually carried out with virtually no computer-assisted linguistic analysis. Instead, the user is expected to deftly

⁶³⁸ This somewhat controversial concept is generally attributed to literary critic Franco Moretti, e.g., in his 2000 article “Conjectures on World Literature” and continued in his book of essays “La Letteratura Vista Da Lontano” (2005, English translation “Distant Reading” 2013).

sidestep relevant linguistic obstacles, accept a certain upper limit of performance in the search process, and hope for the best. Years of experience with this process gradually yield better results, but only somewhat.

Indeed, full-text natural-language search is a complex task in the computer science subfield of information retrieval, and leaving it up to individual users to implement on their own has several obvious drawbacks. First, computational skills and interest are very unevenly distributed among students and scholars of Sanskrit, many of whom may never come to feel at home with even basic regular expressions (abbreviated: “regexes”). Furthermore, textual resources themselves vary widely in their formatting (e.g., file type, file encoding, transliteration scheme, incorporation of metadata), in their quality (e.g., rate of typographical errors), and in their availability, with many texts being available only on the basis of private, word-of-mouth acquaintance. Thus, for all but the most experienced, dedicated, computer-literate, and well-connected users of the language, even such rudimentary manual text searching can be practically out of reach. Moreover, even the more savvy user, if they have experienced feature-rich full-text search for other language material at a relatively advanced state of development (e.g., Ancient Greek, Classical Latin, Classical Chinese, to say nothing of modern-language web search engines), will know that even the best-arranged manual search system for Sanskrit remains at a severe handicap relative to what might be.

In a few specific cases, detailed below, some steps have been taken to standardize Sanskrit text resources and/or automate more powerful search. Nevertheless, the idiosyncratic manual procedure described above is at present still the most common technique for many if not most Sanskrit subfields, including that of epistemology and metaphysics. Thus, there is certainly still a need for practical innovation in the creation of computational tools that can help one to study, e.g., the reception history of Vātsyāyana, Dharmakīrti, and other authors and texts that comprise *pramāṇaśāstra*.

5.1 Sanskrit Projects

SARIT (Search And Retrieval of Indic Texts), guided since the 1980s and 90s by visions of comparable projects in Greek and Latin (specifically, **Perseus** and the **Thesaurus Linguae Graecae**) has gradually worked toward providing flexible full-text search for key Sanskrit collections in *pramāṇaśāstra*, *alampkāraśāstra*, and epic literature. In recent years, especially, it has made admirable progress in digitizing a substantial amount of text, along with detailed metadata, and it has contributed to the further development of TEI-XML standards for Sanskrit. However, the project's main computational sophistication seems to lie in its use of Apache Lucene to index its corpus and extend search options with specialized query syntax, e.g., Boolean expressions like “AND” and “OR”, and tilde (~) for both proximity search and limited fuzzy search.⁶³⁹ That is, it uses virtually no analysis to overcome the language-specific barriers outlined above. As a result, while its interface offers some new possibilities, its underlying search system continues to offer basically the same search power as regular expressions, but with a scope limited to SARIT's own relatively small corpus of carefully prepared TEI texts, whose detailed encoding standard poses a high barrier for

⁶³⁹ See <https://sarit.indology.info/sarit-pm/docs/search-help-lucene.html>.

entry to most potential contributors. For this reason, despite its ambitious vision, SARIT has not significantly displaced the manual method described above.⁶⁴⁰

Similarly, the **Muktabodha**, **TITUS (Thesaurus Indogermanischer Text- und Sprachmaterialien)**, and **DSBC (Digital Sanskrit Buddhist Canon)** projects, focusing on Śaiva texts, texts of Indo-European interest, and Buddhist Sanskrit texts, respectively, also facilitate basic string searching of their collections, but they do not effectively penetrate beyond the linguistic surface. Meanwhile, **GRETIL (Göttingen Register of Electronic Texts in Indian Languages)**, despite being the largest and most-used academic text repository worldwide, due to its more permissive curatorial approach to corpus composition and formatting standards, does not offer any sort of search functionality whatsoever.

In contrast, the **DCS (Digital Corpus of Sanskrit)** of Oliver Hellwig achieves robust lemma-level search through comprehensive annotation of its entire corpus, including also inflectional and part-of-speech information. This corpus, consisting of approximately 250 texts, focuses on epic, alchemical, and Vedic texts, in line with the interests of the project author. In the two decades of the project's existence so far, it has remained difficult for other scholars to add text and annotation data in line with their own interests.⁶⁴¹ For this reason, the DCS is currently ill-suited for study of *pramāṇaśāstra* specifically.

Nevertheless, the DCS makes two major contributions of direct relevance to the present project. Using the comprehensive annotation data, achieved laboriously over decades with the help of a sophisticated model-based semi-automatic workflow,⁶⁴² Hellwig began the work of training neural-network tools to perform tasks like morphological annotation and word segmentation on *unseen Sanskrit data* at accuracy rates of up to 90% or more.⁶⁴³ For the first time,⁶⁴⁴ this opens the door to working with virtually unlimited amounts of new Sanskrit data at the level of individual words. What's more, also using the same corpus annotation data, Hellwig demonstrated a tentative first attempt at operationalizing parallel passage search in Sanskrit. The algorithm involves pairwise comparison of sentences

⁶⁴⁰ This simple comparative conclusion was a clear consensus opinion expressed during a workshop convened by the maintainers of SARIT in Vienna in May of 2017 ("The Future of Digital Texts in South Asian Studies — A SARIT Workshop") to discuss the project's progress.

⁶⁴¹ This may be finally changing. As of Feb. 12, 2021 (personal communication with Dr. Hellwig), a collaborative annotation interface for the DCS was actively being developed and was "in beta", thanks to a collaboration between Dr. Hellwig and Prof. Kyoko Amano of Kyoto University.

⁶⁴² This involved multiple novel software components, including the groundbreaking development of SanskritOCR for initial data collection, a custom digital version of the Monier-Williams lexicon, and the powerful SanskritTagger annotation interface. See e.g. Hellwig's (2002) dissertation, specifically "Problemstellung und Einführung" (4).

⁶⁴³ See Hellwig 2015, 2016a, and 2016b.

⁶⁴⁴ A comparable attempt was made to turn the semi-automatic segmentation function of Gerard Huet's Heritage Reader Companion into such an automatic segmenter (see Krishna, Satuluri, and Goyal 2017), but it does not seem to have caught on. There is also the project by the Buddhist Translators Workbench (Lugli 2015) which claims to have achieved successful word-segmentation (the R code is available online), but no interface exists, and the simple n-gram-based solution to the complex sandhi-morphology problem is not expected to perform well outside of Buddhist Sanskrit; see also the recent talk by Lugli (2021).

according to common lexical units, which comparisons are then aggregated into an undirected graph with weighted edges and assessed with the PageRank algorithm.⁶⁴⁵

Indeed, with relatively reliable access to individual words, many new options become available. In particular, the DCS-powered **Sanskrit Sandhi and Compound Splitter**, a joint project by Oliver Hellwig and Sebastian Nehrdich involving convolutional and recurrent neural networks, offers a simple text-in, text-out interface for fast and excellent (albeit still imperfect) word-segmentation results.⁶⁴⁶ Notably, on the basis of this tool, Nehrdich could include all GRETIL Sanskrit data and, more recently, also the full DSBC — along with Chinese, Tibetan, and Pali data, for which the corresponding word segmentation problems are addressed in different ways — in the new **BuddhaNexus** project.⁶⁴⁷ This project uses neural net-derived word embeddings⁶⁴⁸ (and composites thereof at the sentence level) to identify intertextual parallels with excellent tolerance for non-verbatim variation. So far, this project emphasizes data quantity rather than quality, making little effort to enforce content or structure standards. Even so, it contains only that small fraction of relevant *pramāṇaśāstra* literature that was available on GRETIL and DSBC. Moreover, its relatively brute-force approach, requiring massive amounts of computing power, makes it difficult for others to experiment with in real-time, and its data and code do not yet seem to be openly shared. It therefore cannot yet be used to augment study of, say, the Nyāyabhūṣaṇa specifically. That said, the project is absolutely a first-class achievement, and its interface is wonderfully useable.

There is, of course, also the option of sidestepping the need for analysis into individual words entirely by relying instead on what is already available at the surface level, namely, n-grams, whether of individual (e.g., IAST) characters or e.g. whitespace-separated chunks. And indeed, the recent **DCVW (Digital Corpus of Vidyānandin's Works)** project by Himal Trikha pursues just such a strategy, looking for n-grams of whitespace-separated chunks of Sanskrit text exceeding a certain character-similarity threshold value, allowing for a certain degree of inexact (or “fuzzy”) matching. The website for this project gives admirably flexible access to multiple transformations of the well-structured TEI data, but the search algorithm unfortunately takes an inordinate amount of time to run (e.g., reportedly around 20–30 minutes for a single query), rendering it unusable as of yet.⁶⁴⁹ In this same vein, also worth

⁶⁴⁵ This algorithm is described in Hellwig 2013, and the results are available for browsing on the DCS website under “Parallels”.

⁶⁴⁶ See Hellwig and Nehrdich 2018, along with associated code at:

<https://github.com/OliverHellwig/sanskrit/tree/master/papers/2018emnlp>.

⁶⁴⁷ This project has its geographical home at the University of Hamburg and is a collaboration between Dr. Orna Almogi, Sebastian Nehrdich (PhD candidate), and Prof. Dr. Dorji Wangchuk. It developed in parallel over the same time period as the project being presented here (Vātāyana), and it comes closest to anticipating the same needs, suggesting a kind of convergent evolution at work in the field of Sanskrit Digital Humanities. According to a personal communication with Nehrdich in February 2021, the Sanskrit functionality in BuddhaNexus is the continuation of the “gretil-quotations” project, which does its fastText training and similarity calculation on the basis of data output from the Sanskrit Sandhi and Compound Splitter rather than on data output from the morphological stemmer featured on the project website (<https://buddhanexus.net/sanskrit-tools>, accessed Oct 30, 2021). The latter relies instead on fine-tuning of the “XLM” cross-lingual language model, on which, see Lample and Conneau 2019.

⁶⁴⁸ Specifically, fastText word embeddings, on which, see Bojanowski et al. 2017.

⁶⁴⁹ See <http://dipal.org/cgi-bin/dipal.cgi?nav=1&subnav=14> (Biobibliography of Digambara Philosophers, “Project Description”, accessed through Archive.org Wayback Machine capture of Dec. 25, 2021:

mentioning is the work of Prasad and Rao (2010), which used the Smith-Waterman-Gotoh alignment algorithm to detect inexact text reuse in Sanskrit.⁶⁵⁰ For this latter project, however, neither code nor a working prototype is to be found online. Such surface-level, string-based approaches as these should indeed be explored further for their practical utility, perhaps in combination with analytic word-based techniques. However, it is because word-based techniques so much more readily lend themselves to intuitive understanding and meaningful interpretation that I choose to focus on them here.

To sum up, for years, the Sanskrit language's inherent morphological and orthographic complexity has almost completely prevented researchers from taking advantage of the NLP methods requiring individual words — and perhaps also additional high-quality linguistic resources like synonym lists or semantic wordnets which can be derived from such basic word data — that have proven so effective at powering search techniques for material in other languages. Now, however, as it is becoming more and more possible to work with Sanskrit material at the word-level, it is time for Sanskrit to catch up and start reaping the benefits of what has been learned elsewhere. In the following, I highlight a few key non-Sanskrit projects, in order to ensure that relevant pre-existing tools and techniques are not neglected in this discussion, and to clarify some methodological patterns.⁶⁵¹

5.2 Non-Sanskrit Projects

The well-known **Perseus** and **TLG (Thesaurus Linguae Graecae)** projects allow for search of single terms or collocations thereof, also with control for morphology (as does the Sanskrit **DCS** “Query” function to a great extent). However, neither project goes beyond this to pursue more complex intertextuality detection in their official releases. On the other hand, already in 2008, Greg Crane, director of the Perseus project and its successor, **OGL (Open Greek and Latin)**, published, along with David Bamman, a research paper on detecting “textual allusion” in Classical Latin. In it, they tested out using inflected tokens, lemma annotation, part-of-speech tags, word-order information, and dependency-tree syntax structure to produce similarity candidates for queries consisting of individual sentences.⁶⁵² Preliminary results seemed promising, even if rigorous quantitative assessment was acknowledged to be not yet possible due to a lack of benchmark data — still a significant

<https://web.archive.org/web/20200807054634/http://dipal.org/cgi-bin/dipal.cgi?nav=1&subnav=14>). Time estimates are according to a personal communication with Trikha, June 7, 2021. No article or other official publication associated with this project seems to exist yet.

⁶⁵⁰ This project was limited to a single text: the *Mahābhāratatātparyanirṇaya* of Madhva, a relatively concise commentary on the famously large epic. As explained by Nehrdich (2020), in order to reduce complexity for even this limited amount of data, the project started by sorting “sentences” (actually verse-halves) by their starting characters (136), assuming that only such units with similar beginnings needed to be compared.

⁶⁵¹ Leipzig University proved to be an excellent place for me to think and work interdisciplinarily on this project while I served as PhD research assistant for the Digital Critical Edition of the *Nyāyabhāṣya* project. The Alexander von Humboldt Chair for Digital Humanities at Leipzig University, held during those years by Greg Crane (who also maintained his professorship at Tufts), brought digital humanists of all sorts into conversation with each other and with more experienced computer scientists. This especially included scholars from Leipzig, Halle, Göttingen, Berlin/Düsseldorf (specifically Dr. Hellwig), Leiden, and Vienna. Meanwhile, the Digital Critical Edition of the *Nyāyabhāṣya* project in which I was employed had its roots in Vienna. The likely result is that my personal perspective exhibits a bias toward the work produced in these particular academic communities.

⁶⁵² The exact algorithm is unclear to me. See Bamman and Crane 2008, §§4–5.

problem for most such projects in the digital humanities even today. Accordingly, the effort was also quickly expanded to discovering multilingual text reuse across the Greek-Latin language barrier. However, no implementation of these search algorithms seems to have become available for general use.

On the other hand, in 2012, Neil Coffee et al. released and published on **Tesserae**,⁶⁵³ which is still usable online today and undergoing continued development. This exemplary tool, initially focused on Latin but later expanded to Greek, similarly compares inflected tokens and abstracted lemmata, both within shorter windows of e.g. six words and on the more inclusive level of entire sentences, but without attention to word-order, syntax, or part-of-speech. The approach is thus relatively simple, but nevertheless, its results are quite good, apparently replicating many of the findings of scholarly commentators and sometimes going beyond them.⁶⁵⁴ Its excellent online interface is also a model of user-friendliness.⁶⁵⁵ Sanskrit cross-pollination with this project could be particularly desirable.

In the same vein as these projects, but of considerably more ambitious scope, the **passim** software for text-reuse analysis, developed by David Smith et al. as part of the **Viral Texts** project on huge numbers of early modern English newspapers, combines brute-force comparison of (non-stopword) surface-level forms with clever use of automatic text alignment. Namely, it first generates preliminary similarity-candidate pairs from the very large set of possible newspaper passages on the basis of skip-grams of length 4. It then ranks these pairs by the length of their best matching subsequence using Smith-Waterman local alignment. Finally, a clustering algorithm is applied to find related subgroups among the results, which lends itself well to visualization and further study of how such texts propagated across time and space.⁶⁵⁶ The main downside of this otherwise magnificent approach is its relatively heavy computational footprint, requiring specialized hardware and/or a dedicated computing cluster. Interestingly, this same powerful software is also being applied to a very large number of Arabic texts in the also ambitious **KITAB** project (**Knowledge, Information Technology, and the Arabic Book**), led by Sarah Bowen Savant.

Again in the realm of modern language, Martin Potthast's prolific research into text- and language reuse includes co-development of **Picapica**, a search engine for plagiarism detection (part of the field of "digital text forensics") that helps identify web-based textual sources for a given composition and thereby also potential violations of academic citation norms. Similar to **passim**, this ambitious project seems to use a three-stage approach, first using less-detailed kinds of comparison (namely, highly abstractive hashing) to winnow out least likely candidates, then subjecting remaining candidates to gradually more detailed comparisons, and finally, visualizing results for user interpretation. In this way, even gargantuan amounts of text (e.g., a cache of the entire world wide web) can be analyzed in a reasonable amount of time. Among Picapica's system components, attention seems to be paid not only to content (e.g., n-grams of heuristically stemmed word tokens) and instances

⁶⁵³ See Coffee et al. 2012.

⁶⁵⁴ Figure 1 of the paper shows that historical commentators identified 172 parallels (of the particular classification types 4 and 5) compared to 46 identified by Tesserae, with an overlap of 47 shared cases. For similar evaluation of Vātāyana's performance, see §8.2 below.

⁶⁵⁵ See <https://tesserae.caset.buffalo.edu>.

⁶⁵⁶ See Smith et al. 2014.

of reuse thereof (e.g., direct or paraphrased citations), but also structure (e.g., *order* of citations) and style (as determined by stylometric consideration of such features as stopwords).⁶⁵⁷ Similarly, Bär et al. (2015), while focused more on paraphrase detection than on plagiarism detection, describes an approach to computing text similarity that takes into account these same three feature types (content, structure, style) by considering a large number of specific features of each type and ultimately training a linear regression classifier that combines all features (over 300 in total) into a predicted similarity value in the range of 0 (least similar) to 5 (most similar).⁶⁵⁸

Back in the realm of historical languages, the research group surrounding Halle University professor Gerhard Heyer produced a well-regarded series of BMBF-funded projects featuring tools for detecting text reuse in pre-modern texts.⁶⁵⁹ Participants in the early eAQUA project (**Extraktion von strukturiertem Wissen aus Antiken Quellen für die Altertumswissenschaft**, 2008–2013) included Charlotte Schubert, Marcus Pöckelmann, Annette Geßner, and Marco Büchler. This project website still exists and contains an early implementation of a citation search function for Ancient Greek and Latin based on word 5-grams and Levenshtein edit distance.⁶⁶⁰ In turn, this phase of work gradually gave rise to several other projects by individual project members.⁶⁶¹ In particular, the tool at **paraphrasis.org**, developed by Schubert and Pöckelmann, implements paraphrase search in Ancient Greek by way of word2vec word embeddings compared for similarity with Word Mover's Distance. This approach (similar to that of the **BuddhaNexus** project for Sanskrit) is said to produce good results for the data on paraphrasis.org, but there is some concern about the practicalities of scaling the approach for larger corpora.⁶⁶²

On the other hand, Büchler continued the eAQUA project in a somewhat different direction with the successor project eTRAP (**Electronic Text Reuse Acquisition Project**, 2015–2019), apparently resolving in favor of the greater system complexity typical of successful modern search engines, leading to the tool **TRACER**. This tool is stated to actually be a “framework

⁶⁵⁷ The exact method employed does not seem to be available for inspection, perhaps in part because the Picapica search engine is marketed for commercial use. However, based on an in-person demonstration of the tool (2017 Leipzig Global Philology Week), I believe the general approach can be gleaned from Potthast's 2012 dissertation, specifically, chapters 1 and 2.

⁶⁵⁸ See Bär, Zesch, and Gurevych 2015.

⁶⁵⁹ See Bedenbender 2018, p. 94, in section “2.5.3 Projekte und Programme”, part of “2.5 Erforschung von Text Reuse”, for a similar narrative account.

⁶⁶⁰ The only place I've found these components of the citation analysis described is online at <http://www.eaqua.net>, specifically in the part of the website found by clicking first on “Documentation”, then on “eAQUA Wissensdatenbank”, then on “Zitations-Analyse” (accessed Dec. 13, 2021). Further papers presenting example studies using this and other technology developed as part of the eAQUA project can be found in the “Working Papers Contested Order / eAQUA Working Papers” series at <https://journals.ub.uni-heidelberg.de/index.php/eaqua-wp/index>. See, e.g., in no. 1 (2010), “Das Portal eAQUA – Neue Methoden in der geisteswissenschaftlichen Forschung I” (4–9) and “Zitationsprofile, Suchstrategien und Forschungsrichtungen” (42–55) by Charlotte Schubert, as well as “Das automatische Auffinden der indirekten Überlieferung des Platonischen Timaios und die Bedeutung des Tools „CitationGraph“ für die Forschung” (26–41) by Annette Geßner.

⁶⁶¹ In addition to the two discussed here, another that should be mentioned is **GERTRUDE (Göttingen E-Research Text Re-Use in Digital Editions)**, produced by Annette Geßner in the project eTRACES (2011–2014). It focused on German literature from 1500 to 1900, is said to have relied on another tool called “Medusa” to calculate similarity via n-grams and string similarity, and no longer seems to exist online.

⁶⁶² See Pöckelmann et al. 2017.

of roughly 700 algorithms”, implemented and coordinated in an apparently hard-to-explain way.⁶⁶³ Also, while said to have been used on a number of modern and historical languages,⁶⁶⁴ the tool’s documentation clarifies that “[i]n order to detect text reuse, TRACER also requires linguistic information pertaining to the language” being examined, namely in the form of a list of all lemmata occurring in one’s corpus, along with morphology and part-of-speech information for each token, as well as a list encapsulating semantic information, e.g., a thesaurus/synonym file or a WordNet.⁶⁶⁵ The barrier for entry thus seems prohibitively high for a low-resource language like Sanskrit. In any case, eTRAP is likely the most prolific single project in the area of historical text reuse detection, and besides its own sizeable publication list, it has also produced a wonderful Zotero bibliography on the subject.⁶⁶⁶

It is also worth mentioning the significant efforts made in the area of Classical Chinese, even if the linguistic issues involved there are rather different due to the ideographic rather than alphabetic writing system. Above all, there is Donald Sturgeon’s well-known **Chinese Text Project** (ctext.org), which focuses on pre-Qin and Han literature. For its parallel passages feature, similarity candidates are first generated based on string sequences of 4+ identical (normalized) characters, and then they are subjected to a finer-grained analysis involving term and document frequency.⁶⁶⁷ Vierthaler (2019), taking issue with some context-specific and/or labor-intensive aspects of Sturgeon’s method, resorts to a procedure “with significant homologies to Smith, et. al.’s approach” within the **passim** project, namely, relying on n-grams and local alignment.⁶⁶⁸ This procedure, however, thus relies significantly on brute-force, e.g., requiring special hardware in the form of an industry-grade GPU.⁶⁶⁹ It also should be noted here that, for similarity comparison of Chinese text, edit distance (e.g., Levenshtein) is not substantially impeded by complex surface morphology as it is in the case of Sanskrit. Nevertheless, seeing still further room for improvement, Nehrdich, again to the benefit of the multi-lingual **BuddhaNexus** project, instead utilizes fastText word embeddings, approximate nearest neighbor search, and local alignment for achieving the same feat in Chinese. Results for the latter can be browsed online.⁶⁷⁰

⁶⁶³ The system overview in the online manual (at <https://gfranzini.gitbooks.io/tracer/content/manual/introduction/tracer-overview.html>) defers explanation of the algorithms to “TRACER’s Javadoc”, but this does not seem to be available for consultation. Other publications such as Büchler et al. 2014a and Büchler et al. 2014b can perhaps shed more light.

⁶⁶⁴ These languages apparently include “Ancient Greek, Arabic, Coptic, English, German, Hebrew, Latin and Tibetan”; see <https://www.etrab.eu/research/tracer/>.

⁶⁶⁵ See <https://gfranzini.gitbooks.io/tracer/content/manual/pos-tagging-lemmatisation-and-wordnets.html>.

⁶⁶⁶ See <https://www.etrab.eu/academic-output/> and https://www.zotero.org/groups/500373/historical-text_reuse, respectively. I have barely begun to scratch the surface of these.

⁶⁶⁷ See Sturgeon 2018.

⁶⁶⁸ See Vierthaler and Gelein 2019, especially p. 4, and cp. footnote 656 above on the “passim” project.

⁶⁶⁹ For example, the author explained at a July 11th, 2017 presentation (Leipzig Global Philology Week) that this research was carried out on the basis of NVIDIA TitanX GPU obtained through a grant program of that company. Code is available for the project at <https://github.com/vierth/chinesetextreuse>, but no user interface is provided.

⁶⁷⁰ See Nehrdich 2020 and the associated interface at <https://buddhanexus.net/chn/neutral>, and cp. footnote 648 above on fastText.

Finally, alongside the development of neural-network techniques (e.g., both CNNs/RNNs and various word embeddings), topic modeling has also been steadily gaining in popularity and ease of use among scholars experimenting with digital humanities methods. This particular technique makes certain simplifying assumptions about language use, especially, in the model's simplest form, treating a corpus as if it were a collection of independent, bag-of-word documents, all of which have resulted from a generative process sampling over two layers of probability distributions: documents as distributions over topics, and topics as distributions over words.⁶⁷¹ This technique has not typically been used for intertextuality detection per se, but it has sometimes been used as a way of identifying “similar” documents within a corpus, as judged by topic composition. For example, the excellent and clear browser-based tool **jsLDA** by David Mimno, also associated with the well-known **MALLET** text mining package, suggests top documents for a given topic as a way of understanding the latter.⁶⁷²

For showing how topic modeling can lead to better understanding of the corpus documents themselves, however, it is in particular **Metallō**, by Thomas Köntges, which I find provides the clearest proof of concept. This software namely provides a minimal graphical user interface to assist the user in issuing similarity queries for individual documents against a database of topic modeling theta-parameter output and then in visualizing the similarity results.⁶⁷³ This topic modeling data is specifically envisioned to have been produced by the same author's topic modeling quick-start toolkit, named **ToPān** (or more recently, **tidyToPān**), which relies on the R libraries “*lda*” and “*LDAvis*”.⁶⁷⁴ Several other more popular topic modeling toolkits also exist,⁶⁷⁵ but it was **ToPān** and **Metallō**, with their emphasis on historical languages, which proved to be especially influential on my own Sanskrit research.

As can be seen from the foregoing, there have already been numerous more-or-less successful attempts at automating detection of philologically interesting forms of intertextuality, and a survey of these attempts reveals some patterns. These include: 1) the necessity of either reducing complexity through initial dimensionality-reduction steps (e.g. hashings or embeddings) or computing everything ahead of time with brute force and managing saved results (or both); 2) a frequent tension between algorithmic transparency and performance; 3) challenges in establishing benchmarks for low-resource philological data (e.g., based on the findings of scholarly commentators) for the sake of effective standardized assessment of these projects; and 4) the struggle to win enough project buy-in (e.g. through open-source code and/or effective user-experience design) so as to avoid technological obsolescence.

⁶⁷¹ For an excellent introduction to the algorithmic details of topic modeling and how it applies to the study of the humanities, see the Journal of Digital Humanities, Vol. 2, No. 1, Winter 2012, especially the contributions by David Blei (2012) and Megan Brett.

⁶⁷² See <https://mimno.infosci.cornell.edu/jsLDA/> and <https://mimno.github.io/Mallet/index>, respectively.

⁶⁷³ See <https://github.com/ThomasK81/Metallō>, including the demo video.

⁶⁷⁴ For code, see <https://github.com/ThomasK81/ToPan> and, more recently, <https://github.com/ThomasK81/tidyToPan>. For example studies, see Köntges 2016 and 2018.

⁶⁷⁵ Besides Mimno et al.'s Mallet and Mimno's jsLDA, already mentioned, especially popular in the data science community are Radim Řehůřek's Gensim (see <https://radimrehurek.com/gensim/>), and Scikit-learn (see “sklearn.decomposition.LatentDirichletAllocation” on <https://scikit-learn.org>), both libraries for Python.

In sum, although there is some potential for incorporating *pramāṇaśāstra* data into pre-existing projects or reimplementing pre-existing solutions, no particular project seems to have so completely solved the problem of illuminating intertextuality in philosophical Sanskrit that further innovation cannot help. Still, a few final words of justification may still be in order, given the scope of the project undertaken here. For one, few Sanskrit digitization projects have properly anticipated rigorous computational treatment with NLP methods, and so, even putting aside the importance of algorithmic innovation and/or simply getting usable philological results, insofar as a new project improves and expands the stock of machine-actionable data, this is a benefit in itself. But even with good machine-actionable data, Sanskrit remains a low-resource language. In turn, computational research on such material does prompt the development of new and different methods and/or combinations thereof, and such diversity can be good even for computer science more generally. Furthermore, if different projects with different methods manage to arrive at similar results, researchers can use this fact to work on understanding which underlying linguistic and/or algorithmic factors are most important, thus making it possible to recombine and reconfigure system components in new and fruitful ways. And finally, it's often not possible to know whether a given academic project, even if successful, will remain usable in years to come. Hence, there should be little room left for doubt about the usefulness of a new, online, open-source project that improves corpus resources and combines known methods in novel ways to deliver practical results for studying intertextuality in Sanskrit philosophy.

5.3 Operationalizing Intertextuality

In order for computers to help us find instances of “intertextuality” that are philologically “interesting” or “meaningful”, we must first define and operationalize⁶⁷⁶ these concepts in usable ways. This will not only help clarify what it is we are seeking, but also make it possible to assess whether the computational system succeeds or not. To say nothing of the innumerable qualitative humanities studies of intertextuality,⁶⁷⁷ even the relatively small sampling of digital humanities projects mentioned above demonstrates how this definitional issue has already had to be addressed many times. And yet, no single definition of intertextuality is forthcoming. As a result, digital humanists still approach the question of detecting intertextuality in quite different ways. The way forward for now, then, is to simply decide on a usable definition for one's own project. With luck, it will then be possible later on to assess which such definitions lend themselves to meaningful analyses within and/or across various domains.

Here, I will focus on detecting **mid-sized quotation and paraphrase**. Generally speaking, intertextuality can include a wide range of phenomena, but it often especially includes quotation, paraphrase, and allusion. The latter is a very broad category, potentially involving

⁶⁷⁶ “Operationalization” involves the invention of a measurable proxy for an otherwise unmeasurable concept. The notion was developed by physicist Percy Bridgman in response to the counter-intuitive aspects in special relativity theory, namely the interrelation of space and time and associated implications for measuring such quantities.

⁶⁷⁷ For Sanskrit, note especially the numerous interesting contributions to Freschi and Maas 2017. See also Freschi's (2012) own case-based study on how Indian classical authors' originality often manifests as rearrangement of earlier texts. See also footnote 680 below.

not only semantic content (i.e., meaning) but also structure (morphological, syntactic, prosodic, etc.) and/or style.⁶⁷⁸ Where additional linguistic resources are available, such as with the full annotation of the DCS, one can attempt systematic study of morphology, syntax, and perhaps even more.⁶⁷⁹ But especially where such additional resources are lacking, these other aspects of intertextuality are more difficult to discover and measure with computers. On the other hand, quotation and paraphrase are relatively more straightforward, especially since semantics relations among attested word forms can to some extent be learned rather quickly from data itself, such that additional language-specific data requirements can be kept to a minimum. Since even this has not yet been conclusively addressed for Classical Sanskrit, this seems like a good starting point.

To further qualify this target, I turn to the work of Ernst Steinkellner and Himal Trikha. In an influential 1988 article, Steinkellner developed an influential notation system specifically for describing intertextual parallels in Sanskrit *pramāṇa* texts.⁶⁸⁰ This system will be more-or-less familiar to users of editions and other scholarship from this school. For example, the abbreviation “Ce” stands for *citatum ex alio*, i.e., an explicit quotation from another text, whereas “ Ce’ ” (with apostrophe) stands for *citatum ex alio usus secundarii*, i.e., an unmarked quotation from another text; on the other hand, “R” stands for *citatum in alio modo referendi*, i.e., a span of text referred to in a later work; and so on. Later, this system was expanded to include further aspects of intertextuality,⁶⁸¹ such as with the abbreviation “Cee” which stands for *citatum ex alio modo edendi*, used for quotations that are explicitly marked as such and yet show editorial changes (e.g. paraphrasing) on the part of the quoting author.

⁶⁷⁸ Scholarly literature on intertextuality is replete with examples of various such kinds of allusion. To take just a few, Bamman and Crane (2008) suggest how a speech by Martin Luther King Jr., by using the phrase structure “X score years ago”, can instantly evoke Abraham Lincoln’s already topically relevant Emancipation Proclamation, even without further quoting the text of that speech. Meanwhile, stylometric studies of, for example, the Shakespearean canon (of which there is no shortage) or that of Plato (e.g., Köntges 2018) show how a given authorial style can be fairly convincingly imitated with content words and yet belied by subtle patterns of function words. And similarly, regarding prosody in (Epic) Classical Sanskrit, Sven Sellmer (2017) has looked for “unusual” passages in the Mahābhārata through precise scrutiny of metrical structure, which can help to combat the inappropriate attribution of that massive work to a single author; such might also be considered as a study of stylistic or structural allusion in a still broader sense.

⁶⁷⁹ Consider e.g. Hellwig’s pre-neural-network studies (2010, 2013, 2015a). Similarly, Hellwig 2017 and 2019 show the potential benefits of including chronological information.

⁶⁸⁰ See Steinkellner 1988. Also, McAllister 2020 does an admirable job of summarizing this system and adapting it for the purpose of digitally encoding Sanskrit intertextuality in TEI. Further afield, for practical reflections on how to characterize intertextuality in the philology of Western Antiquity for digital search purposes, cp. footnote 654 above on the write-up of Tessarae.

⁶⁸¹ In Steinkellner’s and Lasic’s 2005 edition of Jinendrabuddhi’s *Pramāṇasamuccayaṭīkā Viśālāmalavatī*, Steinkellner reports on the evolution of the “gradually improved and adapted applications of these sigla” as having played out over the following publications (lii, n85):

- Steinkellner 1988, mentioned above
- Steinkellner/Krasser 1989 [sic?], “VI. A New Approach towards Improving the Textual Basis for an Understanding of Dignāga’s *Pramāṇasamuccayavṛtti*” and “VII. Another Note on *pramāṇabhūta*” in “Miszellen Zur Erkenntnistheoretisch Logischen Schule Des Buddhismus”, WZKS 33, pp. 177–181, which however upon inspection does not obviously contribute to this evolution
- Krasser 1991, “Dharmottaras kurze Untersuchung der Gültigkeit einer Erkenntnis: *Laghuprāmāṇyaparīkṣā*. Teil II: Übersetzung,” Wien: VÖAW, and
- Lasic 2000, “Jñānaśrīmitras Vyāpticarcā. Sanskrittext, Übersetzung, Analyse,” Wien: ATBS.

In 2012, Trikha further innovated upon this system.⁶⁸² He suggested that one could re-analyze Sanskrit *pramāṇaśāstra* intertextuality into four dimensions, the first three of which find ready parallels in the Steinkellner notation system. These are (in my own words): 1) degree of literal correspondence (e.g., with or without paraphrasing), 2) mode of demarcation (e.g., explicit attribution or lack thereof), 3) directionality of reference (e.g., neither of two texts with similar material directly quoting the other but rather each quoting a common third source), and 4) dialectical function of reference (e.g., invoking as support for one's argument or not). Most importantly for present purposes, however, Trikha further elaborated upon the first dimension, that of degree of literal correspondence, presenting it as a spectrum ranging from precise quotation (or verbatim text reuse) on one end to inexact paraphrase (or non-verbatim text reuse) on the other, with four symbols representing movement along this spectrum (see Fig. 2).

=	exact literal correspondence (besides orthography etc.)
~	nearly exact with variation (small variants, but same structure and order)
#	loose literal correspondence (any kind of paraphrase)
//	conceptual correspondence only (not necessarily any words in common)

Figure 2: Intertextuality coding system used in Trikha 2012 (interpretative translation mine)

For the remainder of my own study here, I basically adopt this same spectrum of literal correspondence from Trikha, but I tweak it slightly (see Fig. 3).

=	virtually exact (besides punctuation, orthography, and possibly editing)
≈	nearly exact, but with definite variation at word-level and/or in sentence structure
~	loose literal correspondence, with major variation and/or paraphrasing
÷	semantic/conceptual resonance only (i.e., few if any specific words in common)
@	tangential reference, by either abbreviation (e.g. with <i>ityādi</i>) or small phrase (1–3 words)

Figure 3: Intertextuality coding system used in this project

The first four categories I use differ very little from Trikha's. Mainly, I just opt for what I hope is a more easily remembered sequence of symbols. On the other hand, the separation of the fourth category away from the first three is significant and will be explained presently. Similarly, the new fifth category of “tangential reference” is necessary to add for the specific purpose of approaching intertextuality as a problem in computational detection. The reasoning is as follows. If the goal of an automatic intertextuality detection system were

⁶⁸² This innovation is found in Trikha's (2012) dissertation-turned-book, which features intra- and intertextual study of Vidyānandin's refutation of the Vaiśeṣika presentation of ontological properties (e.g. of the soul) as being characterized by exclusive difference (“ausschließlichen Differenz”, *bhedākānta*) rather than by the Jaina's preferred characterization by way of metaphysical non-exclusivity or non-one-sidedness (*anekāntavāda*). See especially Appendix C, “Kriterien für die Bewertung der Relation von Textbausteinen der Satyaśāsanaparīksā und ihren Vergleichsstellen in anderen Werken” (127–140).

to include noticing, for example, philologically significant use of a single word or a two- or three-word phrase, one would have to be careful to distinguish such meaningful cases (the “signal”) from the very large number of shared words and small phrases that are not philologically significant (the “noise”), lest the latter absolutely drown out the former and render the system useless. How to distinguish, for example, the reuse of the distinctive phrase “*kalpanāpoḍham*” from the less distinctive phrase “*tasyābhāvāt*”? In fact, there are ways to do this, such as by using inverse document frequency, but the more important point is this: There is a qualitative difference in how seldom larger phrases recur by chance, making longer phrases much lower-hanging fruit.⁶⁸³ Moreover, rather than report contiguous series of small shared phrases, it makes more sense to present maximally large parallels insofar as they can be identified as such through fuzzy matching methods. Thus, even if a small word or phrase like “*apoha*” or “*kalpanāpoḍham*” is exactly shared by two texts, this is not necessarily what we want to focus our system’s resources on finding. After all, this is precisely what the low-power, manual text-search methods already excel at.

For this reason, I focus here on the first three categories in the upper box of Fig. 3, indicated by the symbols =, ≈, and ~, which I group together as “mid-sized quotation and paraphrase”. These are the instances of textual interrelation that deploy recognizably the same argument and/or make the same point with roughly the same words, albeit perhaps with differences in grammatical construction or even diction — and with at least 4 words.⁶⁸⁴ It is hard to deny the appeal of being able to automatically track the finite number of such medium-long to long parallel passages moving in and out of verbatim correspondence in a given portion of text. On the other hand, while intertextual relations may indeed also consist in reuse of smaller sequences⁶⁸⁵ or in moments of conceptual resonance without recognizable runs of common phrasing, I put such cases aside for now. It should be noted that this does also include cases of longer quotations severely abridged with such phrases as “*ityādi*”.⁶⁸⁶ Such cases may of course be well worth a footnote in one’s work, for example, if doing so serves one’s specific scholarly purpose. For the above practical reasons, however, these will not be included in the focus of the current computational project.

As for a specific measure that can be used to discover these mid-sized quotations and paraphrases, there are a number of options. If operating at the surface string level, one popular choice, e.g., employed by Tesserae and by Trikha’s own DCVW, is to focus on shared n-grams, whether at the level of words or characters, perhaps as complemented by a string similarity measure like edit distance. Another such surface method, e.g., employed by *passim*, is to use something like n-grams to narrow in on likely candidates, but then to use local alignment as a final assessment, highlighting cases with longer best-matching sequences and associated alignment scores. On the other hand, if comparing text on a more abstract level, e.g., as paraphrasis.org and BuddhaNexus do with word embeddings, a vector similarity metric may have the final say.

⁶⁸³ Cp., e.g., the 4-gram limits in *passim* (Smith et al. 2014) and the Chinese Text Project (Sturgeon 2018).

⁶⁸⁴ Since Sanskrit words are on average about 7.5 IAST characters long, this amounts to a character cutoff of about 30. Compare BuddhaNexus’s similar 25-character overlap cutoff for reporting Sanskrit parallels (see description at <https://buddhanexus.net/skt/neutral>).

⁶⁸⁵ Cp., e.g., the 2-gram search in Tesserae (Coffee et al. 2012, 386–87) and 2- and 3-gram constraint in the work of Bamman and Crane (2008, 3–4).

⁶⁸⁶ Cp. footnote 724 below on the use of *pratīka* citations in Vedic literature.

Here, I choose the well-established method of **Smith-Waterman local alignment** as the main means of operationalizing my mid-sized intertextuality targets. Good explanations of this algorithm abound elsewhere, so I focus in the following on its practical function in this particular use case. Given two textual passages which are not expected to correspond throughout, Smith-Waterman alignment not only finds the best matching textual subsequences between them but also returns a numerical score that quantifies the correspondence of this subsequence, taking into account not only best-match length but also its quality. The exact numerical value of this score depends on the particular implementation of the algorithm and especially on component match and mismatch scores. Here I use the simplest version of the algorithm,⁶⁸⁷ assessed ultimately on the character level,⁶⁸⁸ with the following scores: match = 1.0, mismatch = -0.8, and gap = -0.8.⁶⁸⁹ This leads to the following kinds of scores, interpreted according to my experience so far: 0 means absolutely no match, 0–20 means some overlap but probably nothing significant, 20–50 indicates overlap that is quite possibly significant, and 50+ fairly reliably indicates some sort of philologically interesting intertextual parallel. One easy way to understand this is to see the score as very roughly translating to the number of overlapping characters after difference penalties.

For example, for the following two Sanskrit passages (NBhū 126,1–5 and ŠV 5.4.251–253, after automatic cleaning and word splitting), the basic Smith-Waterman algorithm with above score settings determines the underlined portions to be the best overlap.

ekasya eva jñānasya tādrś tva bhāvah̄ ced
avayavinaḥ api tarhi tathābhūtaḥ svabhāvah̄
samāna yogakṣema tvāt na paryanuyojyāḥ
yah̄ ca ubhayoh̄ samah̄ doṣah̄ parihārah̄ ca
tad samah̄ na ekaḥ paryanuyojyāḥ syāt tādrś
artha vicāraṇe

artha ārambha vyavasthā ced sāmarthyā
niyama āśrayā jñāna ārambha vyavasthāyām
sāmarthyam kena vāryate tasmāt yatra
ubhayoh̄ doṣah̄ parihārah̄ api vā samah̄ na
ekaḥ paryanuyoktavyāḥ tādrś artha vicāraṇe
deśa kāla nimittāni vyañjakāni artha vādinaḥ
śaktinām kāraṇa sthānām sva kārya
niyamam prati

The associated numerical Smith-Waterman score is quite high at 60.4, which helps signal something worth further investigation. In fact, this turns out to be a clear case of quotation

⁶⁸⁷ Compare e.g. the use of Gotoh's modification of the Smith-Waterman algorithm by Prasad and Rao (2010).

⁶⁸⁸ For efficiency reasons, character-level Smith-Waterman alignment is not actually applied to entire documents, but rather only to best-match subsequences already discovered through *word-level* Smith-Waterman alignment. See §7.2 “Algorithm” below for more detail on this practical decision. It should also be noted that this distinction between character- and word-levels is also used in the original biological context of the Smith-Waterman alignment algorithm. For example, while for DNA and proteins the basic building blocks are nucleotide bases and amino acids, respectively, it is also sometimes advantageous to first consider artificial groupings thereof, often of fixed length, which are in turn called “words”, for the sake of increasing the efficiency of large-scale database search.

⁶⁸⁹ These are the scores I have found to be useful in the current context. Again, I do not yet use affine gap scoring, but I imagine that this might improve results.

(namely, of ŠV 5.4.252 by NBhū) with some definite variations (\cong).⁶⁹⁰ Compare against this the following alternate pairing (the same NBhū passage and PVA 87,5–7).

ekasya eva jñānasya tādṛś tva bhāvah ced
avayavinah api tarhi tathābhūtaḥ svabhāvah
samāna yogakṣema tvāt na paryanuyojyah
yaḥ ca ubhayoh samah doṣah pariḥāraḥ ca
tad samah na ekaḥ paryanuyojyah syāt tādṛś
artha vicāraṇe

atha yathā ekasmāt vṛkṣāt aneka vṛkṣā
sambhavaḥ tathā eka vijñānāt aneka vijñāna
sambhavaḥ evam ekasmāt eva
pāramparyeṇa sakalam jagat utpannam iti
prāptam uktam atra māṭr ā ādi svabhāva
anuvartana prasaṅgāt para loka vādinah api
tarhi sakala pūrva svabhāva anuvartanam
syāt

Here, the best-matching sequence as determined by the algorithm is basically completely insignificant, with a correspondingly low Smith-Waterman score of 19.4.

In short, this single measure turns out to correspond quite well with the range of intertextuality phenomena aimed at here ($= \cong \sim$) as being both of special interest to philologists and a good target for computational assistance. The next two chapters, §6 and §7, address how to effectively implement use of this measure for querying a whole corpus and how to assess the resulting system's practical utility relative to known human philological output, respectively.

⁶⁹⁰ This NBhū text is according to the 1968 edition (126). Once it has been re-edited — see §3, p. 18, specifically the verse: “yatrobhayoḥ samo doṣaḥ pariḥāraś ca tat samah / naikāḥ paryanuyojyah syāt tādṛgarthavicāraṇe //” — the textual abberations turn out to be fewer in number, and the alignment score is accordingly raised slightly, to 64.8.

6 Building an Intertextuality Machine

Here I present two complementary resources for helping to tackle the intertextuality detection problem for Sanskrit *pramāṇa* texts:⁶⁹¹

1) **Pramāṇa NLP**, a machine-readable *pramāṇa* text corpus with excellent coverage of important texts and more consistently precise citation information; and

2) **Vātāyana**, an intertextuality detection algorithm and associated online interface utilizing a novel combination of several techniques well-known in the field of natural language processing but as yet underutilized for Sanskrit, namely, vector space modeling, topic modeling, weighted term-frequencies, and text alignment.

6.1 Corpus (Pramāṇa NLP)

Pre-existing electronic text resources for Sanskrit, the subfield of *pramāṇaśāstra* included, have been created over many decades by diverse scholars for various purposes. Early on, the need to keep track of this diversity resulted in the creation of “registers”, essentially lists of links to online resources (e.g., GRETIL). Later, TEI-XML encoding became part of the digitization goal for some projects (e.g., SARIT). Such encoding standards have evolved significantly, but from a global perspective, practices are still far from stable. Moreover, most projects do not fully anticipate machine-readability. As a result, for someone interested in conducting computational research on Sanskrit texts with natural language processing (NLP) techniques, a great deal of data clean-up is still required. After spending many hours doing such clean-up for my own purposes, I have made my resulting NLP-ready texts for *pramāṇa*, called the **Pramāṇa NLP corpus**, freely available on GitHub for those whose needs may be similar to my own.⁶⁹²

In gathering initial *pramāṇaśāstra* text data for this project, I made an attempt to use materials that are (or that can become) freely available online, for the sake of transparency and repeatability. For this reason, material from SARIT and GRETIL was generally favored over (the surprisingly large amount of) offline material. When it was necessary to use files not yet circulated freely online, I made an effort to change this by publicly posting a version of the file wherever appropriate permission could be secured.⁶⁹³ The idea here is that only data that can be accessed without interpersonal interaction or special approval is truly free and open. In turn, data cleaning could be automated only somewhat; details regarding individual files and their clean-up can be found in the corpus's associated metadata files.⁶⁹⁴ In general: plain-text was extracted from HTML or XML markup where necessary; relevant structure, whether logical, concerning textual structure, or physical, concerning attestation in a physical artifact like a printed edition, was emphasized and standardized, if already available, or else added from scratch; and textual content was briefly checked against a

⁶⁹¹ The following continues work previously presented as Neill 2017 (in Leipzig) and 2019 (in Kharagpur).

⁶⁹² See <https://github.com/tylergneill/pramana-nlp>.

⁶⁹³ For example, the texts of the Nyāyabhūṣaṇa, Ślokavārtika, and Nyāyakandalī are here being made publically available online for the first time.

⁶⁹⁴ See https://github.com/tylergneill/pramana-nlp/tree/master/data_prep/2_metadata.

cumulative record of observed character combinations, or manually proofread in some cases. As a whole, the initial corpus materials failed to consistently mark structure in machine-readable ways that also safeguard the integrity of textual content.⁶⁹⁵ In a few cases, I undertook new digitizations entirely from scratch.⁶⁹⁶ Finally, there are a few works that, although desirable, could not yet be included due to technical constraints.⁶⁹⁷

The resulting corpus is still of mixed quality, with some files exhibiting much more useful structural markup and/or more reliable textual content than others. Many if not all of the files could benefit from further improvement. However, in every case, a minimum structural markup has been enforced which ensures compatibility with two automatic processes: 1) segmentation into logical units that serve as candidates for topic modeling documents (subject to resizing), and 2) isolation of textual content from structural markup. Despite this, each file also remains directly human-readable, with no XML markup.⁶⁹⁸ The corpus consists of approximately 50 texts, most of which are from the first millennium CE (occasionally from the second). When segmented using the Sanskrit Sandhi and Compound Splitter, the number of tokens is approximately 2.2 million words.⁶⁹⁹

⁶⁹⁵ Details of this critique of data consistency can be found in Neill 2019, §9.

⁶⁹⁶ This includes new versions of *Vigrahavyāvartinī*, *Pramāṇaviniścaya*, *Hetubindu*, the second half of *Tattvopaplavasimha*, and *Vyomavatī* (the latter with the kind help of Jungju Seo, PhD candidate at Harvard). “From scratch” generally means using OCR (using Google Vision) on scanned images and manually cleaning up the resulting output with regular expressions and a few other tools.

⁶⁹⁷ This especially includes Vasubandhu’s *Abhidharmaśabdhāya*, for which the e-texts do not sufficiently correspond with either of the two major printed editions, making them an unreliable guide to this very large work in the abstract and too difficult to adapt to the markup standard used in this project. Similarly, the available e-texts for the *Pramāṇavārtika* were sufficiently divergent from printed editions, and those editions so plagued with known problems (cp. footnote 2 above), that it was possible to include this text in the corpus only because it was deemed to be a worthwhile exercise to manually create a synthetic version out of the editions of Miyasaka (starting with Ono’s analyzed versions), Tosaki (ch. 3), and occasionally also other sources. This version of PV should thus obviously be used with caution.

⁶⁹⁸ While XML can be useful for many purposes, I know from experience that most Sanskritists who use electronic texts avoid working with it at all (whether for reading or any other purpose) and have little interest in learning how to do so. I have therefore used my own minimal markup standard, in “txt” file format, which is hopefully less off-putting to the human reader but which could also be converted to XML with relatively little effort at a later date. This standard primarily includes the following conventions (relations to XML noted):

- square brackets [...] for document candidate identifiers
 - cp. the “p” element and “xml:id” attribute
- curly brackets {...} for higher-level structural markup used for document candidate resizing
 - cp. the “div” element
- both small angle brackets <...>, i.e. greater-than and less-than signs, and round brackets (...), i.e. parentheses, for further structural markup that may be removed in NLP preprocessing (both types used for intra-textual structure, e.g., page numbers, and for intra- and/or inter-textual reference; round brackets also used for pre-correction material)
 - cp. the “pb”, “div”, “header”, “trailer”, “choice”, and “sic” elements
- large angle brackets (...) (“left-” and “right-pointing”) for post-correction material
 - cp. the “corr” element
- leading tab and slash for metrical material
 - cp. the “lg” and “l” elements
- quotation marks for intertextual references (where known) as well as for direct speech
 - cp. the “quote” and “q” elements

⁶⁹⁹ By contrast, the DCS has grown from 3.5 million tokens in 2018 to approximately 5.6 million in late-2021.

The associated intertextuality system **Vātāyana**, consisting of both algorithm and user-interface, critically relies on the particular structural markup of **Pramāṇa NLP**, specifically its clean punctuation, marking of passages with meaningful identifiers, and grouping of such passages into larger structures. On the basis of these structural features, the textual data is pre-processed for the search algorithm in four steps:⁷⁰⁰

- 1) the corpus is purged of extraneous human-readable information (e.g., philological notes, extra textual structure);
- 2) documents are resized and regrouped with each other to achieve an optimal size for topic modeling;⁷⁰¹
- 3) documents are split into individual words⁷⁰² and then purged of non-word characters (e.g. numbers, punctuation); and
- 4) a simple LDA topic model is trained on the corpus of cleaned documents.

Word segmentation accounts for virtually all the run-time of the first three steps, which for a 2.2 million-word corpus takes about 35 minutes.⁷⁰³ After automatic resizing, the final number of 300–1,300-character documents for this corpus is approximately 28,000. The final topic modeling step also takes a total run-time of about 35 minutes with tidyToPān, which provides an interface to a fast implementation of collapsed Gibbs sampling in the R

⁷⁰⁰ This pre-processing pipeline, including basic topic modeling setup, has been described in closer detail in Neill 2019, §§4–6. The topic modeling has also been demonstrated in Neill 2021 (workshop presentation), a video of which is available on YouTube at <https://youtu.be/eQSbteKN-FA> under the title “Tyler Neill - LDA Topic Modeling in Sanskrit with ToPān and Metallō”.

⁷⁰¹ Minimum and maximum sizes of 300 and 1,000 characters are lightly enforced, in that documents are reconfigured once within their respective sections (as indicated in the corpus data by structural labels in curly brackets). This can leave a small number of documents that are either very small (<300 characters) or somewhat larger than the desired maximum (between 1,000 and 1,300 characters). So far, these documents with non-compliant size have not been treated differently in modeling or beyond, but small documents in particular are likely to yield less meaningful results.

⁷⁰² For this word splitting, I currently use only the Sanskrit Sandhi and Compound Splitter, which does not perform stemming or lemmatization. This results in the full range of unsandhified but still-inflected forms of a given word (e.g., *arthah*, *artham*, *arthena*, etc.) all being treated as separate words. One might well suspect that retaining such morphological complexity rather than simplifying to a base form that conveys root meaning would be detrimental in semantic modeling. However, as far as I can tell from the literature on LDA topic modeling, it is not at all yet clear that stemming and/or lemmatization is universally beneficial for improving model quality, nor which conditions would guide their proper application in a given situation. Especially for highly inflected languages like Sanskrit, the intuition behind *not* performing stemming/lemmatization is that morphological forms may well be important for signaling importantly different uses of a given word (e.g., in Sanskrit, optative verb forms are central to the topic of *vidhi* or “injunction” in Vedic literature, whereas the instrumental form *-rūpena* is especially important for expressing qualification in Jaina *syādvāda* literature). For doing such stemming/lemmatization on Sanskrit, Sanskrit-specific resources readily capable of being applied to an entire corpus are still in their infancy (cp. footnote 644 above), and I have experimented only briefly with a more general tool like “morfessor”. As is, leaving Sanskrit words intact does clearly still yield meaningful topic results, both in qualitative interpretation and information-retrieval contexts. I therefore leave further experimentation with this aspect of preprocessing as a desideratum for later empirical study.

⁷⁰³ Running on a MacBook Pro with macOS 11 Big Sur, 2 GHz Quad-Core Intel Core i5 processor, and 16 GB RAM.

library “*Ida*”.⁷⁰⁴ Finally, for the sake of human interpretability, the resulting topics (chosen here to be 75 in number) are each manually described with a short English phrase as well as automatically described with top-word lists and word clouds, and all document topic values are rendered as bar charts with the Python library “*Matplotlib*”, with a run-time of approximately 90 minutes for all 28,000 documents (making it the slowest part of the data-prep pipeline). The data is then ready for use with *Vātāyana*.

6.2 Algorithm (*Vātāyana*)

Vātāyana combines several well-known techniques in natural language processing, namely, topic modeling, weighted term-frequencies, text alignment, and vector space modeling, to compare corpus documents and rank them in terms of similarity with a given query document. In the field of information retrieval, such use of an entire document as the query is known as “search by example”, in contrast to using a short phrase, or “search by keyword”.⁷⁰⁵ While it is true that any given division of a corpus of this sort into artificial documents for topic modeling is somewhat arbitrary,⁷⁰⁶ the particular combination of techniques used nevertheless allows the system to perform impressively well on a range of intertextuality phenomena, spanning both verbatim and non-verbatim parallels, i.e., not only quotation but also paraphrase. What's more, the careful staggering of these techniques as part of a “winnowing” strategy keeps the runtime of basic single queries on the order of single-digit seconds, making the algorithm practical for use also in real-time. In this way, users can experiment with customizing the search process to make it conform to their particular research questions.

The overall search algorithm is sketched below in Figures 4 and 5.

⁷⁰⁴ Key model hyperparameters include: K=75, alpha=0.02 (symmetric), beta=0.02 (symmetric), passes=1, and iterations=1000. Numerous experiments were conducted with tuning these hyperparameters, especially the number of topics K, but as long as K was within the generous range of 30–100, no other attempts at optimization led to improved results. In short, the implementation of Gibbs-sampling in the R library “*Ida*” as accessed via *tidyToPān* was found to be quite robust and reliable for producing practically useful topic models. The library gets David Blei's approval as “*fast*” (emphasis original) in the latter's annotated list of topic modeling software; see online at: http://www.cs.columbia.edu/~blei/topicmodeling_software.html (accessed Aug 26, 2021).

⁷⁰⁵ Compare, for example, the nature of the query in a Google “Images” search versus a standard text search.

⁷⁰⁶ The arbitrary nature of the corpus documents is theoretically only ever temporary; given the probabilistic nature of topic models, it is also possible to 1) build a topic inference tool on the basis of the optimally trained model, 2) reconstitute the corpus in terms of some other document division that is more preferable, and 3) use the inference tool to assign appropriate topic values for each new document in the corpus. I look forward to experimenting with this variation in the future.

<u>Inputs</u>	<u>Settings</u>
1) "Theta" table of topic proportion values for all documents	1) Threshold parameters N1 (for TF-IDF) and N2 (for Smith-Waterman) that determine search depth and corresponding runtime
2) Cleaned full-text for all documents	2) List of works whose documents will be treated as priority comparison candidates

<u>Steps</u>
1) Compare query document against all other documents in terms of cosine similarity of topic-proportion vectors (approximate time per comparison: 7 microseconds) and rank results.
2) Set aside all non-priority documents.
3) Also set aside all priority documents that rank worse than N1 in terms of topic similarity.
4) Compare query document against remaining priority documents by first constructing ("tiny") TF-IDF vectors from each pair of document fulltexts, then comparing them with the cosine similarity metric (approximate time per comparison: 300 microseconds). Rank results.
5) Set aside all documents that rank worse than N2 in terms of this TF-IDF similarity.
6) Compare query document against remaining documents by computing Smith-Waterman scores for each pair of full-texts (approx. time per comparison: 4,500 microsec.) Rank results.
7) Present results ranked by Smith-Waterman-word scores but also accompanied by other two calculated scores (topic, TF-IDF).

Figure 4: Search Algorithm Outline



Figure 5: Graphical depiction of algorithm's "winnowing" strategy (basic N1 & N2 values)

Details on the three individual comparison techniques are as follows:

Topic comparison: This method, nearly exactly the same as that at the heart of Metallō, relies on the “theta” (alternatively, “eta”) parameter values inferred in the LDA topic modeling process. These specify the topic composition of each document as a percentage likelihood, reflecting the generative assumptions of the model. In the implementation here, I choose cosine similarity as my comparison metric, primarily for the advantage of a result in the easy-to-understand range of 0.0–1.0, where 0 is no similarity and 1 is completely identical. Specifically, the Python library “fastdist” is used, although its optimization features may well not be warranted given the relatively small size of topic vectors. Other options include using other metrics (e.g., Metallō offers Manhattan and Jensen-Shannon distances) and/or different implementations (e.g., within Python, both “scipy” and “sklearn” offer most of these options these alongside more basic Euclidean distance).⁷⁰⁷

“Tiny TF-IDF” comparison: TF-IDF is a simple bag-of-words technique which assigns a value to each unique word or “term” in a document based on its “frequency” (i.e., simple integer count) within that document (hence “term frequency” or TF), which is then weighted by the term’s inverse document frequency (IDF) over the whole corpus, i.e., the number of corpus documents it occurs in. The IDF scores for all words need be calculated only once, for example when starting the system server. As for which words to compare in this way, it is common to exclude certain words from receiving such a TF-IDF score either if they are too common, i.e., stopwords, or if they are too rare, whether as determined by a given term’s overall frequency in the corpus or by its document frequency; here, the former is used for excluding stopwords and the latter for rare words. The resulting subset of words to be included in TF-IDF calculations can thus be called the reduced vocabulary. In contrast to the common (but quite inefficient) practice of creating and comparing very large and sparse TF-IDF vectors based on this entire reduced vocabulary, I instead use “tiny” TF-IDF vectors based on the much smaller local union of only those reduced vocabulary words actually shared by whichever two documents are being compared at a given time. I do not know of any precedent for this variation on the technique, but the results, which of course are much faster, seem to me to be virtually the same in their usefulness. Again, I use the cosine similarity metric here, which produces a final score in the range of 0.0–1.0, but there are a range of other possible metric options.

⁷⁰⁷ Since it is designed precisely for comparing probability distributions, the Kullback-Leibler divergence might seem to be a more theoretically motivated choice for how to measure the difference of two given documents in terms of their topic proportions. More specifically, the normalized and symmetrized form of KL divergence known as Jensen-Shannon divergence is more appropriate for use as a metric of relative distance. This also gives output in the range of [0,1], just like cosine similarity, and it is commonly available, e.g. in the fastdist and scipy libraries. My own brief experimentation finds that use of this alternate metric yields virtually identical information-retrieval performance, so I have chosen to wait for now on implementing this (and other metrics) as an additional user choice; all else being equal, the geometric intuition between cosine similarity is simply easier to understand than the information theory concepts underlying KL divergence. Note too that I also provide the option of weighting individual topic vector components (i.e., dimensions in the vector space) for the sake of similarity comparison, but until individual topics can be more reliably differentiated from each other, this modification is likely premature and probably not helpful to present to the user.

“Smith-Waterman-word” comparison: There are two basic types of word alignment, namely, global and local. Global alignment, for which the Needleman-Wunsch algorithm is most common, is appropriate for cases where the comparands are expected to be roughly the same, e.g., when comparing manuscript witness readings of a given passage, as the algorithm forces the best match from beginning to end of each text. On the other hand, local alignment, for which the Smith-Waterman algorithm is most common, is appropriate for cases where the comparands are expected to mostly be *not* the same, as the algorithm does not force a beginning-to-end match but instead finds only the single best matching internal sequence between the two. In comparing Pramāṇa NLP corpus documents against each other, therefore, Smith-Waterman local alignment is a much better way of probing for similar sequences.⁷⁰⁸

The other main decision concerning implementation of local alignment is whether to conduct this comparison on the level of individual characters or on the level of words. Since word-level comparison involves a much smaller number of calculations, and since most document comparisons will have little to nothing in common anyway, therefore, for current purposes, the word-level comparison suffices for basic indication of the presence of potentially interesting intertextuality. In turn, then, the text of the best matching sequence as determined by word-level Smith-Waterman alignment is subjected to a more precise character-level alignment. It is the numerical maximum from the Smith-Waterman scoring matrix for this smaller character-level alignment that yields the numerical score used here for final similarity ranking.⁷⁰⁹ This score, unlike the other two used (topic and TF-IDF), is not in the range 0.0–1.0 but rather simply either zero or some positive number. Experience shows that Smith-Waterman values of over 30 or 40 tend to be more interesting, with triple-digit scores indicating very extensive overlap.⁷¹⁰ This, again, as far as I know, is a novel variation on a established way of measuring textual similarity with Smith-Waterman local alignment.

⁷⁰⁸ I use a very basic version of this algorithm as found on the internet, originally written in 2013 by Ryan Boehning for aligning nucleotide sequences and cleaned up and put online by Radhouane Aniba (GitHub name “radaniba”). Aside from generalizing the function to be able to switch between performing either word- or character-level comparison with the simple passing of keyword parameter, the only other important change I made was to the scores, according to what worked well in my experience: match = 1.0, mismatch = -0.8, and gap = -0.8 (instead of the more common proportions 1.0, -0.5, and -0.5, respectively). That is, I do not yet even use affine gap scoring, i.e., differential scoring for starting or extending a gap. This algorithm component can therefore almost certainly be further optimized.

⁷⁰⁹ The time-savings with this word- vs. character-level heuristic is substantial. For example, for the first document pair given above (NBhū 126,1–5 and ŠV 5.4.251–253, each of length 220 characters), comparing at the word-level takes 0.0013 seconds, while comparing at the character-level takes 0.0534, i.e., 41 times longer. On the other hand, comparing even at the *character*-level for only the short extent of the best word-level match (“yah ca ... vicāraṇe”, of length 100) takes a mere 0.000008 seconds, or just 0.6% of the time for the word-level comparison of the entire passages. In sum, comparing the two documents on the level of words and then their best matching subsequences on the level of characters takes 0.0013 + 0.000008 for a total alignment computation time of 0.001308 seconds. These artifical examples for demonstration purposes are relatively small compared to actual corpus documents (of average length 530), hence the larger reported average time of about 0.004500 seconds per Smith-Waterman comparison.

⁷¹⁰ This is relative to documents whose size is capped in preprocessing at around 1,300 characters (see footnote on preprocessing above).

6.3 User Interface (Vātāyana)

The fully functional web-app user interface, now available on a public website,⁷¹¹ has seven main pages, in addition to landing, “About”, and “Tutorial” pages, a hidden “reset” endpoint, and functionality as an importable library offline, including a batch-search mode in a Jupyter Notebook. The landing page is shown below, and descriptions of the seven other main pages follow below, accompanied by their own screenshots.

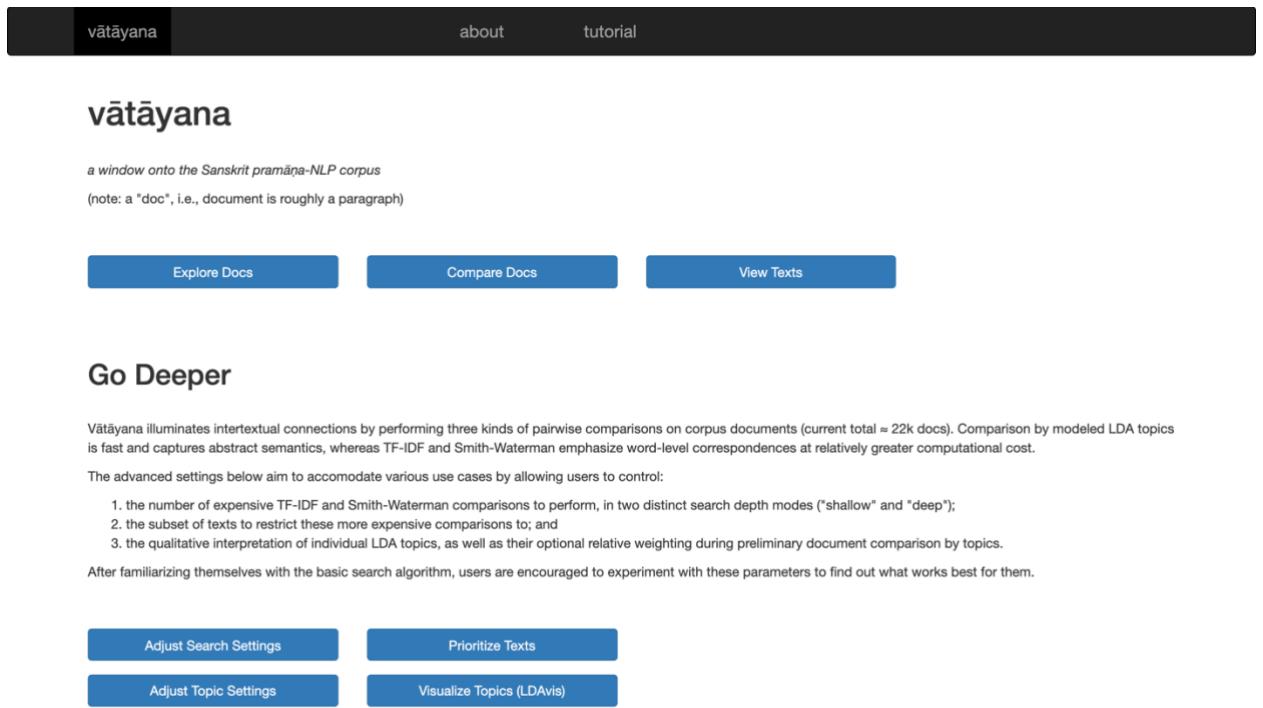


Figure 6: Vātāyana landing page

⁷¹¹ See <https://www.vatayana.info>.

1) **textView**: This page displays a basic HTML transformation of Pramāṇa NLP fulltext files for convenient browsing purposes. Most importantly, for each final corpus document (i.e., the ones created artificially for modeling purposes and for which similarity queries can be issued), a **docExplore** link is placed in this textView adjacent to associated document candidate identifier from the original fulltext.⁷¹²

103,13 (NBhū_103,13)

yadi tarhi sambandhaḥ sādhakatamatvam, tadaśarvātmanārtha grahanaprasaṅgah, sarvātmanārthasya sambaddhatvād iti, na; kāraṇasya niyatavīṣaye sāmarthyāt — na hi paraśūḥ sambaddhatvād eva vrksavat taddharmānākāśādikam cāpi chinati, dhūmaś cāgnidharmān aśeṣān na gamayati. bhavata eva pakṣe dharma dharminor abhedābhypagamāt sarvātmanārththena janitasyārpitavākārasya jñānasya sarvātmanārthaniścīyakatvaprasaṅgah. so 'yam uṣṭralakutanyāyām anutīṣṭhan kathaṁ nopahāsaviṣayah syād iti? dharmidharmānām khalu bhede sati yasyaivendriyagrahanārthatvam sa eva dharmo dharmi vā sambaddha indriyeṇa grhyate. yasya tu nendriyagrahanārhatvam sa sambaddho 'pi na grhyate tadarthan evoktaṁ sthūlārthagrāhakam iti.

avayaviniṛāsaḥ

104,6 (NBhū_104,6^1) (NBhū_104,6^2)

nanu cāsthaḥūṣyārthasya grāhakam, na tu jñānākārasya sthāulyam asfly ato na jñānātmakam sthūlam grāhyam iti (nanu ca) jñānād arthāntaram sthūlam sutarām na sambhavat, tathā hi — na tāvad eko 'vayavī, tathā sati tasya pānyādikampe sarvakampaprapṭeh), akampane vā cālācaloyor prthaksiddhiprasaṅgat, vāstrodakavat, ekasya cāvaraṇe sarvasyāvaraṇaprasaṅgād abhedaḥ na vā kasyacid āvaraṇam ity avikalpan dr̄ṣyeta. avayavasyāvaraṇam nāvayavina ity abhyupagame 'py arddhāvarane 'py anāvṛtavāt prag ivāsyā darśānprasaṅgah. avayavadarśānadvāreṇāvayavadarśānam ity asminn api pakṣe sarvātīhāyavavino 'pratipattiprasaṅgah, sarvāvayavānām draṣṭum asākyavāt. katiपayavāyavadarśānād avayavadarśāne 'pi tathābhūtasyaiva darśānprasaṅgah), raktacākasminn avayave yady avayavī raktas tādīnāyavavastho 'pi rakta eva dr̄ṣyeta, no cet tādā sarvāvayavarāge 'py avayavarakta evopalabhyeta. vṛtyanupapatteś cāvayavī nāsti, tathā hi — gavi śrīgam iti laukikam, śrīnge gaur ity alaukikam tato yady avayavī avayavā vartante tadaikenaiवायवेनक्षणस्यावयवविनो 'varuddhavād anya avayavāḥ kva varteran? na hi mūrttānām ekadeśāvasthānam asti. na cāvayavavayatirekeṇāvayavīnām pradeśabhedo 'sti, yenāvayavānām ekadeśātvaṁ na prasajyeta. ekadravayavṛttive ca dravyasyābhypagame yuktibādhāpi syāt. athāvayavāvayavī vartata iti pakṣah. tatrāpy ekasmīn evāvayave yadi sarvātmanā vartate, tadañye 'vayavās tadañeśrayāḥ syuh; ekāśrayatve ca dravyasya sadotpattiḥ avināśā ca syāt.

106,3 (NBhū_106,3)

itaś ca nāsty avayavī, buddhyā vivecanē 'nupalambhāt. na hi ayam tantuḥ, ayam tantuḥ — ity evam buddhyā prthakkriyamāneśv avayaveṣu tadanyo 'vayavī pratibhāti. etenāvayavādharmo 'vayavītī ayam api pakṣo nīrastaḥ, tasmanī nāsty eko 'vayavīyah sthūlapratibhāsaviṣayah syāt. nāpi paramāṇusamūhā eva sthūlapratibhāsaviṣayah, tasya paramāṇuvyutiriktaśyāvayavīnāyēnāpāstataitvāt, paramāṇūnām ca pratyekam na sthūlātmatvamasti, samuditānāmapi kathaṁ syāt? na hi pratyekam araktānām samudāyāvasthāyānām raktakāratopalabhyate. marciṇām udakākāratāvad bhrāntopalambhāḥ syāt.

106,11 (NBhū_106,11_107,1)

athalvam ucyate — yadi sthūlam jñānād arthāntaram grāhyam na sambhavat, sūkṣmam eva tarhi grāhyam bhaviṣyatītī. tadaḥ apy asat, yataḥ — "saṅkena yugapad yogāt paramāṇoḥo saṅgamśatā / ṣaṇṇām apy ekadeśate piṇḍah syād anumātrakah //".

107 1

Figure 7: Vātāyana textView page

⁷¹² For example, the five small document candidates VS 1.1.1 through VS 1.1.5 are combined in preprocessing into a single final document, called "VS_1.1.1_1.1.5". Therefore, in the textView for VS, the docExplore link for this document "VS_1.1.1_1.1.5" can be found adjacent to the identifier of the first of the five component candidates documents, namely, VS 1.1.1. On the other hand, the large NBhū document candidate constituted by the paragraph beginning at 104,6 is split during preprocessing into two smaller documents, called "NBhū_104,6^1" and "NBhū_104,6^2". In the textView for NBhū, the docExplore links for *both* of these documents can be found adjacent to the identifier of the original large document candidate, "NBhū 104,6".

2) **docExplore**: This page is the main interface to the search algorithm outlined above. A single identifier for the document query is accepted as input, and then the search is executed in real-time and the result displayed. The result display includes:

- i) two versions of the text, both original and cleaned/segmented (see Fig. 8a);
- ii) a bar graph showing the document's topic proportion values (Fig. 8b, left);
- iii) a verbal and numerical summary of topic proportions, including percentage value, manual interpretive labels, links to **topicVisualizeLDAvis** (see page description below), links to word clouds, and (as hover tooltips on the word-cloud links) the top-word lists more traditionally used to automatically name topics (Fig. 8b, left); and
- iv) an interactive table of similarity results (formatted with the DataTables plug-in), including document identifiers (with additional structural info as hover tooltips), numerical scores (as available), and corresponding links to both **textView** and **docCompare** (Fig. 8b, right).⁷¹³

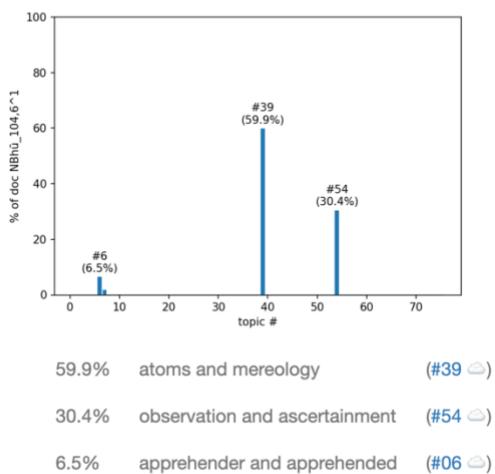
Figure 8a: Vātāyana docExplore page, top (text and navigation buttons)

⁷¹³ The underlying code also distinguishes between “priority” and “secondary” results, the latter of which (either as non-prioritized texts or as results having less than the full three numerical scores) is disabled for now but could later be convenient to provide as a further option at the cost of an additional delay.

tadānyāvayavastho 'pi rakta eva dr̄syeta, no cet tadā sarvāvayavarāge 'py avayavayarakta evopalabhyeta.

yadi avayavī raktah tadā anya avayava sthaḥ api raktah eva dr̄syeta no ced tadā sarva avayava rāge api avayavi araktah eva upalabhyeta

Topic Analysis



Similar* Docs of Priority Texts*

Show 25 entries Search:

rank	doc_id	topic	tf-idf	align	links
1	PVin_I,034,i	0.99	0.61	356.2	txtVw dcCp
2	NBhū_109,27^2	0.85	0.24	88.0	txtVw dcCp
3	ŚVK_II,99,ii^3	0.69	0.31	80.8	txtVw dcCp
4	NBhū_109,27^1	0.80	0.27	46.2	txtVw dcCp
5	PVA_092,xv_093,ii	0.74	0.14	35.2	txtVw dcCp
6	PVV_41,iv	0.79	0.24	31.6	txtVw dcCp
7	PVV_41,ii_41,iii	0.70	0.19	31.6	txtVw dcCp
8	PV_2.083ab_2.085cd	0.82	0.18	31.6	txtVw dcCp
9	PVV_41,v_42,i	0.80	0.23	27.4	txtVw dcCp
10	AvNir_05,ii_05,iii	0.77	0.17	26.0	txtVw dcCp
11	PVA_093,iv	0.52	0.24	23.0	txtVw dcCp
12	AvNir_06,iv_06,v	0.95	0.19	21.2	txtVw dcCp
13	TUS_ii,98,i	0.43	0.29	19.6	txtVw dcCp
14	NuKand_11q,ii^2	0.85	0.39	18.8	txtVw dcCp

Figure 8b: Vātāyana docExplore page, bottom (topic analysis and similarity search results)

3) **docCompare**: This page serves as a companion interface to **docExplore**, taking not one but two document identifiers as input, and helping to visualize documents side-by-side. It namely portrays the overlap between two documents with a special hybrid combination of local and global alignment, with color formatting to highlight similarity.⁷¹⁴ “Previous” and “Next” buttons are available for moving between adjacent documents within each respective text (e.g., from one NBhū paragraph to the next). However, the main use of this mode is to visualize pairs of documents already discovered to be mutually similar on the basis of the search algorithm accessed in docExplore. For this purpose, additional “Previous” and “Next” buttons appear when either document is in the top similarity search results of the other document.⁷¹⁵ Below the alignment are also shown: i) the same bar graph and summary of topic proportions as found in the **docExplore** mode (see above); and ii) a final statement of all pairwise similarity scores, with hover-over (i.e., tooltip) notes on each, and also including a fourth “Composite Alignment Score” giving a weighted sum of the number of highlighted characters adjusted by each character's respective shading value.⁷¹⁶

The screenshot shows the 'Compare Docs' page of the Vātāyana website. At the top, there is a navigation bar with links for 'vātāyana', ': docCompare', 'about', and 'tutorial'. The main content area has two sections for comparison:

- Document 1:** NBhū_104,6^1 (docExpl) (txtVw)
 - Buttons: << NBhū_103,13, NBhū_104,6^2 >>, (#1417) PVV_406.ix_407
 - Text Summary: within NBhū
 - Similar Document: (#2) ŠVK_II,99,ii^3
- Document 2:** PVin_I,034,i (docExpl) (txtVw)
 - Buttons: << PVin_I,033,i, PVin_I,035,i, I,036,ii >>, (#1417) NM_II,262,i
 - Text Summary: within PVin
 - Similar Document: (#2) NBhū_109,27^4

Below the comparison sections, there are two 'Text Segmented and Highlighted' sections. Each section contains a large block of text with green highlighting indicating shared or similar readings between the two documents.

Figure 9: Vātāyana docCompare page, top

⁷¹⁴ This novel alignment method first uses Smith-Waterman-word to find the overall best matching sequence between the two documents. It then divides the two documents into three parts each, with the best matching sequences as the middle-most second parts, and leftover document text (or empty strings) as the respective first and third parts. Finally, global alignment is performed on each of the three pairs with CollateX, and the result is formatted in HTML, with green color highlighting similarity: fully shared readings get the darkest color, competing readings get a proportionally lighter shade depending on a piecewise score translation function (0.00–0.25 => 0.0; 0.25–0.50 => 0.2; 0.50–0.75 => 0.4; 0.75–1.00 => 0.7), and readings unmatched by text in the other document are not colored at all.

⁷¹⁵ In order to populate the similarity rankings underlying the display of such buttons, as currently programmed, every call to the docCompare page invokes the entire search algorithm two times, one for each document. This can certainly be made more efficient, for example by cacheing results.

⁷¹⁶ That is, weighted by the factors 0.0, 0.2, 0.4, 0.7, and 1.0; see footnote 714 just above.

4) **textPrioritize**: This page allows the user to choose which texts (e.g., NBhū, NBh, PVA) are to be treated as higher priority in the search process. A rough chronological ordering of options allows for more convenient selection of groups likely to be chosen on the basis of time periods.

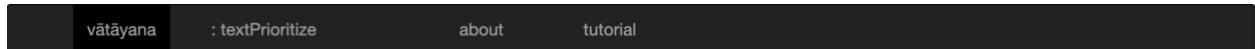


Figure 10: Vātāyana textPrioritize page

5) **searchSettings**: This page allows the user to set the threshold values N1 and N2, for the numbers of TF-IDF and Smith-Waterman comparisons to be performed, respectively. Interactive controls show especially the dependence of N2 on N1 — specifically, N2 can never exceed N1 —and estimated total query search times based on per-comparison values are updated as the user changes threshold values. Experience showed that maintaining two separate sets of values, one for a “shallower”, faster search, and one for a “deeper”, slower search, is practical for being able to switch between fast and generally reliable searches most of the time and slower and more thorough searches on occasion.⁷¹⁷

The screenshot shows the Vātāyana searchSettings page. At the top, there is a navigation bar with links for vātāyana, : searchSettings, about, and tutorial. The main content area is titled "Search Settings". Below this, a section titled "Search Depth" has a radio button for "Shallow" (selected) and one for "Deep". The "Shallow Search Parameters" section contains two sliders. The first slider is labeled "(Topic comparison is always performed for all candidates.)" and has a value of 0.20 s. The second slider is labeled "(200 or 0.7% of docs) * (0.004513 s / sw_w comparison) = 0.91 s" and has a value of 0.91 s. The total time is listed as 2.44 s per query. The "Deep Search Parameters" section also contains two sliders, both of which are at their maximum values. The first slider is labeled "(28381 or 100% of docs) * (0.0000070 s / topic comparison) = 0.20 s" and the second is labeled "(28381 or 100.0% of docs) * (0.000315 s / tf_idf comparison) = 8.04 s".

Figure 11: Vātāyana searchSettings page

⁷¹⁷ This may of course one day be rendered unnecessary by full cacheing of all results ahead of time, if it should ultimately not prove useful to be able to change other aspects of the search system in real time. For example, cp. the ability to at any time change the distance metric used in Dr. Köntges's tool Metallō.

6) **topicAdjust**: This page allows the user to adjust both the interpretive labels for topics and the weights for topic similarity calculations (although the latter option has not proven itself to be very useful yet). As with the summaries provided in the **docExplore** and **docCompare** modes, top-word lists, word clouds, and links to LDAvis are also provided to aid the interpretive process.

Interpretive Labels
#01 (Pramāṇavārtikālāṅkāra)
#02 (Ślokavārtikakāśikā)
#03 cognition and objects
#04 momentariness
#05 (dialectic)
#06 apprehender and apprehended
#07 (Śabarabhāṣya)
#08 Vaiśeṣika
#09 inference
#10 r̥v̥n̥f

Figure 12: Vātāyana topicAdjust page

7) **topicVisualizeLDAvis**: Finally, this page provides access to the popular LDAvis interactive visualization of topic modeling “phi” data (i.e., topic-over-word distribution values) output by (tidy)ToPān in the form of a JSON file that can be converted into easily embedded HTML and JavaScript code with the Python library “pyLDAvis”. This well-established visualization provides multiple ways to understand the composition of modelled topics in terms of individual words, including by an ordered bar chart of “relevance”-adjusted frequency values of individual terms,⁷¹⁸ graphical representation of the proportional prominence of individual terms within the various topics, and graphical representation of the relative prominence of a given entire topic relative to other topics. Further information on using LDAvis is readily available online.

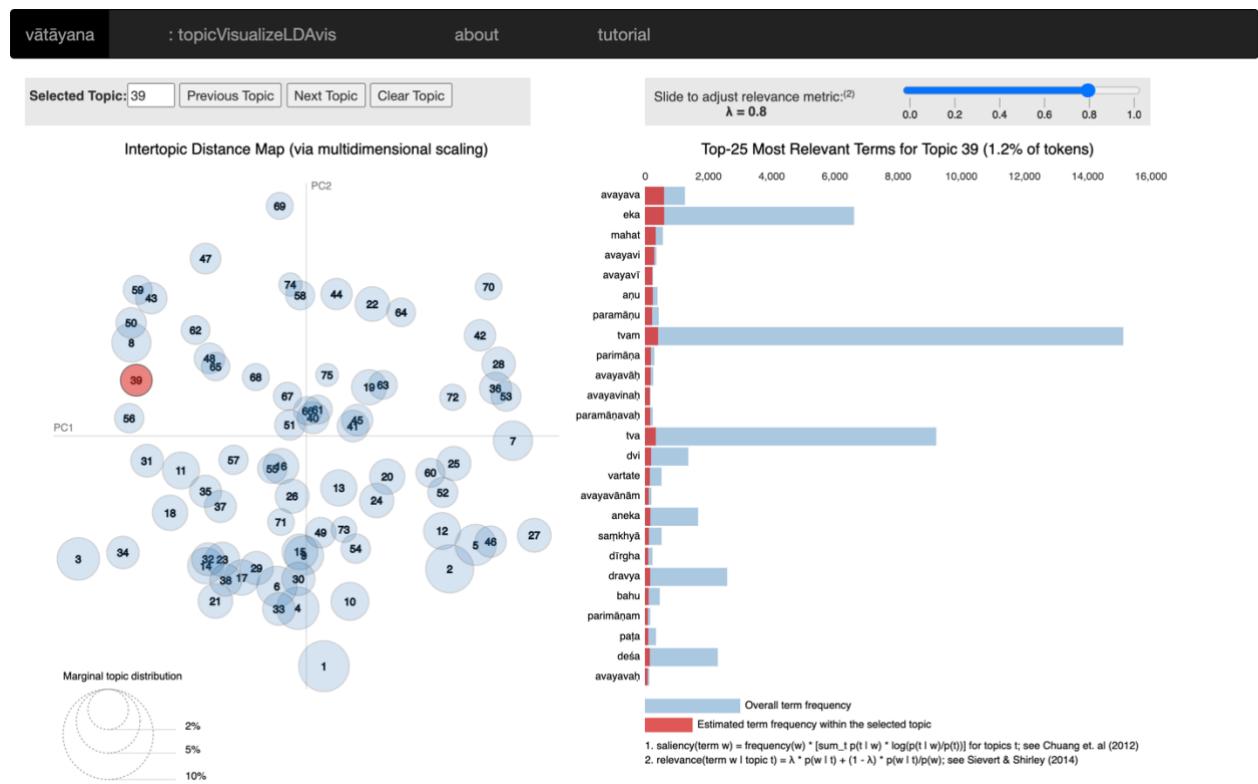


Figure 13: Vātāyana topicVisualizeLDAvis page

In addition to these seven front-facing components of the user interface, the Vātāyana project code can to a limited extent also be imported as a Python library. The project repository on GitHub⁷¹⁹ includes a Jupyter Notebook which exhibits such import functionality, especially featuring a batch-search mode. This is the very same Jupyter Notebook used to produce results for the system assessment below.

⁷¹⁸ On a correction concerning the calculation of these relevance values, see Neill 2019, p. 57, n. 27 (PDF page p. 6).

⁷¹⁹ See <https://github.com/tylergneill/vatanya>.

7 Evaluating System Performance

Here I give a concise summary of how well the current Vātāyana system performs at detecting certain kinds of intertextual parallels within the Pramāṇa NLP corpus (currently at 50 texts and 2.2 million words), with a special focus on NBhū 104–154. I do this by comparing Vātāyana's output to pre-existing philological findings concerning this particular sample material, namely by Shodo Yamakami.

7.1 Previous Scholarship on NBhū 104–154 as Philological Benchmark

For the basis of this evaluation of Vātāyana, I adopt the footnotes provided by Yamakami (1999) in his Japanese translation of this same passage NBhū 104–154.⁷²⁰ The two-step method for making these footnotes usable for this purpose is as follows.

First, wherever Yamakami indicated an intertextual parallel in his footnotes, I made note of it, along with both full texts implied by the note, in tabular form. In this table, text material is broken down into passages according to the post-processed Pramāṇa NLP corpus and its identifiers, in anticipation of Vātāyana's needs. However, I also include other identifier information helpful for tracking down the reference as actually made in Yamakami's work. The full table is disclosed below as Appendices 14 and 14D.

Already in converting these footnotes into such a table, however, there were quite a few challenges. Above all, the fact that Yamakami's footnotes refer to different textual editions than were used for the Pramāṇa NLP corpus required a fair amount of effort in tracking down and lining up the corresponding texts and identifiers. Even at that, depending on the exact footnote methodology used (e.g., the exact placement of the footnote marker, or the explication provided in the footnote itself), it was not always perfectly clear to me what text a given footnote was referring to and how. I addressed this mainly by simply giving Yamakami the benefit of the doubt whenever I was able to discern a nearby textual correspondence that seemed to be the intended referent; I may, however, have made some mistakes in this regard. Second, the document divisions in Pramāṇa NLP sometimes posed a problem when they artificially imposed breaks in the middle of passages. In such cases, the number of relevant parallels might have been artificially inflated (or more rarely, reduced), in that one Yamakami footnote might need to correspond to two or more of the fixed Pramāṇa NLP identifiers. This may be counted as a disadvantage of the current approach (relative to, say, BuddhaNexus's more continuous treatment of text), but even so, the system still seemed quite usable despite this issue, and so I judged it to be acceptable. Thirdly, I cannot readily read Japanese, so the language-barrier was somewhat of a problem, but in the end it was not a very serious one, since the relevant intertextual notation, centering on easily recognizable text abbreviations (e.g., “PV”, “VS”, etc.), is typically symbolic and/or Latin-based anyway (e.g., “=”, “cf.”, “pp.”, etc.)⁷²¹ And finally, since this was

⁷²⁰ Yamakami 1999, translation pp. 159–265, footnotes pp. 266–291. For a parallel to this method in the Classics, see the evaluation of Tesserae in Coffee et al. 2012.

⁷²¹ I initially intended also to report on Yamakami's use of markers like “=”, “cf.”, or Japanese words like 参照 (“refer to, consult”) or 引用 (“quotation”) – or also the lack of marker, which seems to generally

very time-consuming work, I decided to focus for now only on works earlier than the NBhū and to simply exclude several later interesting Buddhist and Jaina works which Yamakami also took into consideration.⁷²² I was also limited by how many texts I could include in the Pramāṇa NLP corpus, although by design of that corpus, this tended to affect only texts of secondary importance for questions about the NBhū and its sources.⁷²³

After this, the second step was to carefully inspect the full text of each case and to classify each parallel according to the symbolic system introduced above (§5.3), as virtually exact (=), nearly exact (≈), loosely the same (~), merely conceptually related (÷), and tangential referential (@). As explained above, the first three types are the focus of the current endeavor. Since parallels of these kinds could generally be corroborated upon inspection, I make the simplifying assumption here that all of Yamakami's associations of these sorts are correct. That is, while it is true that other scholars might have made different choices about what footnotes to provide for this same material, most such divergence would concern those kinds of intertextuality not at the center of this computational endeavor, namely conceptual resonance (÷) and tangential reference (@), and not those involving fairly clear cases of mid-sized text reuse. It is also true that others would likely make slightly different decisions regarding the exact classification into intertextuality types, but I maintain that the number of cases that would cross the boundary between the two groups (= ≈ ~ and ÷ @) would remain small.

One more important caveat remains: Parallel passages in various texts may be redundant as regards interesting intellectual innovation, and so it should not be expected that any scholar, whether Yamakami or anyone else, would necessarily list *all* possible such parallels. For example, in the present context, Dharmakīrti may have employed similar arguments in several of his works, e.g., PV, PVSV, PVin, and HB, but Bhāsarvajña may in a given case have focused on just one of these works, e.g., PVin. Given this, it may well be best in such a case for a human scholar to take note of only the one or two textual connections judged to be most important in this way. Nevertheless, I believe that it would be quite a handy starting point if a computer system could automatically have *all* such possible parallels organized and ready for expert consideration. That is, although it is not likely to be reflected in any such benchmark adapted directly from published philological scholarship (exceptions like Bloomfield's Vedic Concordance notwithstanding)⁷²⁴, this sort of redundancy should indeed be considered part of the goal of the system. We are thus necessarily dealing with a data

correspond with “=” – but these did not turn out to have been used systematically in the way suggested by Trikha's work, and so I omit this information.

⁷²² For example, Yamakami also considered Ratnakīrti, Jñānaśrīmitra, Vādirājasūri, Prabhācandra, and Abhayadevasūri.

⁷²³ Some texts earlier than the NBhū noted by Yamakami for intertextual parallels but not included in this evaluation are Bāhyārthaśiddhikārikā by Śubhagupta (in Tibetan), various Upaniṣads (Bṛhadāraṇyaka, Chāndogya), the Laṅkāvatārasūtra, and the Vaidalyaprakaraṇa.

⁷²⁴ Bloomfield's concordance is a thorough exploration of parallel passages in the Vedic literature, especially including “pratīka”-type references, in which a verse's first words are used for referring to the whole. Insofar as the approach described here with Vātā�ana can be made more effective at detecting small intertextual parallels (cp. §5.3 above), such a comprehensive resource as this concordance — or the extended dataset currently under preparation by Hellwig et al. (2020) in Zürich — would certainly be an excellent resource for expanding an assessment benchmark from tens of data points to thousands.

situation where not all desired positives are known ahead of time.⁷²⁵ On the one hand, this means that the chosen benchmark is, relative to the system output, incomplete. On the other hand, as long as this is properly understood, it needn't preclude us from using assessment measures which do assume benchmark data to be complete in order to obtain a general picture of performance relative to such a traditional philological resource.⁷²⁶

Of Yamakami's total 412 footnotes in his study of the passage NBhū 104–154, I discerned 93 of them to involve a total of 114 intertextual references to Pramāṇa NLP texts prior than NBhū.⁷²⁷ Of these 114 references, I judged 71 to involve "exact" (=), "nearly exact" (\cong), or "loosely-the-same" (\sim) intertextual parallels.⁷²⁸ As divided for Pramāṇa NLP, the passage NBhū 104–154 is comprised of 140 documents, and the 71 relevant intertextual parallels are concentrated in 42 of these 140 documents. Therefore, insofar as Vātāyana and its final similarity scoring with Smith-Waterman can, during queries of all 140 of these NBhū passages, clearly single out these 71 intertextual parallels from among the whole corpus, and insofar as the kind of intertextuality found in the particular passage selected here can be representative of the corpus as a whole, this would mean that the system is capable of providing an excellent starting point for research on such Sanskrit text. What the system could provide over and above these known 71 cases would of course also be of interest.

7.2 System Performance Relative to Benchmark

For evaluating how well Vātāyana assists the user in suggesting intertextual parallels, we can think of it as similar to a recommendation system. Out of all possible documents that can be returned for a given query document, some are "relevant" to the user and others are "not relevant". "Relevant" here would ideally be a judgment of many philologists thinking together, but for current purposes, given the early stage of development of this sort of system in this domain, I simply consider as "relevant" those parallels established in Yamakami's footnotes which can be classified as mid-sized quotation or paraphrase (= \cong \sim).

As for what constitutes being "returned" by the system, we must clarify two things: 1) which documents are assessed with Smith-Waterman scores, which is used for the primary ranking of results, and 2) how exactly results are returned. First, as described above in the algorithm section (§6.2), since TF-IDF and especially Smith-Waterman calculations take a non-trivial amount of time when performed at scale, Vātāyana generally limits how many documents are subjected to these more detailed comparisons. The exact extent of this limitation, however, is determined flexibly by the user according to how much time they are willing to wait. For the present 28,000-document corpus, setting the number of documents to be compared with TF-IDF (N1) at 15% of all documents (i.e., about 4,200) and the number to be compared with Smith-Waterman (N2) at a flat 200 results in a reasonable 2.5 seconds of

⁷²⁵ Compare the "positive-unlabeled" problem in machine learning.

⁷²⁶ For baseline data to be considered complete, the "closed-world assumption" must hold. This assumption stipulates that all relevant positives be known to be such, from which it follows that anything not known to be positive must be negative.

⁷²⁷ Other footnotes mainly focused on textual variants, philosophical explanation, and references to other sorts of texts.

⁷²⁸ The numbers for each type are 33 =, 12 \cong , and 26 \sim , respectively. These numbers are approximate insofar as the type judgments themselves are somewhat subjective.

wait time per query and (as it turns out) still fairly good results. I thus adopt this as the “shallow” search setting. In addition, one can also configure “deep” search settings; my experience so far suggests for this purpose testing 100% of all documents with TF-IDF (N1) and a flat 1,000 documents with Smith-Waterman (N2), which results in a much longer wait time of 13.5 seconds per query but only very slightly better results. This latter “deep” search mode can be appropriate either for occasional searches of particular interest in the web-app interface or, as done for the assessment presented here, in offline batch processing.⁷²⁹ In what follows, however, I focus only on the “shallow” search settings, which relies more heavily on filtering by topic to reduce computation time.

Second, we must also introduce a somewhat arbitrary distinction about what it means for a given result to be “returned”, since the system in fact returns all relevant results in a ranked list, primarily in order of the Smith-Waterman score but also complete with available topic and TF-IDF scores.⁷³⁰ The concept of “@K” used in calculating recall and precision is helpful here. Namely, we can conservatively assume that a user will not want to look at more than, say, a small number K results, and therefore, anything after position K on the results list will not be considered at all in assessment.⁷³¹ In this way, although it is in fact known which Smith-Waterman scores tend to correlate with interesting intertextual parallels, for this assessment, the Smith-Waterman scores have only relative, not absolute importance. Specifically, we will focus on the concept of “recall@K” where K=5, meaning that we will consider specifically whether the system can deliver up the benchmark's predicted intertextual links in the top 5 results of any given query.

The two distinctions of “relevant” and “returned” yield a confusion matrix (Fig. 14) with which we can classify any corpus document relative to the list of results returned for a given query.

⁷²⁹ Batch-processing code is shared in a Jupyter Notebook in the Vātāyana GitHub repo (“batch_processing.ipynb”). Web-app access to such functionality will not be developed until the proper infrastructure for such CPU-intensive user queries can be guaranteed.

⁷³⁰ This information is provided in the form of a dynamic table, which the user can quickly re-sort and search as needed. The formatting is provided by DataTables, a well-known table plug-in for JQuery.

⁷³¹ The careful and interested scholar may well defy this expectation in many cases, perhaps looking much further down the results list, resorting it according to other scores, and so on. But in most cases, this assumption is very likely a realistic one.

Benchmark Vātāyana	Returned (in top 5)	Not returned (in top 5)
Relevant (in Yamakami)	True positive (hit)	False negative (miss)
Not relevant (not in Yamakami)	False positive (false alarm)	True negative (correct rejection)

Figure 14: Confusion matrix for classifying cases by the features “relevant” and “returned”

That is, if a document is both relevant (i.e., present in the benchmark) and returned (by Vātāyana in the top 5 results of the relevant document query), this is a true positive (or “hit”). If a document is relevant but not returned in the top 5 results, this is a false negative (or “miss”). It is these two cases of (assumed) “relevant” documents that determine the calculation of recall. The basic measure of recall is calculated simply as: (# of returned items that are relevant) / (total # of relevant items). In turn, “recall@5” for a given query is measured as: (# of items returned among the top 5 that are relevant) / (total # of relevant items), which is just equal to (# of true positives) / (total # of relevant items).⁷³²

The complementary measure to recall is “precision”, which here is essentially a measure of how uncluttered with false positives the top of the results list is. That is, if there is only 1 relevant document for a given query, yet the results present that 1 relevant result along with 4 irrelevant ones, this potentially detracts from the usefulness of said presentation. Precision can be measured simply as (# of returned items that are relevant) / (# of returned items) if the number of results returned is inherently limited (e.g., via a raw score threshold). Alternatively, in the case of a very long results list, assessment can again be capped at K, as already explained for recall. Precision@K would then be measured as: (# of items returned among the top K that are relevant) / (# of items returned in the top K), which is just equal to (# of items returned among the top K that are relevant) / (K).

For two reasons, I will not calculate precision scores here (and hence also no score that is a composite of precision and recall, like F-score). The first reason is that intertextuality detection in a fixed and finite corpus is not in fact fully like a content recommendation system; whereas on the one hand, there may basically always be “relevant” next things for a commercial service like YouTube or Netflix to recommend to customers, on the other hand, given the nature of literary composition, in many cases there may simply not be any mid-

⁷³² For example, if there are 2 relevant documents for a given query in the benchmark, and if Vātāyana returns 1 out of these 2 documents among its top 5 results, this gives a recall@5 score of $1 / 2 = 0.5$ for this query. If the system returns 0 of the 2 documents, the score is $0 / 2 = 0$. If it returns both of the relevant documents, the score is $2 / 2 = 1$.

sized text reuse available to find for a given query. The main reason not to calculate precision, however, is that, for now, the benchmark is incomplete, in that it is not known for sure (as already explained to be expected, given any one scholar's particular focus) that Yamakami's footnotes give a properly complete account of all relevant parallels. As such, it is not immediately clear how to decide whether other possible parallels (i.e., parallels not already in the benchmark but additionally returned by Vātāyana, or those newly discovered through my own use of traditional means) are "relevant" or not. Again, "relevance" is in fact a matter of philological judgment, and it requires careful consideration of each individual case. I could of course just offer my own philological judgment, and I do this in Part 1 of the study. But including such personal judgments in this step here could easily introduce significant bias in favor of positive assessment of the system that I have just created. Hence I consider it better to defer this type of assessment for now. A third and final reason not to worry about precision here is that Vātāyana's results are not a simple list but rather are presented with the underlying numerical scores. As such, mere presence at the top of a results list does not necessarily constitute inconvenient clutter, since in many cases a visibly low score immediately makes clear what is not in urgent need of consideration.

In sum, we will focus here on the system's treatment of true positives (hits) and false negatives (misses) with the measure of recall@5, and we will not concern ourselves as much with the questions of false positives (false alarms) and true negatives (correct rejections) with any measure of precision. For the latter, we must instead content ourselves for now with a simple, conservative criterion for whether the system's additional results may also represent interesting philological leads, namely, a raw Smith-Waterman score over 50. Again, there may well be many other documents (or more loosely, textual passages) which in fact represent philologically significant intertextual elements despite not scoring high by this particular Smith-Waterman score, especially if we also take into consideration intertextual elements of the types ÷ and @. These are thus only approximate measures focused on certain types of intertextuality.

Finally, whereas in the above, I explained how to measure system performance on single queries, e.g. with recall@5, in fact more useful than this is measuring *average* recall over *all* pertinent queries. There are more sophisticated ways of calculating average recall, but in this rudimentary case, a simple average of individual query scores should suffice. However, there is a potential problem posed by cases of queries for which there are no relevant mid-sized parallels recorded in the benchmark. If such cases were rare, and if one were also calculating precision, one standard way of handling this issue would be to simply grant the system a recall score of 1 in such cases and let the complementary precision score capture to what extent false positives detract from system usefulness. In this case, however, since these cases with no relevant mid-sized parallels are in fact the vast majority, and since we are not calculating precision, I will simply exclude all such cases from consideration. The average recall@5 will thus be further qualified as giving information only about cases involving pertinent documents, i.e., those documents for which "relevant" (= in-benchmark) parallels are expected.

The full detail on individual recall@5 scores for NBhū query documents is given in Appendix 15. In that same table, juxtaposed against the recall@5 numbers for pertinent documents are also the numbers of novel cases with Smith-Waterman score over 50 for all NBhū query

documents. The sparseness of the latter cases serves as a rough graphical illustration of how well the few-and-far-between relevant cases are picked out.

The resulting average recall@5 score of 0.803 for these 41 documents suggests that, for any given document with known parallels of the types $=$, \cong , or \sim , Vātāyana reports 80% of its parallels. In other words, for any given known parallel, Vātāyana has an 80% chance of finding it. In addition, throughout these same 41 documents, the system returns 15 additional findings that are clearly worth further consideration on the basis of best-matching subsequences that can roughly be understood as being 50+ characters in length after difference penalties. In the remaining 100 documents without known parallels in the benchmark, a further 9 such novel findings are also reported.

8 Discussion

In order to pose the question of how well Vātāyana helps illuminate the intertextual parallels within NBhū 104–154, we limited our attention to a small but significant subset of those parallels (71 in number) which satisfy the following conditions: 1) earlier in time than the NBhū, 2) from texts of major importance to the NBhū, 3) noticed by Yamakami, and 4) of the types =, ≈, or ~. Even with these four conditions as caveats, the results are very encouraging. Not only does Vātāyana detect 80% of such known parallels of these important types, but it provides navigation and visualization tools for helping the human user to interact with and understand them. Moreover, using the same search criteria, it generates an additional $24/71 = 34\%$ of such parallels for consideration.

Of course, it is not just these overall numbers but much more the specific details of authors and texts detected — or not detected — which are of philological importance. These details are available in Vātāyana's output in the form of document identifiers (and indirectly also fulltexts) and the three scores with respective rankings.⁷³³ Upon inspecting these output details for NBhū 104–154 specifically,⁷³⁴ there are a few anecdotal observations one can immediately make about this passage, including some negative assertions:

- 1) Bhāsarvajña's specific engagement with PVA continues throughout the passage, and it draws on not just one but numerous portions of that work.
- 2) Bhāsarvajña exhibits comprehensive access to and engagement with Dharmakīrti's various works, but he appears to have a clear preference for the PVin.
- 3) There are a number of specific phrases that are strikingly identical with phases in the TUS, suggesting that Bhāsarvajña was indeed directly familiar with Jayarāśi.
- 4) Certain sections lacking intertextual parallels can be confirmed as representing relatively more original literary creation on Bhāsarvajña's part, although they still bear strong conceptual resemblance to other *pramāṇa*-type text.
- 5) No direct intertextual parallels can be found in this section for the relatively important writers Maṇḍanamiśra and Dharmottara.

Since we already have good philological knowledge of this passage, by carefully inspecting where Vātāyana fails, we can also come to understand some general drawbacks of the system's approach. Namely, there appear to be two clear caveats to bear in mind:

⁷³³ Such information is provided during individual queries, but the global perspective given here derives from the batch-processing output report currently available offline only; cp. footnote 729 above. Not yet actually implemented but computationally trivial to do will be to additionally provide in this report the respective fulltexts complete with visual highlighting of best-matching subsequences as in Vātāyana's docCompare mode.

⁷³⁴ The full output is provided in Appendices 16, 17, and 17D, all of which extend to the entire NBhū but therefore also include NBhū 104–154. Appendix 16 focuses on the particularly important prose or mixed texts by Dharmakīrti (PVin, PVSV) and by Prajñākaragupta (PVA).

1) Verse texts and aphoristic texts, insofar as they themselves do not quote and/or are not quoted at length, do not lend themselves as well to this sort of detection. Thus, if one verse text refers conceptually to another with quite different wording, Vātāyana probably will not be able to detect this connection. The practical upshot of this limitation is that, for important verse works like PV or ŠV, Vātāyana can still be helpful by making connections via respective commentarial literature. For example, parallels seem more forthcoming for PVin, PVSv, PDhs, NBh, and NV than they are for PV, VS, and NS, but if one has knowledge of the relations between these, one can still usually identify relevant portions of base-texts via the commentaries or other prose works drawing on them.

2) The system can also be fooled by overly large documents. That is, insofar as one relies on filtering by topic composition for “shallow” type search, a large document “wrongly” comprised of several different topical discussions will not be properly characterized and so may fail to be recognized as related to a given query document. Similarly, documents that are too small for similar but opposite reasons may also fail to receive helpfully detailed topic characterizations in the modeling process. Both cases are a function of document segmentation during preprocessing, and this can of course be further improved. Meanwhile, one known strategy for dealing with this is to simply rely less on filtering by topic composition by conducting slower “deep”-type searches that include more (or all) documents in TF-IDF comparison. Of course, one may also simply just use other tools; Vātāyana is only ever meant to complement other search procedures, not replace them.

I have made use of the particular section NBhū 104–154 because it is relatively well-understood and therefore useful for generating grounded confidence about this new tool and its approach. There is, however, of course nothing really special about this passage. For example, if we are interested in learning about Bhāsarvajña the thinker and writer more generally, there is no need for us to remain completely confined to NBhū 104–154. If we assume a relatively consistent approach to textual reuse on Bhāsarvajña’s part, it is reasonable to expect that Vātāyana will exhibit the same level of detection performance on the rest of the NBhū, as well. Since Bhāsarvajña is already known to have quoted extensively from authors and works for which additional textual testimony is sorely needed, such as Prajñākaragupta’s PVA, this alone could lead to numerous interesting studies.

Fortunately, given how Vātāyana has been designed, it takes virtually no additional effort to initiate a full sweep of the entire 600-page book; the only cost is computing time. An automatic search over the whole book with the same “shallow” settings outlined above (N1 = 15%, N2 = 200) on the same “priority” subset of texts (pre-NBhū) completes in approximately 95 minutes, during which time the system turns up a remarkable 987 cases of Smith-Waterman scores over 50. By surveying these results,⁷³⁵ we can again immediately notice some broad patterns:

1) Bhāsarvajña’s specific interest in and comprehensive knowledge of PVA, PVin, and PVSv continues to dominate nearly the entire book.⁷³⁶

⁷³⁵ See Appendices 17 and 17D.

⁷³⁶ As an example of the system’s more detailed output, in Appendix 16, I give three separate tables listing the 179, 106, and 129 hits for these three texts, respectively. Here, again, “hit” means simply a result with Smith-Waterman score above 50, but I also include the component topic and TF-IDF scores for reference.

2) The ŚV also continues to be an important touchstone for Bhāsarvajña. On the other hand, Maṇḍana still fails to show up, except insofar as they both quote the same texts (e.g., the NBh).

3) Whereas in NBhū 104–154 one could find passages that were vaguely reminiscent of TUS, the wider search through the entire NBhū turns up a few comparatively clear cases of text reuse. Excluding the numerous cases which can be identified as common quotation of third sources, there remain 3 such clear cases of textual reuse from the TUS into the NBhū.⁷³⁷

4) There is still no sign of other Dharmakīrtian Buddhist commentators like Dharmottara or Arcaṭa; seeming cases of parallels in the NBṬ and HBṬ are basically always common quotations from third sources, whether the NB and HB or otherwise (e.g., also NBh and NV).

One could just as easily do a similar search also including or alternatively focusing only on the near-contemporary works NM, VyV, NyKand, and NVTT. Or one could perform a search that includes all texts in the corpus.⁷³⁸ The number of possibilities for exploring even a single text in its numerous possible relations with other texts (or between its own various parts) is thus quite large. Moreover, insofar as Bhāsarvajña's commentarial intertextual style is not unique to him, it seems reasonable to expect similar performance by Vātāyana also on other works in this or even other genres of systematic Sanskrit text (*śāstra*), and then the possibilities for exploration become nearly unlimited. Within *pramāṇaśāstra*, I see as particularly interesting the possibility of exploring those later authors, such as Vādidevasūri, whose encyclopedic works are known to be full of valuable secondary testimonia. But the same treatment can be imagined for other genres, too, such as *alaṃkāraśāstra*. Whether the system will also work well on non-systematic literature, e.g. epic and belle-lettristic literature, is harder to say. However, the only real prerequisite for attempting such comprehensive computational inquiries of the intertextual parallel types =, ≈, and ~ with Vātāyana is that a given set of works be digitized with a similar level of structural markup and comparable content quality as maintained for the Pramāṇa NLP corpus.

Finally, it is worth stepping back to question the particular reliance on Smith-Waterman score exhibited here. There are many other possible measures that could be used to target

⁷³⁷ See specifically the following four document interconnections, the first two of which are discovered separately for technical reasons but are actually part of a single discussion. All three of these cases are discussed by Franco (1987) in his study of the refutation of skepticism in the NBhū.

NBhū_23,21 vs. TUS_134,i_134,iv	<i>sa tāttviko 'tāttviko vā? yadi tāttvikah? katham tad buddheḥ sandeharūpatā? tāttvikārthaḥ rūpatvāt ... athaikasya tāttvikatvam anyasyātāttvikatvam</i>
NBhū_23,21 vs. TUS_134,v	
NBhū_33,8 vs. TUS_116,i_116,ii	<i>yathā satyodakabuddhau nāsatyodakaṁ pratibhāti, anudakaṁ vā, evam asatyodakajñāne 'pi na satyodakaṁ pratibhāty anudakaṁ veti. svaviṣaye paryavasāyino hi buddhayah.</i>
NBhū_36,18 vs. TUS_074,v	<i>viparyaya jñānam svakāraṇasāmarthyāt tathāvidham utpannam, yadbādhakajñānotpādapratibandhakṛt taddhavāmso 'pi tathāvidha eva, pareṣṭasamyagjñānavad iti.</i>

⁷³⁸ I provide a sample of such a search in Appendix T9.

intertextual elements of interest. Even the other two scoring methods used here, topic similarity and TF-IDF similarity, which have already proven useful for progressive filtering of search candidates, could hold more potential. On their own, they do not yet seem to correlate well with any particular intertextuality phenomena of interest. Of the two, it stands to reason that topic similarity might be a predictor of semantic/conceptual resonance (÷) in particular, and some anecdotal evidence supports this. This is, after all, basically the intuition behind the document-to-document comparison by topic proportion implemented in, e.g., Metallō. More generally, there might be ways to train, e.g., a linear regression- or neural net-based classifier on these and other features in order to find other kinds of intertextuality we can characterize as something we are interested in.⁷³⁹ Gradually, with more and better-annotated data, many possibilities should open up.

The broader question is: Given some selection of text, what else can a computer system provide toward the end of facilitating deeper understanding? We are already accustomed to readily consulting dictionaries, commentaries, and secondary literature, insofar as a relevant entry or corresponding discussion exists. Now we are also bringing corpus linguistics and machine learning to bear on the task of generating additional primary reading suggestions. Among such intertextual connections, mid-sized quotation and paraphrase may be the single most valuable, lowest-hanging fruit for understanding a given text in context, but it is certainly not the end of the story. Moreover, it is clearly not only the “document”- or passage-level of analysis that matters, but also smaller and larger features, like individual words or the structures of entire chapters and books. Representation of such artificial “documents” in terms of continuous numerical scores, as done here, is quite new in the study of historical languages, and there’s no reason to expect it to be able to do everything. However, it also seems undeniable now that it does have practical promise, and I look forward to seeing how it can be used in complementary fashion with other approaches.

⁷³⁹ For the former, cp. Bär, Zesch, and Gurevych 2015.

Conclusion

Among genres of Sanskrit literature, systematic literature (*sāstra*), and specifically that which deals with different philosophical views (*darśanas*) on such abstract topics as epistemology, logic, and metaphysics, makes for extremely challenging reading. As seen in the present interdisciplinary study on a controversy primarily between the Nyāya and Dharmakīrtian Buddhist text traditions, successful philological understanding is dependent partly on the state of the transmitted text and partly on the ability of the reader to contextualize what these peculiar speech acts were meant to do.

On the one hand, ensuring a good-quality text is a function first and foremost of high-quality philological input, especially in the form of properly preserved manuscripts. For a text written by a certain author at a certain time, it is proper to assume a single original manuscript, or archetype, from which other “witnesses” descended through a complex historical process of copying and, inevitably, transformation. Since perfect witnesses are virtually never available, an editor must reconstitute the best possible text on the basis of whatever imperfect witness material can be gathered with reasonable means. Fortunately, there are good text-critical principles which can guide the reconstruction process, but this process remains as much art as science. This is because one cannot edit a text well without qualitative understanding of it, and in the case of tersely stated polemical philosophy, understanding the text means grasping the dialectical aim of any given argument as well as that of numerous arguments taken together, so as to be able to notice, for example, when a missing negative or an extra pronoun would fundamentally distort the author's intended overall meaning. Only with such holistic understanding can one properly use text-critical principles to not only choose optimal readings but also present the text in an optimally helpful manner for one's intended audience, e.g., through appropriate orthography, punctuation, annotation, and even translation.

This is all to say, even if there exist additional tools for helping the scholarly editor accomplish the task of presenting a text, none of them can supersede the more basic requirements of well-preserved witnesses and contextual understanding. Nevertheless, those additional tools can do a better or worse job of facilitating this philological work, and in this respect, I hope that the current study can have contributed by showing a few useful ways forward. When previous translation material exists but is not clear in its relation to the underlying original-language material, we can clarify that relationship through simple text alignment, as done here for Joshi's translation. When we have good manuscript witnesses at our disposal, like P1 and V, good collation algorithms and research environments, such as those offered by Classical Text Editor and Brucheon (and also Saktumiva), can make it more worthwhile to completely transcribe these sources so as to be more thorough in our exploration of variant readings. Similarly, good editing software, again like Classical Text Editor, can support us in iteratively working toward our improved understanding and presentation of the text. And lastly, when understanding of a systematic work is particularly dependent on contextual knowledge of other works in the same or related genres, secondary scholarly literature certainly has its role to play, but alongside this, it is also possible for tools to more directly deliver up to the reader relevant primary reading suggestions, as systems like Vātāyana (and also BuddhaNexus and Tesserae) are now able to

do. Such tools can also enhance scholarly presentation of such intertextual context for the benefit of other readers.

For some, such as myself, such matters of philological method can be even more interesting than philological content. The current debate on the nature of the whole, for example, initially drew me in via my interests in soteriology, existence, and truth, but in the end I think it served primarily as a properly challenging context within which to explore my now dominant methodological interests. That is, in the end, I find most personal value in the relatively smaller set of high-level ideas the two main sides of the debate implicitly agree upon. Both Nyāya and Dharmakīrtian Buddhists agree that it is of paramount importance to understand the knowing Self, and especially what it is not. They also agree that distinguishing between various means of knowing, such as perception and inference, and understanding the nature of each, including what kinds of objects each is capable of apprehending, is important for developing soteriologically effective knowledge concerning the Self. The myriad finer details, on the other hand, I find valuable mainly as an exercise in careful understanding, and because they create opportunities for interesting methodological innovation. Accordingly, I know that specialists in this area of Indian philosophy likely feel the need for greater analytical detail regarding the various views involved here than I have been able to provide (e.g., in sections §1.3 and §4). Relative to the goal of innovating in Sanskrit digital methods, however, this seemed to me like the appropriate depth of treatment.

Namely, I have tried here to make the most of a situation in need of some philological improvement, using it as a case study for an experimental text-mining system. Alongside what is possible through manual search methods (e.g., with a text editor like BBEdit) and through curated corpus annotations (e.g., in the DCS), I've explored what success in information retrieval can be had on the basis of using NLP methods on large amounts of unanalyzed Sanskrit text. The main result is the Vātāyana algorithm and associated interface, which quantitatively characterizes portions of text, especially using one particularly elegant and efficient modeling method, Latent Dirichlet Allocation (LDA) topic modeling, so as to on that basis discover patterns of verbatim and non-verbatim text reuse within a corpus. The connections found thereby can then be explored in an online research environment, and insights can be shared with others in the form of live hyperlinks to the same online space, e.g., in footnotes. In turn, the algorithm itself was validated on the basis of just such scholarly annotations as are usual in the field: footnotes drawing attention to intertextual parallels in related works.

With any properly prepared corpus integrated into this system, one can now *begin* study of a brand new text with instant insight into intertextual connections relevant for contextualizing and better understanding one's object of study. Of course, the quality of existing print editions (and of course also of the digitizations that follow from them) can often leave much to be desired. Nevertheless, systems like Vātāyana (or also e.g. BuddhaNexus) may nevertheless be able to help even at the level of such basic philological work, since their machine learning-based methods can see past relatively small textual idiosyncrasies and draw out more important patterns of interconnected meaning. In this interdisciplinary project, where the goal is also to improve the text of the NBhū, I've tried to present an example of just that. The lesson is that even texts in imperfect states of editing

can contribute meaningfully to the functioning of such systems, which can then be used to improve those same imperfect texts, in a bootstrapping fashion.

The extent to which this system can now generalize to brand new data in this way depends mainly on whether that data can be properly prepared. Namely, there are three basic principles: 1) machines must have access to both continuous text (i.e., intact words and sentences) and useful structural markup (e.g., verse, paragraph, and section identifiers); 2) these two kinds of data should not be allowed to interfere with each other; and 3) neither should other material (i.e., further annotation) be allowed to stand in the way of automatic processing. If these basic guidelines are followed, digital versions of texts can continue to evolve with many additional layers of information, such as can be encoded in TEI-XML, and still be easily slotted into such systems as *Vātāyana*, if one has anticipated such a need for NLP-ready linguistic data. As more such systems become available to work with, I believe that these principles of what constitutes clean data for Sanskrit NLP will become more familiar, and that projects will converge toward interoperability, and that data and algorithmic improvement will proceed in an iterative, dovetailing fashion.

To this end, in addition to text mining with *Vātāyana*, I've also tried to showcase other projects in this study which demonstrate the potential benefits of properly clean data and tools built to operate at scale. The Skrutable toolkit, produced in the natural course of building the *Pramāṇa* NLP corpus on which *Vātāyana* is based, is made for working with real-world data. Its transliteration and metrical scansion functionalities are designed to work on millions of words at once and to fail gracefully in the case of bad data, calling our attention to issues in ways that help us solve them. On the other hand, in the case of good data, its being able to identify meter for thousands of verses at a time can open up entirely new avenues of research and also lead to next-generation, machine learning-based solutions for this task, which can be even more fault-tolerant.⁷⁴⁰ Similarly, the toolkit's word segmentation functionality, while nothing more than an easy-to-use wrapper for the neural net-based tool by Hellwig and Nehrdich (2018) developed on the basis of Hellwig's unparalleled effort in clean and structured corpus building, also enables and encourages new kinds of work on million-word corpora. And finally, the Pandit Grapher tool, also developed in the course of this research, similarly demonstrates the usefulness of well-structured data, be it textual, prosopographical, or otherwise.

This hybrid project has attempted to marry the depth of traditional philology, including edition, translation, annotation, and some philosophical explication, with the breadth of corpus-based data science, including linguistic modeling, information retrieval, and visualization. I believe that the power of the latter can vastly improve execution of the former in certain respects, and also that one needs to attempt both in order to fully appreciate the issues that arise at their intersection. Whether or not my own combination of the two has achieved the best possible philological result, I hope that those after me will be able to enjoy using these tools to produce engaging forms of work that would not have been possible otherwise.

⁷⁴⁰ See Neill (2022, forthcoming) for more detail on meter identification at scale.

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Appendices

In the naming of the below appendices, the letter "D" indicates a digital appendix, presented only in electronic form. These digital appendices may stand alone (e.g., 4D) or they may be closely associated with a print appendix (e.g., 1 and 1D).

Appendix 1: Correspondence of Joshi 1986 to Yogīndrānanda 1968

The English translation in Joshi's 1986 "A Critical Study of the Pratyakṣa Pariccheda of Bhāsarvajñā's Nyāyabhūṣaṇa" covers very nearly all of the NBhū Pratyakṣa Pariccheda except for NBhū 104–154, which is treated only very cursorily in the study's fifteenth and final chapter. That is, Joshi did in fact translate virtually all 139 pages of NBhū 1–104 and 154–189, leaving out only a few words. However, his reordering of material into thematic chapters and his frequent insertion of his own words, all with minimal marking of position within the Sanskrit text, makes his translation difficult to use as a reading aid alongside the Sanskrit. To remedy this, the following simple table details the bi-directional relationship between Yogīndrānanda's 1968 Sanskrit text and Joshi's 1986 English translation.

NBhū 1968 pages	Joshi 1986 chapter	Joshi 1986 chapter	NBhū 1968 pages
1–10	3	3	1–10
10–11	4	4	10–11, 71–79
11–12	5	5	11–12, 33–43
12–24	6	6	12–24
25–33	7	7	25–33
33–43	5	8	44–62
44–62	8	9	62–71
62–71	9	10	79–83
71–79	4	11	84–94, 97–100
79–83	10	12	100–104, 170–187
84–94	11	13	94–97
94–97	13	14	154–170
97–100	11		
100–104	12		
104–154	—		
154–170	14		
170–187	12		

Appendix 1D: Full-Text Alignment of Joshi 1986 to Yogīndrānanda 1968

In addition to the tabular overview provided in Appendix 1, a full-text alignment of Yogīndrānanda's Sanskrit text and Joshi's English translation is also in progress. So far, this has been completed for chapters 3–7 (52 out of 139 pages). The below image is a static sample of the ongoing alignment project.

A	B	C	D
1	NBhū 1968	Transl. #	Joshi 1986
2			<p.53> Chapter III 1 Bhāsarvajña's Introductory Remarks
3	[1,4][NSā] prañamya śambhum jagataḥ patim param samastatattvārvāvidam svabhāvataḥ / śīṣuprabodhāya mayābhidhāsyate pramāṇataḍbhedaṭadanyalakṣaṇam //	2	Mangala Verse in the Nyayasara: In the mangala verse of the Nsa, BSJ bows down to Sambhu, the great lord of the world, who spontaneously knows the true nature of all the entities. He says that he proposes to describe in the NSa the definitions of Pramana (a means of right knowledge), of its varieties (Pratyakṣa etc.) as well as the definitions of categories other than Pramana, viz. Prameya, Samsaya etc. in order to impart instruction to the beginners.
4	[1,7] umāpatim sarvajagatpatim sadā prañamya nirvāṇadam īśvaraṁ param / gurūṁś ca sarvān anu mokṣasiddhaye pravakṣyate nyāyasadarthaśaṅgrahaḥ //	3	In the mangala verse of the NBhu also, having first bowed down to Lord Śiva, the bestower of eternal bliss and then (anu) to all the teachers, Bhasarvajna undertakes to write a commentary on the Samgraha, a gleaning of the real categories <p.54> of the Nyaya, that is to say, a survey of the Nyaya philosophy (i.e. the Nyayasara), for attaining salvation (or for establishing the true state of salvation).
	[2,2] tasyādau 'prañamya' ityādi vākyam maṅgalārtham sambandhaprayojanābhidheyapratipatty artham ca. prañāmakṛtena hi maṅgalenādharmapratibandhakenādhār mamūlā vighnavināyakāḥ protsāryante, tataḥ śāstraparisamāptir ity arthavān prañāmaḥ. yatra tu na samāptis tatra prañāmasya asamyaktvam anumeyam karttur adharmabāhulyam vā. na caivam asāmarthyam eva prañāmasya, anyatra sāmarthyāt. na hi		Mangala as a means of completion of the work: Commenting on the mangala verse of the Nyayasara, Bhasarvajna says in the Nyabhusana that the sentence, "Having bowed down to Śambhu..." etc. is meant for an auspicious commencement of the treatise as well as for the knowledge of Relation, Purpose and Subject-matter of the same. The nature of Relation etc. will be clarified in due course. While showing the importance of mangala, Bhasarvajna says that indeed the major obstacles resulting from demerits of an author could successfully be removed by the performance of mangala accompanied by an obeisance. It wards off the potential influence of demerits and consequently helps to bring a treatise to completion. Thus a mangala performed along with obeisance serves a special purpose and so it is meaningful. But where a work is found to have remained incomplete, it could be presumed that either the mangala must not have been appropriately performed by the author or he must have committed so many misdeeds that they could not all be removed by mangala. The fact that a work is found incomplete in spite of its having a mangala verse in the beginning does by no means prove that the mangala is always in<p.55>capable of removing obstacles, since it is seen to have been capable in this respect elsewhere. Though a hundred pots, full of water, may

For the most current version of the full electronic table, see:

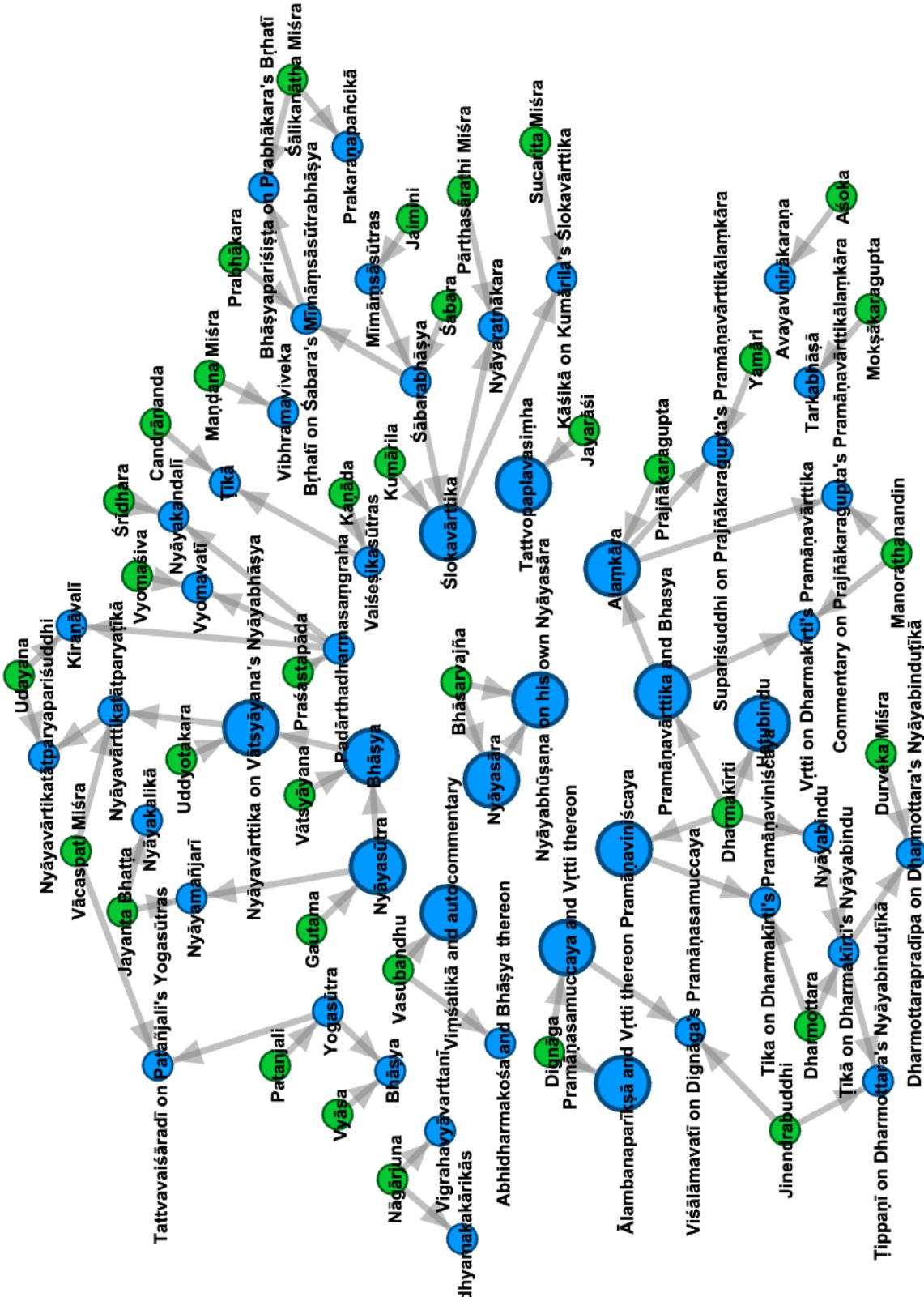
https://github.com/tylergneill/nbhu_materials > "align_nbhu_pratyakṣa".

Appendix 2: Prosopographical Relations Important for NBhū 104–154

The below network graph is meant as a visual aid to help more easily grasp the number of direct textual sources most important for NBhū 104–154. Those sources' respective interrelations and further connections are also presented for the sake of contrast. The image was produced as a static excerpt of an interactive graph file, for more on which, see Appendix 2D below.

In the figure, blue nodes indicate works, and green nodes indicate authors. Edges are directed, as indicated by arrowheads, with author-to-work lines indicating authorship, and work-to-work lines indicating traditional base-to-commentary relationships, all as documented in the PANDiT database, itself based on the digitized bibliography of Karl Potter's Encyclopedia of Indian Philosophies. The manually-added heavier weighting of certain work nodes indicates the presence of intertextual reuse into NBhū 104–154 as detected with the Vātāyana system described in Part II of this study.

One could also create a more interesting kind of intertextuality graph based on actual *amounts* of detected intertextual reuse. For example, one could weight graph edges more heavily according to the extent of intertextual borrowing. In the course of writing this dissertation, this actually became possible to do for Sanskrit material, first with the release of BuddhaNexus, and again with the development of Vātāyana. For now, the idea remains a desideratum due to lack of time.



Appendix 2D: Command-Line Tool “Pandit Grapher”

The software used to produce the network graph in Appendix 2 can be found at https://github.com/tylergneill/pandit_grapher, as can all individual files involved in the process (> “static” > “NBhu_presentation”).

This software uses information downloaded from the online PANDiT database (<http://www.panditproject.org>) along with the Python library “networkx” to produce a GEXF (Graph Exchange XML Format) file corresponding to a subgraph centered on the user's chosen nodes. This GEXF file can then be imported into Gephi (0.9.2) and saved in the GEPHI file format, which allows it can be interactively and iteratively manipulated into a form such as seen here. Finally, static images can be captured as screenshots.

Appendix 3: Previous Suggestions to Improve Text of NBhū 104–154

The following table presents previous improvements to the text of NBhū 104–154 relative to the 1968 printed edition as suggested by Yamakami 1999 or, in a few cases, by Sen 1991. For the most part, I did not consult these previous suggestions during my own process of editing, but only afterward as a check on my own work. I did indeed then find a few valuable suggestions that improved my own presentation; such cases are noted in footnotes to the translation.

This table highlights only improvements on the *akṣara*-level and significant punctuation changes. It does not include the following:

- 1) cases in Yamakami 1999 where a non-existent problem was addressed (e.g., based on misreading the printed edition);
- 2) cases in Yamakami 1999 of merely standardizing orthography or fixing obvious typos;
- 3) cases in Yamakami 1999 where additional variant readings are merely noted in a footnote without suggesting any change to the text, provided that indeed no improvement was necessary; and
- 4) cases in Yamakami 1999 (I suppose that there are some but have no practical way of knowing how many) where a variant reading might be reflected only in the translation and without any footnote.

On the other hand, it does include the following:

- 1) cases in Yamakami 1999 where a variant is noted in a footnote and the text in fact needs improvement but then the variant is not actually taken as the preferred reading, whether in the footnote itself (e.g. with the verbal construction *-をとる* “take X”) or as reflected in the translation (i.e., even after mention of the relevant correct variant in the footnote, the translation instead wrongly reflects either another manuscript reading or the edition reading instead, which I attempt to clarify here); and
- 2) cases in Yamakami 1999 where a correct variant reading is explicitly chosen in a footnote (e.g., with *-をとる* “take X”) but then for some not reflected in the translation (e.g., where the “*nanu ca*” on 104,7 is not translated, unless if by the header with Dharmakīrti’s name); in such cases, I give the footnote priority.

In sum, I have not constructed a full critical apparatus of variants on Yamakami’s behalf but rather have only highlighted his most relevant observations concerning useful improvements to the text, especially as indicated in his footnotes. Otherwise, without such a summary, the information is virtually inaccessible to most scholars (being in the footnotes of a hard-to-find Japanese-language book), and it will be less clear to what extent my own work on NBhū 104–154 was necessary. The latter doubt can be resolved by comparing this table against the one in Appendix 7, “Highlighted Improvements to Text of NBhū 104–154”, which is over twice as large. Also, as already stated in footnote 56 above, in close to half of cases presented here (63 out of 143), Yamakami’s suggestion either must be rejected or it must be accepted for reasons substantially different than those presented.

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
S 9	122,14	tathaivābheda	tavaivābheda		
S 10	124,13–4	evopalambān na vyavahāra	evopalambāc ca vyavahāra	cj. agree on deletion of E cj.-na, reject cj. ca, instead choose V sad (over P tad)	
S 11	134,2	yasyāpratyakṣa	yasyāpratyakṣa	cj.	
S 12	152,8–10	¶ yena...nānyatreti dharmādi... dharmādi...	yena...nānyatreti. ¶ dharmādi...	different paragraph break	
S 13	152,22–3	nityam sattvam asattvam cetyādi...	"nityam sattvam asattvam ca" ityādi...	quotation marks	agree, but also emend ca to vā
1	104,6	cāsthūlasyā	—	merely noted V reading	disagree with decision not to take V (definite eyeskip in P)
2	104,7	(nanu ca)	nanu ca	confirmed MSS reading	agree, but only if also taking nearby V material for P eyeskip
4	104,8	tathā sati	—	merely noted MSS reading	disagree with decision not to take MSS tathāsti
5	104,14	yadvad atra	dvi	V	agree to improve, but disagree with choice of V dvi, instead take P dvitṛa
7	105,2	tato	tatra	V	
22	108,1	evam	eva	MSS	
35	109,13	lakṣaṇā grāhya	lakṣaṇagrāhya	MSS	
44	111,26	cāvyāpyavṛttive na	cāvyāpyavṛttivena	MSS	agree, but also remove ca (V)
45	111,26–7	raktāraktatvam	raktāraktatvam	MSS	
46	111,27	virudhyate	na virudhyate	MSS	
48	112,3	vिशयप्रसाङ्गः	vिशयत्वप्रसाङ्गः	MSS	
52	112,18	tatotpannam	tatotpannam	MSS	
53	112,20	pararūpa	paramāṇurūpa	MSS	

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
62	113,15	vicitra	—	merely noted MSS reading (?)	translation cannot show whether MSS citra taken or not
63	113,16	ekalena	ekena	MSS	
64	113,20	sarvathā	Samarthana	V	disagree with decision to take V (and nevertheless omit in translation)
70	114,3–4	ākārajanaka	ākārajñānajanaka (x2)	MSS	
72	114,7	yato nīlādyākārah̄	yato 'yam nīlādyākārah̄	MSS	
83	115,12	anekjñānānām	anekākārajñānānām	V	disagree with decision to take V
85	115,16	niśprāmāṇikī	niśprāmāṇikā	em. (MSS misread?)	partly agree, instead take actual MSS niśprāmāṇikā with short vowel
86	115,18–9	bhinnātmano	abhinnañātmano	MSS	disagree with decision to not take E's emendation
88	115,20	tasyābhinnātmasvarūpa	tasyābhinnasvarūpa	V	
89	115,21	svātmasaṃvedana	ātmasaṃvedana	MSS	
92	115,21	pūrva	pūrvadṛṣṭa	V	disagree with decision to take V
94	116,2	anyasaṃvedane	—	merely noted MSS reading (?)	translation cannot show whether MSS anyavedane taken or not
97	116,4	pramāṇatvena	pramāṇena	MSS	
103	116,13	śāstram	tattvam	V	disagree with decision to take V
108	117,14	tadanyāpratipatrā tadrūpa	tadanyāpapannāv atadrūpa	MSS (misread)	agree to improve, but actual MSS reading is anyāpratipattāv
112	118,6	yathā bhavatām sāṃvyāvahārika	yathā ca bhavatā saṃvyavahāra	MSS	
114	118,11	'kāśyam	'prākāśyam	MSS	agree, but actual MSS reading of course has short pra

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
115	118,16	svātmāniṣṭham	—	merely noted P reading	disagree with decision not to take P svātmāniṣṭham
117	120,15–6	bhinnānekākāra	'nekākāra	MSS	
120	121,10	arthāntarātvānarthāntaratvam vā	arthāntaratvam anarthāntaratvam vā	MSS	
122	121,19	bāhyārthena hi	bāhyārthena saha	MSS	
124	121,22	avayavibuddhyeti	avayavibuddhyā	MSS	
125	122,3	avayavānām eva sattvam	avayavānām evāsattvam	V	disagree with decision to take V
126	122,6	puruṣāntarājñānam	puruṣāntaram jñānam	V (misread P)	disagree with interpretation of P (whose puruṣāntarājñānam is best) and decision to take V
127	122,9	bhinnākāra	bhinnākārah	MSS	
128	122,10	vिशयत्वान् ना भेदा इति चेत्, ना	vिशयत्वाद् इति चेत्, ना	V	
129	122,14	tathaiवाभेदा	tavaivābheda	MSS	
130	122,16	anupapatteḥ	anupapannam	V (misread P)	agree to improve, but instead take actual MSS reading (incl. P!) anupapannah
132a	122,16–7	apakarsaṇena	apakarṣṇe	MSS	
132b	122,17	buddhir anupapanney nirastam	buddhir anupapattiḥ ity apāstam	V (misread P)	agree to improve, but V actually has same reading as P, which should be taken
133a	123,3	vिशयिभावसमीक्षा	—	merely noted MSS reading	disagree with decision not to take MSS viśayibhāva iti samīkṣā
135	123,8	vṛttyanupapattir	—	merely noted MSS reading	disagree with decision not to take MSS vṛttyanupapatteḥ

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
137	123,12	pradīpavād	—	merely noted V reading	disagree with decision not to take V prabhāpradīpavād
146	124,10	apatanam	apatanam	cj.	disagree with decision to conjecture
148	124, ¹³	evopalambhān na vyavahāra	evopalambhāt tadvyavahāra	V (misread MSS)	agree to improve, but disagree with interpretations of MSS, instead take V sadvyavahāra over P tadvyavahāra
154	126,1	iti ekasyaiva	iti ṩekasyaiva	different paragraph break	
158	126, ¹⁰	tattvādi	tantvādi	MSS	
160	126,18	avayavābhāvāc	avayavyabhbhāvāc	MSS	
168	127,22	jātiśabdagrahaṇam	jātibhedagrahaṇam	V	
169	127,23	vanasamjñā saṃketād	vanasamjñāsaṃketād	different sentence break	
171	128,4	tas्यावयवविषयत्वे	tas्यावयवविषयत्वे	MSS	
172	128,8–9	senādir	senāder	V	
173	128,11	antena na hi avayavā api	antena hi b(a)havo	V (misread)	agree to improve, but disagree with interpretations of MSS, instead take composite anena hi bahavo 'pi from V anena hi bahavo and P antena na hi vayavo 'pi
174	128,23	api caite	api naite	MSS (misread P)	agree to improve, disagree with interpretation of P, instead take P api ca maite over V api ca naite
180	129,15	abhinnapratyayo na	abhinnapratyayo 'pi na	MSS	
181	129,20	kim atrāviruddham	kim atra viruddham	MSS	

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
193	131,4	ṣaḍamśatā ? tadaṁśa	ṣaḍamśateti svavacanavirodhā tadaṁśa	V	disagree with decision to take V repetition
202	132,13	tathā ca vicārayataḥ	yathā ca vicārayataḥ	MSS (misread P)	agree to improve, but disagree with interpretation of P (actually tathā), instead take yathā only from V
204	132,16	bhṛāntyaiva	—	merely noted MSS readings	disagree with decision not to take V bhranter
214	133,18	yadi na bhedagrāhi tadaḥhedat	yadi na bhedagrāhi, tadā	V	
218	134,2	yasyārthaḥpratyakṣa	yasyāpratyakṣa	emends with NVV (MSS misread)	agree to improve, but disagree with interpretations of MSS, instead simply take V (om. artha) over P (has artha)
219	134,5	pratyakṣenā paścād	pratyakṣenā dṛṣṭasya paścād	V	
220	134,7	utpādajakatva	utpādakatva	emends with NVV (MSS ignored?)	agree to improve, but disagree with basing decision on NVV instead of MSS (all correct)
222	134,12	cāpratyakṣopalambhasya	cāpratyakṣārthopalambhasya	V (misread E and P)	agree to improve, but disagree with interpretation of E and P as cāpratyakṣas�opalambhasya (P actually has same correct reading as V)
229	135,12–3	bijādīdharmādi	bijādyadharmādi	MSS (misread?)	agree to improve dharma to adharma, but disagree with interpretation of P (actually same as E) and with decision not to also remove first ādi; i.e.,

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
					just take V
233	135,19	anīṣṭāpattiḥ	anīṣṭā	MSS (misread)	agree to improve, but disagree with interpretation of MSS, instead take MSS anīṣṭā (aspirated)
235	135,24	dhānānayana	dhānanayana	cj.	disagree with decision to conjecture (ā upasarga is necessary for meaning)
237	136,4	na svasamviditatvād	rāśvasamviditatvād	MSS	disagree with decision not to improve, instead take MSS svātmadāyakatva
239	136,10	svātmadīpakaṭva	—	merely noted MSS reading	disagree with decision to change punctuation (see above note on svātmadīpakaṭva)
240	136,10	bhavaḥ, svātma...pi yathā	bhavaḥ svātma...pi yathā	different sentence break	disagree with decision to change punctuation (see above note on svātmadīpakaṭva)
243	136,18	kevalasyāpy arthassmarañāt	kevalasyārthasya smarañāt	V (misread)	agree to improve artha to arthasya, but disagree with interpretation of V as omitting api, instead take actual MSS kevalasyāpy arthasya smarañāt
244	136,18–19	anumāya	abhidhāya	V	disagree with decision to take V
245	136,21	tathāpi	tasyāpi	MSS	

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
246	136,22	iñāne	vijñāne	P (misread V)	agree to improve by taking P (translation cannot sure whether taken or not), but disagree with interpretation of V (actually same as P)
253a	137,17	svasam̄vedanatvān	svasam̄vedyatyatvān	V	agree to take V, but disagree with implication that P does not also read correct svasaṁvedyatvān
253b	137,18	svasam̄vedakāṇ	svasam̄vedyatyatvāt	V (misread)	agree to improve, but disagree with portrayal of V as again reading vedyatyatvāt, instead take actual V vedyam over P vedyatvam
254	137,20	sat sarvam	tat sarvam	MSS	agree to improve, but disagree with interpretation of P (actually same as E), instead take only V
258	138,3–4	athāsvātmavedanām	atha svātmavedanām	MSS (misread P)	agree to improve, but disagree with interpretation of V (actually svātmāni svasaṁvedanotpādane), instead take only P
259	138,5	svātmasaṁvedanotpādane	svātmāni saṁvedanotpādane	MSS (misread V)	agree to improve, but disagree with interpretation of V (actually sahakāri nāpeksate) as same as P (sahakārināpeksate), instead take only V
260	138,5–6	sahakāriṇam apeksate	sahakāriṇāpeksate	MSS (misread V)	agree to improve, but disagree with interpretation of V (actually sahakāri nāpeksate) as same as P (sahakārināpeksate), instead take only V

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
262	138,9–10	tathābhūtasyaiva utpattih	tathābhūtasyaiva tata utpattih	V	
264	138,10	iti,” na	iti,” tan na,	MSS	
265	138,10–11	anyatas	tatas	PVA (misread)	disagree with interpretation of PVA (actually no second tatas) and with decision to emend
267	138,12	asamvedyam	asvasañvedyam	V	disagree with decision to take V
269	138,13–14	tathā dīpo 'pi syād atha dīpo nāpeksate, ghaṭo py evam syāt, evañ	tathā dīpo 'py anyam apekṣeta ghaṭo 'pi vā pradīpavac	merely noted V reading (misread)	disagree with decision not to take V as well as with interpretations of E (actually has apeksate) and V (actually has wrong ghaṭe), instead take corrected V reading (as given)
271	139,8	vā hetor	vāhetor	MSS	
272a	139,9	sam̄bhavāt	sam̄bhavah̄	PV, PVin	agree to improve, but disagree on decision to omit mention of MSS (same reading)
272b	139,9	sam̄bhavāt //	sam̄bhavah̄ //” iti bādhakam bhavata eva syāt	merely noted MSS reading	disagree with decision not to take MSS
274	139,20	iti cet, yad eva devāryair	iti vedyād evācāryair	V	agree to improve devāryair to ācāryair with V, but disagree with decision to also take V vedyād, instead keep P cet yad
277	139,22	ity uktam, višeśaviruddhhasyādūṣaṇatvena vakṣyamāṇatvāt, anaikāntikatva	ity uktam višeśaviruddhhasyādūṣaṇatvena vakṣyamāṇatvāt, anaikāntikatva	different sentence break	disagree with decision to change punctuation (related to missing additional improvement of ity uktam to ity ayuktam based on MSS)
279	139,24	višeṣaṇam	hetuvišeṣaṇam	MSS	

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
286	140,13	tadākāratve	atadākāratve	P (misread)	disagree with interpretation of P (actually just tadākāratve like V and E) and with decision to take this, instead keep actual MSS
287	140,16	svasantāne	svasamtāne 'pi	MSS	
290	140,24	gr̥hitatābhīmānaḥ	gr̥hitābhīmānaḥ	MSS	
291	140,25	svapratibhāsenārtha	svapratibhāse 'narthē	em. (MSS misread)	agree with decision to improve, but disagree with interpretation of MSS (actually all have <i>akṣara</i> na with short vowel), instead just take MSS
292	140,25–6	varttanā bhrāntir	varttanād bhrāntir	MSS	
294	141,3	na tadutpannasya	tena tadutpannasya	P	
295	141,7	svayamvedyatvam	saṃvedyatvam	P	
297	141,10	jñānāntaram vyavasthāpakam	jñānāntaravyavasthāpakam	P	
299	141,21	tadvantau	tadvat tau	P (misread)	disagree with interpretation of P (actually tadvantau) and with decision to take this, instead keep actual P
306	142,7	āpatitah	āpādaḥ	V (misread)	agree to improve, but disagree with interpretations of V (actually āyātah) and of P (actually āyātavaḥ), instead simply take V
308	142,10	jñānasamvedane	jñānamātrasamvedane	V	disagree with decision to take V
310	142,13–4	jñānākāramātra	jñānamātra	V	disagree with decision to take V

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion (if not simple agreement)	Judgment of Suggestion (if not simple agreement)
311	142,16	numāne bhedavittyā virodho	numāne bhedavittyā virodho	P (misread this and V) but disagree with interpretation of MSS (P actually numāne vittyā and V actually numānotthānavirodho), instead just take V	agree with decision to improve, but disagree with interpretation of MSS (P actually numāne vittyā and V actually numānotthānavirodho), instead just take V
319	143,22	arthāntarālambanatvābhīdhānād	—	merely noted V reading	disagree with decision not to take V arthāntarālambanatvābhīdhānād
320	143,24	sālambanatvam̄ vā	nirālambanatvam̄ sālambanatvam̄ vā	V	
322	143,29	bāhyāsiddheḥ	bāhyāsiddheḥ	MSS	
328	144,9	ayogāt.॥bāhyārtha	ayogāt.॥pramāṇābhāsena tatsiddhau bāhyārtha	V	
329	144,10	pramāṇābhīrhāntāv asya	pramāṇābhīrhāntatvasya	MSS	
330	144,14	śuktikāviṣayatvenaiva bhīrhāntatvam̄	śuktikāviṣayatvenaiva abhrāntatvam̄	cj.	disagree with decision to conjecture, instead improve following bhrāntatvam by taking MSS viṣayatvena tv abhrāntatvam
338	145,6–7	tadanumānasya	tadviṣayatvād anumānasya	MSS	
340	145,10	paramārthaśadbhīḥ	paramārthaśadbhīḥ	MSS	
343	145,16	sādhanavyavahāraḥ	sādhyasādhanavyavahāraḥ	V (and PVA)	
344	145,16	kimcid atra	na kimcid atra	V (and PVA)	
345	145,19– 20	tadasiddhau ca na tatprāmāṇyam	tatsiddhau ca tatprāmāṇyam	MSS (misread V)	disagree with interpretation of V (actually has na) and with decision not to take E's two conjectures against P, instead keep E readings

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
348	145,25	param bhaviṣyataḥ tadā	bhaviṣyati param tathā	PVA (V ignored?)	agree to improve, but disagree with decision to take unmetrical PVA, instead just take V
351	146,8	pūrvam bhedagrāhakam	pūrvabhedagrāhakam	MSS (misread V)	disagree with interpretation of V (actually same as E) and with decision to take P, instead keep V E reading
353	146,10	iti (cet,)	iti cet,	confirmed MSS reading	
355	146,10–11	pramāṇasādhārāṇa	pramāṇasādhārāṇa	MSS	
362	147,4	api cāpūrvābhyaśena	api ca pūrvābhyaśena	V (and PVA)	agree to improve, but only if also removing ca, (similarly disagree with implying P reading of ca when actually api vā pūrvābhyaśena)
367	147,28	cāpratipannapratyayāḥ	cāpratipannah parapratyayāḥ	MSS	
369	148,8	bāhyālambanam	bāhyānālambanatvam	MSS	
370	148,10	yathā prati	yathāprati	different spacing	
371	148,10	pratibhātārthālambanatvam	—	merely noted MSS readings	disagree with decision not to take P pratibhātārthālambanatvam
372	148,12	'bhrāntyupaplavo	bhrāntyupaplavo	MSS	
375	148,16	sarvatrārthaaprāptau	—	merely noted V reading (misread P)	disagree with interpretation of P (actually same sarvatrārthaaprāptau as V) and with decision not to take P V
376	148,18–9	atyantādr̥ṣṭasyārthasya	atyantādr̥ṣṭasyārthasya	MSS	
386	149,25	'vyavastheti	'vyavastheti	V (and PVA)	disagree with decision to emend

Fn. #	Edition Location	Edition Base Text	Improvement Suggested	Nature of Suggestion	Judgment of Suggestion (if not simple agreement)
388	149,30	na tv anubhūta	na tv ananubhūta	V	
392	150,9–10	anapahnava	apahnava	MSS	agree to improve, but disagree with decision not to take MSS atyantāpahnava
394	150,18	āgamāt, paradr̥ṣṭam	āgamāt paradr̥ṣṭam	different punctuation	
396	150,22–3	tad yad asau	tad yady asau	MSS	
399	151,11	apūrverthenāścaryakāriṇy	apūrvārthenāścaryakāriṇy "or" apūrvenārthenāścaryakāriṇy	different word separation	agree to improve, but disagree with instrumental interpretation, instead interpret as locative apūrve 'the 'nāścāryakāriṇy (i.e., no <i>akṣara</i> changes needed)
400	151,26	prayatna	pratīti	cj.	disagree with decision to conjecture, instead keep P
401	152,3	svapnadṛṣṭāntābh्याम्	svapnadṛṣṭābh्याम्	P	

Appendix 4D: Transcript and Collation Data for NBhū 104–154

In order to promote more digital editing of Sanskrit text, I am here making public all major files involved in my Sanskrit editing work on NBhū 104–154, at the following address:
https://github.com/tylergneill/nbhu_materials > “edit_nbhu_104-154”.

The data repository contains the following files:

- plain-text transcript files (TXT) of four fundamental witnesses (P1, P2, V, E) plus a similar plain-text version of the critically edited text (CrE);
- a CITE Exchange (CEX) file produced from the above five plain-text files (using the “cte2cex” tool, for which, see Appendix 5D) and meant for use with Brucheion (see Appendix 6D);
- a Classical Text Editor (CTE) file containing critically edited text (CrE) as produced from the four fundamental transcript text files (P1, P2, V, E) using CTE's semi-automatic collation function and extensive manual adjustment (i.e., the actual editing process); and
- two PDFs produced with CTE, with and without highlighting of major *akṣara*-level changes relative to the 1968 edition.

Appendix 5D: Command-Line Tool “cte2cex” for Transcript Data Conversion

A custom tool was needed to convert from individual transcript files to the collective CEX file format which could be imported into the Bruchieon software used here for supplementary visualization (see Appendix 6D). The tool, coded in Python, can be found at: <https://github.com/tylergneill/cte2cex>. It can take as input transcriptions prepared either as CTE files (as done in the DFG NBh project) or as plain-text (TXT) files created with any good text editing software (as done here with BBEdit). The tool is oriented toward my own fork of Bruchieon that repurposes user functionality for projects. Individual projects are created by setting up an appropriate JSON configuration file with paths to individual transcript files as well as various other required metadata. Example JSON files are included in the above repository for instructive purposes.

Appendix 6D: Deployment of Brucheion for Interactive Transcript Data

According to its GitHub page, “Brucheion is a Virtual Research Environment (VRE) to create Linked Open Data (LOD) for historical languages and the research of historical objects.” That is, it is a digital research environment which facilitates creation and visualization of data relevant to textual editing. The software was written in GoLang primarily by Thomas Köntges, with small additions contributed by myself (e.g., orthographic normalization and manuscript line numbers) and other project team members. It emerged and continues to be developed in the context of the DFG “Digital Critical NBh” project.

In order for others to be able to more easily see how I used it for my work, I have deployed a static, Dockerized version of Brucheion as a Heroku web-app at:

<http://brucheion-nbhu.herokuapp.com>

To use it, first go to the above link, then log in with the name “nbhuAvayavin”. Then, disregarding the following page with links, instead simply use the links below to start using the two major functions (Passage Overview and Multicompare) with NBhū 104–154 data:

<http://brucheion-nbhu.herokuapp.com/view/urn:cts:sklit:skt0001.nyaya006.CrE:104,6>

<http://brucheion-nbhu.herokuapp.com/multicompare/urn:cts:sklit:skt0001.nyaya006.CrE:104,6>

For more information on Brucheion, see its master-branch README and that of the fork I used at <https://github.com/Brucheion/Brucheion> and https://github.com/tylerneill/Brucheion_tgn, respectively.

Appendix 7: Highlighted Improvements to Text of NBhū 104–154

The following table presents about three hundred highlights of my cumulative improvements to the text of NBhū 104–154 relative to the 1968 printed edition. This includes nearly all changes on the *akṣara*-level, excluding obvious typos. It also excludes most cases of changes to spacing (generally made much more explicit here with the use of IAST transliteration) or to punctuation, except where these are deemed essential for proper understanding (e.g., atyantāpūrve 'ṛthe 'nāścaryakāriṇy at 151,11). Numerous other cases of the latter types of changes whose significance is moderate (e.g., “yam̄ praty ayam” at 110,11, or “ka evam āha «na pratīyante»?...” etc. at 144,26) or only slight are excluded due to being simply too numerous.

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
104,6	cāsthūlasyārthasya	ca: asthūlasyāpi sukhādeḥ grāhakam̄ iṣṭam̄ eva pratyakṣam̄. satyam̄. tathāpi kecit jñānāt arthāntaram̄ grāhyam̄ nechanti. tannirākaraṇārthaṁ idam̄ uktam: sthūlasyārthasya	V (P eyeskip)
104,8	tathā sati	tathāsti	MSS
104,14	yadvad atrāvayava	dvitrāvayava	P
105,2	tato	tatra	V
105,5	dravyasyābhypagame	dravyasyābhypagate	em.
106,14	apy ekadeśatve	samānadeśatve	V
108,1	evam̄ rūpam̄	eva rūpam̄	MSS
108,7	sā cāprāmāṇikī	sā cāpramāṇikā	MSS
108,7	nibandhanāṁs tadvyavahārān	nibandhanān vyavahārān	em.
108,12	arthasya siddhir	arthasiddhir	V
108,13	viṣayākāram̄ yugapad	viṣayākāram̄ ca yugapad	cj.
108,19	nibandhanaḥ	nibandhanaḥ // iti	MSS
108,20	ayam̄ nīlākāro	ayam̄ nīlādyākāro	V
108,21	nīlādir artho	nīlādyartho	V
109,6	katham	katham // iti	MSS
109,13	lakṣaṇā grāhya	lakṣaṇagrāhya	MSS
109,21	tadā evam̄	tadeyam̄	V
110,18	tathā	tadā	cj.
111,1	tathā	tathā hi	V
111,1	niścale	niścalative	V
111,16	etena vṛtānāvṛta	etenāvṛtānāvṛta	MSS

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
111,26	samyogasya cāvyāpyavṛttitve na	samyogasyāvyāpyavṛttitvena	V <i>om. ca;</i> MSS tvena
111,26–7	raktatārakta	raktārakta	MSS
111,27	virudhyate	na virudhyate	MSS
112,3	viṣayaprasaṅgāt	viṣayatvaprasaṅgāt	MSS
112,4–5	pradeśavṛttitvaśabdenāpi	"pradeśavṛtti"śabdenāpi	V
112,8	nirvikalpena	nirvikalpakena	MSS
112,11	raktāraktatvam	raktāraktatvādy	V
112,18	tatotpannam	tat otpannam	MSS
112,20	pararūpa	paramāṇurūpa	MSS
113,3	sarvatra tathārambhe	sarvatra tathārambho	MSS
113,4	virodhāc ceti	virodho veti	P1(vl) V -o; P1(vl) vā
113,15	vicitram	citram	MSS
113,16	ekaikenava	ekenaiva	MSS
113,17	atha	atha vā	V
113,18	iti vāvayavi	iti vāvayava	V
114,3	svākārajanaka	svākārajñānajanaka	MSS
114,4	vilakṣaṇākārajanaka	vilakṣaṇākārajñānajanaka	MSS
114,7	yato nīlādyākāraḥ	yato 'yam nīlādyākāraḥ	MSS
114,11	sthūlākārasyāpi	sthūlādyākārasyāpi	V
114,12	bāhyopādānatvasiddhiḥ	bāhyopādānatvasiddhiḥ syāt	MSS
114,14	bahavaḥ paramāṇavah	bahavaḥ	V
114,22	aparasamkhyātāni	aparisamkhyātāni	MSS
114,23	parasparāsamviditākāratvāt	parasparato'samviditākāratvāt	V
114,24	pratipattir iṣyate?	pratipattiḥ? iti	V
115,2	apy ekā	api hy ekā	V(≈) P
115,7	jñānotpādaka	jñānotpāda	V
115,15	tatrāya	tat tasya	V
115,16	niśprāmāṇiky evākāra	niśprāmāṇikaivākāra	MSS
115,20	vivicyate	vivecyate	MSS
115,20	tasyābhinnātmasvarūpa	tasyābhinnasvarūpa	V
115,21	svātmasamvedana	ātmasamvedana	MSS
116,4	nīlādyākāracitrabuddhir	nīlādyākārā citrā buddhir	V ākārā; (PVA) citrā
116,4	pramāṇatvenettham	pramāṇenetham	MSS
116,4	svabhāvasyopalambhāt	svabhāvasyaitasyopalambhāt	MSS
117,14	tadanyāpratipatrā tadrūpa	tadanyāpratipattāv atadrūpa	P1 V

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
117,15	śakyam iti	śakyam.	MSS
118,3	sāṃvyāvahārikasyetyādi	"sāṃvyavahārikasya" ityādi	MSS
118,6	yathā bhavatām sāṃvyāvahārika	yathā ca bhavatā samvyavahāra	P
118,6	yathā bhavatām sāṃvyāvahārika	yathā ca bhavatā samvyavahāra	MSS
118,6	yathā bhavatām sāṃvyāvahārika	yathā ca bhavatā sāṃvyavahāra	P1(ac) V
118,8	mukhena cādvaitam	mukhenādvaitam	V
118,11	'kāśyam	'prakāśyam	P
118,16	svātmanīṣṭham	svātmani niṣṭham	P
119,5	jñānāntareṇāsatyatvam	jñānāntareṇāsatyatvā	V
119,6	anyasyāsatyatvam	anyasyāsatyatām	MSS
119,9	tadavastha	tadā tadavastha	V
119,10	iti cet, na ; sa	iti cet, sa	MSS
119,16	varam maunam	paramaunam	em.
120,10	sarvathānupalabdhu	sarvathānupalabdho	V
120,15–6	abhinnātmano bhinnā nekākāra	abhinnātmano 'nekākāratva	MSS
121,2	vivicyamānasya	vivecyamānasya	V
121,4	atyantānupalambhasvabhāva ṁ	atyantān upalabhyasvabhāvam	P
121,10	arthāntaratvānarthāntaratva ṁ vā	arthāntaratvam anarthāntaratvam vā	MSS
121,11	jñānād arthāntaratve	jñānānarthāntaratve	P
121,16	anupapattir iti — ity etad	anupapattiḥ" ity etad	MSS
121,19	bāhyārthena hi	bāhyārthena saha	MSS
121,22	avayavibuddhyeti	avayavibuddhyā	MSS
122,1	na sarvatra	na ca sarvatra	MSS
122,2	tad apy ayuktam	tad ayuktam	MSS
122,6	puruṣāntarājñānam	puruṣāntarajñānam	P
122,9	bhinnākāra	bhinnākārah	MSS
122,10	viśayatvān na bheda iti cet	viśayatvāt" iti cet	V
122,10	anaikāntāt	anekāntāt	MSS
122,11	evānyatrāpy astu	evānyatrāstu	V
122,14	tathaivābheda	tavaivābheda	MSS
122,16	anupapatteḥ	anupapannah	MSS
122,16–7	apakarṣaṇena	apakarṣaṇe	MSS

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
122,17	buddhir anupapanneti	buddhyanupapattih	MSS
122,17	nirastam	apāstam	MSS
122,22	svābhimukhyam	svābhimukham	MSS
122,22	parābhimukhyam	parābhimukham	MSS
123,3	viśayibhāvasamjñā	viśayaviśayibhāva iti samjñā	MSS
123,8	anupapattir	anupapatteḥ	MSS
123,12	pradīpavat	prabhāpradīpavat	V
123,20	iti parābhuyupagamah	iti hi parābhuyupagamah	MSS
123,20	'syāstīti	cāsyāstīti	MSS
123,22	vamśastambheśv	vamśaḥ stambheśv	MSS
124,10–1	tadāśrayatvabuddhir	tadāśrayabuddhir	MSS
124,11	bhavati	bhavatīti	V
124,13	evopalambhān na vyavahāra	evopalambhāt sadvyavahāra	V
125,1	pratibandhanaḥ	pratibandhataḥ	V
125,17	cādvaitam	vādvaitam	MSS
125,17	doṣajālam	doṣajātam	V
126,4	yaś cobhayoḥ	yatrobhayoḥ	em.
126,9	asiddhatvāc	asiddhatā	MSS
126,10	tattvādi	tantvādi	P1(ac)
126,18	avayavābhāvāc	avayavyabhāvāc	MSS
127,12	senādilakṣaṇopalabdhīr	senāvilakṣaṇopalabdhīr	P1 V
127,22	jātiśabdagrahaṇam	jātibhedagrahaṇam	V
127,23	vanasamjñā samketād	vanasamjñāsamketāt	MSS
127,23	vanam vanam iti	"vanam" iti	cj.
127,24	kartum na pāryata	kartum aśakyah	V
128,1	pratyayo pi bahutva	pratyayo bahutva	V
128,3	pratyayasya	pratyayasyāpi	V
128,4	tasyāvayava	tasyāvayavi	MSS
128,8	senāvanādivad	senāvanavad	V
128,8–9	senādir	senāder	V
128,11	antena, na hi	anena hi	V
128,11	avayavā api	bahavo 'pi	em.
128,13–4	samkhyādiviśyatvam	samkhyāviśyatvam	MSS
128,16	padārthāḥ	padārthaḥ	P
128,16	apramāṇam	apramāṇakam	MSS
128,23	api caite	ca maite	P
128,24	yatrāpi aṇuvyatirikte	yatrāṇuvyatirikte	V
129,14	saṃyogātmakatvena	saṃyogātmakatve na	MSS

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
129,15	abhinnapratyayo na	abhinnapratyayo 'pi na	MSS
129,20	api pārthivatvādi	api sapārthivādi	V
129,20	kim atrāviruddham	atra viruddham	MSS
129,24–5	samānajātīyānām vā	samānajātīyānām vijātīyānām vā	V
130,4	kāraṇatve śarīrasya	kāraṇatve ca śarīrasya	MSS
130,11	viruddhadharmakāraṇānām	viruddhadharmakāṇām	MSS
130,15–6	parasparamasamyuktānām	parasparato'samyuktānām	V
130,16	saṃyukta	asamyukta	em.
130,23	asya sāvayavatvam	tasya sāvayavatvam	MSS
131,1	tasya kṣaṇikatvaniṣedhād	tasya ca kṣaṇikatvaniṣedhād	MSS
131,6	ekadeśatve pi piṇḍah	ekadeśatve piṇḍah	em.
131,11	digvibhāgena	dikpravibhāgena	MSS
131,16	pūrvādīdigvibhāga	pūrvādivibhāga	V
131,17	sa paramāṇuh	sa eva paramāṇuh	V
132,2	niravayavasyāśakyabhedāt	niravayavasyāśakyabhedatvāt	MSS
132,7	bāhyāntara	bāhyābhyaṇtara	MSS
132,13	tathā ca vicārayataḥ	yathā ca vicārayataḥ	V
132,15	bhrāntyapekṣayā	bhrāntāpekṣayā	MSS
132,16	bhrāntyaiva abhinnam	bhrānter abhinnam	V
133,4	nanu	na tu	V
133,14	jñānopalambhakāle vā nārthaḥ	jñānopalambhakāle ca nārthaḥ	V
133,15	tenaikasyopalambhaḥ	tenaikasya ai opalambhaḥ	MSS
133,18	bhedagrāhī tadabhedāt katham	bhedagrāhī, tadā katham	V
133,20	ākāreṇābhedānupapatter	ākāreṇābhedānupapattir	V
134,2	yasyārthapratyakṣa	yasyāpratyakṣa	V
134,5	pratyakṣeṇa paścād	pratyakṣeṇa drṣṭasya paścād	MSS
134,11	na vā tena	na cānena	V
134,12	cāpratyakṣopalambhasya	apratyakṣārthopalambha	MSS
135,4–5	go(jñānam) darśanam	godarśanam	V
135,6	sā cāprāmāṇikī	sā cāpramāṇikā	V
135,8–9	vyavahāramātram pravarttakatvam	vyavahāramātrapravarttakatvam	MSS
135,10–1	jñānābhidhānām nayanādivyavahārāṇām	jñānābhidhānānayanādivyavahārāṇ ām	MSS
135,12–3	bījādīdharmādi	bījādharmādi	em.
135,15	viṣayasyāprasiddhir	viṣayasyāpy aprasiddhiḥ	MSS

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
135,17	tadgr̄hitayotpādanamātreṇa	tadgr̄hitayotpādamātreṇa	MSS
135,17	viṣayavyavahārayogyam	viṣayam vyavahārayogyam	V
135,18	karoti tadaprasiddhāv	karoti. iti tadaprasiddhāv	MSS
135,19	aniṣṭāpattiḥ, sarva	aniṣṭhā, sarva	MSS
136,4	na svasaṁviditatvād	nāsvasaṁviditatvāt	MSS
136,6	nivarttayata	nivartata	V
136,10	yathāgn̄er	yathāgn̄ir	MSS
136,10	svātmadīpaka	svātmadāyaka	MSS
136,13	sarvadarśana	sarvatra darśana	V
136,18	kevalasyāpy arthasmaraṇāt	kevalasyāpy arthaśya smaraṇāt	MSS
136,21	tathāpi	tasyāpi	MSS
137,8–9	saṁvedanam bāhyatvam	saṁvedanabāhyatvam	em.
137,17	svasaṁvedanatvān	svasaṁvedyatvān	MSS
137,18	svasaṁvedakam	svasaṁvedyam	V
137,20	svasaṁvedakah	saṁvedakah	cj.
137,20	sat sarvam	tat sarvam	MSS
137,24	prakāśatvāt	prakāśakatvāt	V
138,2	svarūpātmaka	rūpātmaka	V
138,3	pradīpasyo bhayor asiddhatvān	pradīpasyo bhaya vādyasiddhatvān	V
138,3–4	athāsvātmavedanam	atha: “svātmavedanam	V
138,4	sajātīyānapekṣyam	sajātīyānapekṣam	V
138,5	svātmaprakāśakatvam	svātmaprakāśakam	V
138,5	svātmasaṁvedanotpādane	svātmani saṁvedanotpādane	P
138,5–6	sahakāriṇam apekṣate	sahakāri nāpekṣata	V
138,6	prakāśakasyāpi	prakāśasyāpi	MSS
138,9–10	tathābhūtasyaiva utpattiḥ	tathābhūtasyaiva tata utpattiḥ	V
138,10	iti,” na	iti, tan na	MSS
138,12	svāvayave rūpe	svāvayavarūpe	V
138,13–14	tathā dīpo 'pi syād atha dīpo nāpekṣate	tathā dīpo 'py anyam apekṣeta	V
138,14	ghaṭo py evam syāt, evañ	ghaṭo pi vā pradīpavac	V
139,5	pralīyate	pralīyate //” iti	MSS
139,7	sahakārisamartham	sahakāri samarthaṁ	P
139,8	vā hetor	vāhetor	(MSS)
139,9	saṁbhavāt	saṁbhavaḥ	MSS
139,9	saṁbhavāt ”	saṁbhavāt //” iti bādhakam bhavata eva syāt	MSS

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
139,17	na cānirūpitād arthasya	cānirūpitārthasya	V
139,20	eva devāryair	evācāryaiḥ	V
139,22	ity uktam	ity ayuktam	MSS
139,23	vā sarvajñatvam	vāsarvajñatvam	(MSS)
139,24	viśeṣaṇam	hetuviśeṣaṇam	MSS
139,25	abhedasiddhiḥ	abhedasiddhir iti	V
139,28	san	san //” iti	MSS
140,16	svasantāne	svasamṛtāne 'pi	MSS
140,18	bhedādyasiddhau	bhedāsiddhau	MSS
140,24	gr̥hitatābhimānah	gr̥hitābhimānah	MSS
	svapratibhāsenārthe 'rthādhhyavasāyena	svapratibhāse 'narthe 'rthādhhyavasāyena	
140,25			MSS
140,25–6	varttanā bhrāntir	pravartanād bhrāntir	V
141,3	na tadutpannasya	tena tadutpannasya	P
141,7	bāhyārthasya svayam vedyatvam	bāhyārthasya sam vedyatvam	em.
141,10	jñānāntaram vyavasthāpakam	jñānāntaravyavasthāpakam	P
141,14	na vānayor	na cānayor	em.
141,19	buddhyantarāsvarūpatve	buddhyantarāsarūpatve	em.
142,7	āpatitah	āyātah	V
142,16	tato numāne bhedavityā virodho	tato 'numānotthānavirodho	V
143,2	udāhṛtam	udāhṛtam //” iti	MSS
143,14	tenaivānaikāntah	tenaivānekāntah	P1
143,15	gamakam	gamakāṅgam	V
143,22	arthāntarālambana	arthāntarālambanānapekṣayā nirālambana	em. (P eyeskip)
143,22–3	kim idānīm	tat kim idānīm	P1(pc) P2 V
143,24	sālambanatvam vā	nirālambanatvam sālambanatvam vā	V(≈)
143,29	bāhyāsiddheḥ	bāhyāsiddheḥ	MSS
143,29–30	tena ca pratyayāntara	tena pratyayāntara	V P2
144,6	pramāṇābhāsenā cātyantādṛṣṭānām	pramāṇābhāsenā vātyantādṛṣṭānām	V
144,9	bāhyārtha	pramāṇābhāsenā tatsiddhau bāhyārtha	V
144,10	pramāṇābhrāntāv asya	pramāṇābhrāntatvasya	MSS

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
144,15	viśyatvena bhrāntatvam	viśyatvena tv abhrāntatvam	V
144,20	nanu cāvyavasthāpy	na cāvyavasthāpy	V
144,20	na śakyate	śakyate	MSS
144,26	na pratīyanta iti , kintu	na pratīyante? kim tu	P1(pc) P2 V
145,6–7	tadanumānasya	tadviśyatvād anumānasya	MSS
145,10	paramārthasadbhiḥ	paramārthāsadbhiḥ	V
145,16	sādhanavyavahārah	sādhyasādhanavyavahārah	V
145,16	kimcid atra	na kimcid atra	V
145,24	parityajāmah	parityakṣyāmah	em.
145,25	na vā ? iti	no veti	MSS
145,25	vikalpane	kalpane	em.
145,25	param bhaviṣyataḥ tadā	bhaviṣyati param tathā	V
145,25	param bhaviṣyataḥ tadā	bhaviṣyati param tathā	V
145,25	param bhaviṣyataḥ tadā	bhaviṣyati param tathā	V
146,10–11	pramāṇasādhārāsādhāraṇa	pramāṇāpramāṇasādhāraṇadarmi	MSS
147,4	api cāpūrvābhyaśena	api pūrvābhyaśena	V
147,25	na pratyayāntarād bhidā	pratyayāntaram asti na ca bhedāḥ iti	P
147,26	evam tāvad vacaḥ ko 'nyo bhadantād	ka evam bhadantāt anyo	P
147,28	cāpratipannapratyayah	cāpratipannaḥ parapratyayah	MSS
147,28	pūrvō bhyaśaś	pūrvābhyaśaś	V
148,8	svadr̥ṣṭivirodho	svadr̥ṣṭivirodhe	V(pc)
148,8	stam jagat	'stamgataṁ jagat	MSS
148,8	bāhyālambanam	bāhyānālambanatvam	MSS
148,9	viparītakhyātisamarthanāt	viparītakhyātīm samarthayatām	V -m; em. -yatām
148,10	yathā pratibhātārthālambanatvam	yathāpratibhātārthānālambanatva m	(MSS) yathāprati; P -an-
148,10–1	bodhāvabhāsite	bodhāvabhāsino	MSS
148,12	'siddhau bhrāntyupaplavo	'siddhau bhrāntyupaplavo	MSS
148,14	anupalambhenāsattvasiddhes	anupalambhenāsattvasiddhiḥ	V
148,16	sarvatrārthaprāptau	sarvatrārthāprāptau	MSS
148,18–9	atyantādṛṣṭārthasya	atyantādṛṣṭasyārthasya	MSS
149,1	mātrāvagame	mātrāvagamena	V
149,21	jñātasyājñāta	jñānasyājñāta	V
149,27–8	nirālambanam	nirālambanānām	MSS

1968 Ed. Location	1968 Edition Base Text	Improvement	Note
149,30	pramāṇatvam yuktam	prāmāṇyam yuktam	MSS
149,30	na tv anubhūta	na tv an anubhūta	V
150,1–2	kṣanikatvādisvabhāvo	kṣanikatādisvabhāvo	P
150,7	arthakriyād anupalabdher	arthakriyānupalabdhēḥ	V
150,9–10	bāhyārthasyānapahnavas	bāhyārthasyātyantāpahnavaḥ	V
150,10–11	viparyayavyāptih syāt ?	viparyayavyāptih?	MSS
150,14	vā pratipadyamānasya	cā pratipadyamānasya	MSS
150,22–3	tad yad asau	tad yady asau	MSS
150,23	na vā nīlādyākāram	na vā nīlādyākāram	(MSS)
151,5	nimittattvakalpanam	nimittavam kalpanīyam	V
151,7	paṭuh pratyayah	paṭupratyayaḥ	MSS
151,8	jñānamātrān nopapadyate	jñānamātrān notpadyate	V
151,9–10	artheśv atyādarābhyaśātiśaya	artheśv ādarābhyaśātiśaya	V
151,11	atyantāpūrverthenāścaryakārīny	atyantāpūrve 'rthe 'nāścaryakārīny	P
151,12	na; atadviparīt apratyayābhyaśāt	na, tadviparīt apratyayābhyaśāt	<i>cj.</i>
151,27	vādinām	vādinām hi	P
152,3	svapna dṛṣṭāntā bhyām	svapna dṛṣṭā bhyām	P
152,4	svapnavad buddhākhyānavādādikaraṇam	svapnabuddhyākhyānavādādikaraṇa m	<i>cj. om. vad</i> <i>cj. -ṇam</i>
152,6	buddhāśrayādikarma	buddhālayādikarma	P
152,14–5	ity eva lokān	ity evam lokān	<i>em.</i>
152,22	asattvam cetyādi	asattvam vā " ityādi	P
153,9	nīlajñānotpādikā nīlajñānān	nīlajñānotpāditān nīlajñānān	<i>em.</i>
153,14	karpāsādikam	kā rpāsādikam	<i>em.</i>
153,15	anyakāraṇam	anyat kāraṇam	P
153,17	spaṣṭābhatāyām	spaṣṭa	<i>em.</i>
153,18	ubhayaprasiddhau	ubhayaprasiddho	<i>em.</i>
153,19	stryādinirbhāsajñānam	stryādinirbhāsam jñānam	P
153,22	jāgradupalabdhānām	jāgradupalabdhārthānām	P
154,2	tarṣopaśamo	trṣṇāvichedo	<i>cj.</i>
154,2	mṛtā	mṛtāś	<i>em.</i>
154,3	bruvantaḥ, aśvagavādayo	bruvantaś ca , gavādayo	P
154,7	svapnopalabdhāḥ	svapnopalabdhō 'pi	P
154,8–9	retahspandasya	retahsyandasya	P
154,15	vaijātyād	vaiyātyāt	P

Appendix 7D: Alternate Version of Edition with Highlighted Improvements

For more easily appreciating significant improvements to the text (see Appendix 7 above), an alternate version of the new edition including highlighting of these improvements, namely with boxes around relevant portions of text and corresponding critical apparatus entries, is also made available online in PDF format at:

https://github.com/tylergneill/nbhu_materials > “edit_nbhu_104-154” > “edition_hl.pdf”

An image of the first page is provided below as a sample.

		{ §1.1 }
104,6	“nanu ca: asthūlasyāpi sukhāder grāhakam iṣṭam eva pratyakṣam.” sa-	
	tyam. tathāpi kecij jñānād arthāntaram grāhyam necchanti. tannirākaranā-	
	rtham idam uktam sthūlasyārthasya grāhakam, na tu jñānākārasya sthau-	
	lyam asti, ity ato na jñānātmakaṁ sthūlam grāhyam iti.	5
+104,7	« nanu ca: jñānād arthāntaram sthūlam sutaṛam na sambhavati. tathā hi:	
	na tāvad eko 'vayavī [tathāti], tasya pānyādikampe sarvakampaprapteḥ.	
	akampane vā calācalayoh pṛthaksiddhiprasaṅgāt, vastrodakavat.	
+104,10	« ekasya cāvaraṇe sarvasyāvaraṇaprasaṅgāt, abhedāt. na vā kasyacit	10
	āvaraṇam ity avikalpaṁ dr̄ṣyeta. avayavasyāvaraṇam, nāvayavina ity abhyu-	
	pagame 'py ardhāvaraṇe 'py anāvṛtavāt prāg ivāya darśanaprasaṅgah.	
	avayavadarśanadvāreṇāvayavidarśanam ity asminn api pakṣe sarvathāvā-	
	yavino 'pratipatti-prasaṅgah, sarvāvayavānām draṣṭum aśakyatvāt. katipayā-	
	vayavadarśanād avayavidaṛśane dvitrāvayavadarśane 'pi tathābhūta-saiva	15
	darśanaprasaṅgah.	
+104,15	« rakte caikasmīn avayave yady avayavī raktah, tadānyāvayavastho 'pi	
	rakta eva dr̄ṣyeta. no cet, tadā sarvāvayavārage 'py avayavy arakta evopa-	
	labhyeta.	
	{ § }	
+104,16	« vṛttyanupapatteś cāvayavī nāsti. tathā hi: "gavi śṛṅgam" iti laukikam,	20
	"śr̄ngē gauḥ" ity alaukikam. [tatra] yady avayavīn avayavī vartante, tadaike-	
	naivāvayavenākhaṇḍasyāvayavino 'varuddhatvād anye 'vayavāḥ kva var-	
	ran? na hi mūrtānām ekadeśāvasthānam asti, na cāvayavavyatirekenāva-	
	yinah pradeśabhedo 'sti yenāvayavānām ekadeśatvam na prasajyeta.	
	ekadravyavṛttitve ca dravyasyābhupagatē yuktibādhāpi syāt.	25
+105,6	« atha: "avayavesv avayavī vartate" iti pakṣah. tatṛapy ekasmīn evāva-	
	yave yadi sarvātmanā vartate, tadānye 'vayavānātadanāśrayāḥ syuḥ. ekā-	
	śrayatve ca dravyasya sadotpattir avināśaś ca syāt. atha: ekadeśenaikatrā-	
<hr/>		
7 tathāti] MSS; [tathā sati] E _V 8 akampane] P E _V ; akampena V 9 cāvaraṇe] P1 V E _V ;		
ca varape P2 10 dr̄ṣyeta] P E _V ; dr̄ṣyate V syāvaraṇam] P2 V E _V ; sya vara-		
nam P1 11 darśana-] P E _V ; pradarśana V 12 -dvāreṇāvayavī-] P E _V ; dvāreṇāvaya-		
vino V api P E _V ; om. V 14 dvitrāvayava] P; dvayavaya V; yadvad atrāva-		
yava E _V 16 tadānyāva-] P E _V ; tadānyāva V 18 labhyeta] P E _V ; labhyate V 21 tatra]		
V; tata P1; tat P2; [tato] E _V tadaiken-] E _V ; tad eken V; tad evaiken P2; tad eve-		
ken P1 24 sajyeta] P E _V ; sajyete V 25 -gate] em.; [game] MSS E _V -bādhāpi] P E _V ;		
bādhō pi V 28 ca ⁷] P1 V E _V ; om. P2 atha eka-] V E _V ; nyathalka P2(ac) P1; anya-		
thaika P2(pc)		
<hr/>		
Complex Omissions, Repetitions, and Transpositions:		
2 -sthūlasyāpi ... 4 uktam] V; [om.] P E _V		
<hr/>		
7 na ... 18 -labhyeta] = PV in 1, pp. 34,10–35,3; ~ p. 35,3–6		
pānyādikampe ... 8 pṛthaksiddhiprasaṅgāt] ~ PV 2.84		
9 ekasya ... 10 dr̄ṣyeta] ~ PV 2.85abc		
16 rakte ... 18 -labhyeta] ~ PV 2.85cd		
20 vṛttyanupapatteś] = NS 4.2.6		
gavi ... 21 alaukikam] ~ PV 3.150		

Appendix 8D: Digital Forms of Translation of NBhū 104–154

In order to enable users to do what they wish with the text of my translation of NBhū 104–154, I am sharing the LaTeX source files as well as some simpler derivatives (e.g., without footnotes or complex formatting) in Markdown (MD) and Microsoft Word (DOCX) formats. These are available at:

https://github.com/tylergneill/nbhu_materials > “translate_nbhu_104-154”

Appendix 9: Analytic Outline of NBhū 104–154 by Shodo Yamakami

This is a cleaned version of the material at www.cc.kyoto-su.ac.jp/~yamakami/synopsis.html, which concisely demonstrates the extent of Yamakami's engagement with the same passage studied here. With this version, I hope that this potentially useful resource will find a wider audience.

I.	The Buddhist doctrine of Vijñaptimātratā	104,06–109,25
I.1.	Disapproving of the realistic views	104,06–107,03
I.1.1.	Denial of 'avayavin' (the whole) theory of the Naiyāyikas	104,08–106,06
I.1.1.1.	Dharmakīrti's arguments	104,08–16
I.1.1.1.1.	Moving parts and unmoving parts (kampākampa) — PVin I 84,18–22	104,08–10
I.1.1.1.2.	Covered parts and uncovered parts (āvaraṇānāvaraṇa) — PVin I 84,22–86,05	104,10–15
I.1.1.1.3.	Red-colored parts and not-red-colored parts (raktārakta) — PVin I 86,6–9	104,15–16
I.1.1.2.	The Mādhyamika's arguments	104,16–106,02
I.1.1.2.1.	Impossibility of existence (vṛttyanupapatti)	104,16–106,02
I.1.1.2.1.1.	The parts (avayavas) cannot exist in the whole (avayavin)	104,16–105,05
I.1.1.2.1.2.	The whole cannot exist in the parts	105,06–106,02
I.1.1.2.2.	Being analysed by conception (buddhyavivecana)	106,03–05
I.1.1.2.2.1.	The whole is a quality (dharma) of the parts	106,05
I.1.1.2.3.	Conclusion	106,05–06
I.1.2.	Denial of the theory of accumulating atoms	106,06–10
I.1.3.	Denial of the atom itself	106,11–107,03
I.2.	The Vijñaptimātravādin's theory of knowledge	107,03–109,25
I.2.1.	Self-cognition (svasaṃvedana) — PVin I k. 38	107,03–07
I.2.2.	Nondifferentiation between cognition and object	107,08–109,08
I.2.2.1.	sahopalambhanyama (the necessity of being perceived together)	107,08–108,14
I.2.2.1.1.	PVin I k. 55ab	107,08–108,03
I.2.2.1.2.	PVin I k. 55cd	108,04–14
I.2.2.1.2.1.	PVin I 96,8–17	108,04–09
I.2.2.1.2.2.	PVin I 96,23–98,5	108,10–14
I.2.2.2.	The cognition arises from itself	108,15–109,08
I.2.2.2.1.	The external objects have nothing to do with the occurrence of cognition	108,15–19
I.2.2.2.1.1.	Examination of the Buddhist sākārajñānavāda (the doctrine maintaining that knowledge is always endowed with images)	108,20–21
I.2.2.2.1.2.	Examination of the Naiyāyika	108,21–109,04

	nirākārajñānavāda (the doctrine maintaining that knowledge is without images)	
I.2.2.2.2.	Reconfirmation of the above fact — PV Pratyakṣa, k.432	109,05–08
I.2.3.	The ultimate standpoint of the Vijnaptimātravādins	109,08–25
I.2.3.1.	Questions regarding the images in knowledge	109,08–10
I.2.3.2.	The ultimate truth — PV Pratyakṣa, kk.330cd–332ab (= PVin I kk. 39–40)	109,10–25
II.	Bhāsarvajña's refutation	109,27–154,20
II.1.	Refutation of I.1 (Disapproving of the realistic views)	109,27–132,09
II.1.1.	Refutation of I.1.1 (Denial of the avayavin theory)	109,27–130,20
II.1.1.1.	Refutation of I.1.1.1 (Dharmakīrti's arguments)	109,27–123,06
II.1.1.1.1.	Refutation of kampākampa	109,27–111,16
II.1.1.1.1.1.	From the logical standpoint	109,27–110,11
II.1.1.1.1.1.1.	svatantrānumāna (independent inference)	109,27–110,04
II.1.1.1.1.1.2.	prasaṅgānumāna (hypothetical destructive inference)	110,04–11
II.1.1.1.1.1.2.1.	The pervasion (vyāpti) is not established	110,04
II.1.1.1.1.1.2.2.	The fallacious probans whose locus is unreal (āśrayasiddha)	110,05–08
II.1.1.1.1.1.2.3.	Another interpretation	110,08–11
II.1.1.1.1.2.	From the ontological standpoint	110,12–111,16
II.1.1.1.1.2.1.	The avayavin is an independent reality	110,12–17
II.1.1.1.1.2.2.	The case that half the parts are moving (ardhāvayavacalanakāle)	110,17–111,05
II.1.1.1.1.2.3.	Movement is a partial existence (calanasya pradeśavṛttivam)	111,06–16
II.1.1.1.2.	Refutation of āvaraṇānāvaraṇa	111,16–23
II.1.1.1.3.	Refutation of raktārakta	111,24–123,06
II.1.1.1.3.1.	Distinction between the color of the avayavin and that of the avayavas	111,24–25
II.1.1.1.3.2.	pradeśavṛtti (partial existence)	111,25–112,11
II.1.1.1.3.3.	The color of the avayavin	112,13–123,06
II.1.1.1.3.3.1.	rūpamātra (the mere color)	112,13–113,04
II.1.1.1.3.3.2.	citrarūpa (the variegated color)	113,04–123,06
II.1.1.1.3.3.2.1.	Establishment by pratyakṣa (perception)	113,04–10
II.1.1.1.3.3.2.2.	Establishment by anumāna (inference)	113,10–15
II.1.1.1.3.3.2.3.	Particular case	113,15–20
II.1.1.1.3.3.2.4.	What is an object of the variegated manifestation (citrapratiḥbāsa)?	113,21–123,06
II.1.1.1.3.3.2.4.1.	The view that the object is a part distinct from atoms	114,01
II.1.1.1.3.3.2.4.2.	The view that the object is atoms, followed by	114,02–12

	Bhāsarvajña's refutation	
II.1.1.3.3.2.4.2.a.	Sarvāstivādins	114,02–05
II.1.1.3.3.2.4.2.b.	Sautrāntikas	114,06–12
II.1.1.3.3.2.4.3.	The Sautrāntika view that the object is accumulating atoms, followed by Bhāsarvajña's refutation	114,12–24
II.1.1.3.3.2.4.4.	The Vijñaptimātravāda view that the object is the variegated images in knowledge, followed by Bhāsarvajña's refutation	115,01–123,06
II.1.1.3.3.2.4.4.a.	The citrādvaita theory of the Vijñaptimātravādins	115,18–116,05
II.1.1.3.3.2.4.4.b.	Bhāsarvajña's refutation	116,07–123,06
II.1.1.3.3.2.4.4.b.a.	Rejection of the advaita theory in general	116,07–09
II.1.1.3.3.2.4.4.b.b.	Citrādvaita is identical with brahmādvaita of the Vedāntins	116,09–120,23
II.1.1.3.3.2.4.4.b.b.a.	Prajñākaragupta's refutation	117,02–118,04
II.1.1.3.3.2.4.4.b.b.b.	Bhāsarvajña's reply	118,05–13
II.1.1.3.3.2.4.4.b.b.c.	The Vijñaptimātravāda advaita theory, followed by Bhāsarvajña's refutation	118,13–119,17
II.1.1.3.3.2.4.4.b.c.	Inconsistency of citrādvaita with the svasaṃvedana theory	119,19–120,23
II.1.1.3.3.2.4.4.b.d.	Refutation of Prajñākaragupta's citrādvaita theory (aśakyavivecana)	121,01–20
II.1.1.3.3.2.4.4.b.d.a.	Refutation of I.1.1.2.2	121,21–122,20
II.1.1.3.3.2.4.4.b.d.b.	Refutation of the svasaṃvedanamātra theory	122,22–123,06
II.1.1.2.	Refutation of I.1.1.2 (Mādhyamika's arguments)	123,09–128,25
II.1.1.2.1.	From the logical standpoint	123,08–17
II.1.1.2.1.1.	svatantrānumana	123,09–11
II.1.1.2.1.2.	prasaṅgānumana	123,11–15
II.1.1.2.1.3.	Using pervasion (vyāpti) as accepted in another school	123,15–17
II.1.1.2.2.	From the ontological standpoint	123,17–126,01
II.1.1.2.2.1.	Polemics 1: samyoga (conjunction) of bamboo with wooden post	123,21–124,02
II.1.1.2.2.2.	Polemics 2: That which is one and uniform exists in only one place (yad ekam tad ekatraiva vartate)	124,03–07
II.1.1.2.2.3.	Polemics 3: The avayava is not able to be a basis of the avayavin	124,08–125,07
II.1.1.2.2.4.	Polemics 4: samavāya (inherence)	125,08–09
II.1.1.2.2.5.	Polemics 5: Standpoint of samanantarapratyaya (the immediately preceding homogeneous cause)	125,09–126,01
II.1.1.2.3.	Polemics between the Sautrāntikas and the Naiyāyikas	126,01–128,25

II.1.1.2.3.1.	Cognizing A is not possible without cognizing B (tadagrāhe 'grahāt)	126,01–11
II.1.1.2.3.2.	Army and wood (senāvana)	126,11–20
II.1.1.2.3.3.	Net-like apparition (keśonduka)	126,20–127,07
II.1.1.2.3.4.	Distinction of class (jātibheda)	127,07–25
II.1.1.2.3.5.	The number of many-ness (bahutvasaṅkhyā)	127,26–128,25
II.1.1.3.	Refutation of I.1.1.2.2.1	128,25–130,20
II.1.1.3.1.	The avayavin is nothing but the atoms	128,25–129,07
II.1.1.3.2.	The avayavin is only a particular conjunction (samyogaviśeṣa)	129,7–130,14
II.1.1.3.3.	Village and audience are not the avayavins	130,15–20
II.1.2.	Refutation of I.1.3 (Denial of Atoms)	130,20–132,09
II.1.2.1.	Refutation of Viṁś k. 12	130,20–131,10
II.1.2.1.1.	Atoms should be inferred to exist from seeing their effects	130,20–131,02
II.1.2.1.2.	Atoms have no parts	131,03–05
II.1.2.1.3.	Mahat (grossness) should be inferred to occur when atoms are accumulating	131,06–09
II.1.2.2.	Refutation of Viṁś k. 14 ab and NS 4.2.18–19	131,11–132,09
II.1.2.2.1.	Viṁś k. 14 ab	131,11–19
II.1.2.2.2.	NS 4.2.18–19	132,02–09
II.2.	Refutation of I.2 (The Vijñaptimātravādins' theory of knowledge)	132,09–154,20
II.2.1.	Refutation of I.2.1 (svasaṁvedana — PVin I k. 38)	132,09
II.2.2.	Refutation of I.2.2–3 (vijñaptimātratā)	132,11–141,30
II.2.2.1.	Refutation of sahopalambhaniyama (PVin I k. 55ab)	132,11–133,21
II.2.2.1.1.	saha (together) = samānakāle (at the same time)	132,12–133,07
II.2.2.1.1.1.	anaikāntika (inconclusive)	132,12–14
II.2.2.1.1.2.	viruddha (incompatible)	132,14–133,07
II.2.2.1.2.	saha = eka (one and the same)	133,07–21
II.2.2.1.2.1.	saha = ekena puruṣeṇa (by one and the same person)	133,07–08
II.2.2.1.2.2.	saha = ekasya (one and the same)	133,09–21
II.2.2.1.2.2.1.	ekasya jñānasya (one and the same knowledge)	133,10–12
II.2.2.1.2.2.2.	ekasyārthasya (one and the same thing)	133,13–14
II.2.2.1.2.2.3.	jñānārthayor ekasya (either a knowledge or a thing)	133,14–21
II.2.2.2.	Refutation of PVin I k. 55 cd and PVin I 96,8–17	133,21–135,25
II.2.2.2.1.	PVin I k. 55cd apratyakṣopalambhasya: α. arthadrṣṭi β. tajjanakam jñānam nārthadrṣṭih prasiddhyate: A. utpatti B. upalabdhi	133,21–135,05

II.2.2.2.1.1.	αA	134,03–06
II.2.2.2.1.2.	βA	134,06–09
II.2.2.2.1.3.	α/βB	134,09–11
II.2.2.2.1.4.	drṣṭi = artha	134,11–135,02
II.2.2.2.1.5.	The Naiyāyika's view	135,02–05
II.2.2.2.2.	PVin I 96,8–17	135,06–25
II.2.2.2.2.1.	The latter part (II)	135,09–15
II.2.2.2.2.2.	The former part (I)	135,15–25
II.2.2.3.	Polemics on svasaṃvedana (self-cognition)	135,26–141,14
II.2.2.3.1.	Knowledge can illuminate things other than itself	135,26–136,11
II.2.2.3.1.1.	The eyes (cakṣus) do not cognize themselves	136,02–03
II.2.2.3.1.2.	The heat (tejas) is the cause of illumination	136,03–04
II.2.2.3.1.3.	The fire (agni) burns things without burning itself	136,04–11
II.2.2.3.2.	Memory is not the case of sahopalambhaniyama	136,13–137,02
II.2.2.3.3.	Knowledge is established without the svasaṃvedana theory	137,04–22
II.2.2.3.3.1.	Knowledge is settled to be innate	137,05–13
II.2.2.3.3.2.	Its own nature (svabhāva) of knowledge cannot be lost even if the svasaṃvedana theory is denied	137,15–20
II.2.2.3.3.3.	The relation of the assisting and the assisted (upakāryopakārakabhāva) is not approved	137,21–22
II.2.2.3.4.	Denial of knowledge's nature of illuminating itself (svaprakāśakatva)	137,24–139,18
II.2.2.3.4.1.	Examining pakṣadharma (i.e. svaprakāśakatva)	138,01–39,13
II.2.2.3.4.2.	Examining the hetu “prakāśakatva” (illuminating)	139,13–18
II.2.2.3.5.	Syllogism proving that knowledge is known by another knowledge	139,20–28
II.2.2.3.6.	Supplementary argument on sahopalambhaniyama	140,01–141,14
II.2.2.3.6.1.	Is sahopalambhaniyama established without anvayavyatirekabhāva?	140,02
II.2.2.3.6.2.	Is it established by anvayavyatirekabhāva?	140,02–141,14
II.2.2.3.6.2.1.	The refutation of grāhyagrāhaka (the cognizer and the cognitum)	140,07–19
II.2.2.3.6.2.2.	The refutation of adhyavasāya (the determination)	140,21–141,14
II.2.2.4.	Summary	141,14–30
II.2.2.4.1.	Conclusion	141,14–16
II.2.2.4.2.	Summary slokas	141,17–30
II.2.2.4.3.	Refutation of PVin I kk. 39–40 and confirmation of the Naiyāyika's nirākārajñānavāda	142,02–10

II.2.2.5.	The Buddhist doctrine of <i>nirālambanavāda</i> (the view that cognitions have no reality as their corresponding objects) and Bhāsarvajña's refutation	142,12–154,20
II.2.2.5.1.	The Buddhist (Prajñākaragupta) <i>anumāna</i> of <i>nirālambanavāda</i> (<i>sarve pratyaya nirālambanaḥ pratyayatvāt svapnādipratyayavat</i>)	142,12–18
II.2.2.5.2.	Bhāsarvajña's refutation	142,19–154,20
II.2.2.5.2.1.	The reason is inconclusive (<i>anaikāntika</i>)	142,19–143,11
II.2.2.5.2.2.	<i>Nirālambanavāda</i> leads to unestablishment of <i>anumāna</i>	143,11–144,23
II.2.2.5.2.3.	The reason is incompatible (<i>viruddha</i>)	144,23–145,13
II.2.2.5.2.4.	Examination of <i>dṛṣṭānta</i>	145,15–148,03
II.2.2.5.2.4.1.	<i>Paramārthasat</i> and <i>Samvṛtisat</i>	145,15–146,05
II.2.2.5.2.4.1.1.	Prajñākaragupta's view	145,15–146,01
II.2.2.5.2.4.1.2.	Bhāsarvajña's refutation	146,02–05
II.2.2.5.2.4.2.	<i>Pramāṇabhāṣa</i>	146,07–148,03
II.2.2.5.2.4.2.1.	Prajñākaragupta's denial of <i>pramāṇabhāṣa</i>	146,08–147,05
II.2.2.5.2.4.2.2.	Bhāsarvajña's refutation	147,06–148,03
II.2.2.5.2.5.	Examination of <i>pakṣadharma</i> “ <i>nirālambanatva</i> ”	148,04–25
II.2.2.5.2.6.	Distinction between knowledge and object is known by perception	148,25–149,03
II.2.2.5.2.7.	The Buddhist view of <i>ālambana</i> denied	149,04–150,04
II.2.2.5.2.8.	Rejection of objects of dreams shows that knowledge and its objects are different	150,06–27
II.2.2.5.2.9.	Intense, fixed latent impression (<i>dṛḍhavāsanā</i>) and weak, unfixed latent impression (<i>arddhavāsanā</i>) denied	150,27–151,17
II.2.2.5.2.10.	The fact that one object is seen by many people proves that knowledge and its object are different	151,18–28
II.2.2.5.2.11.	Other person's mind (<i>santānāntara</i>) and impression (<i>samskāra</i>) of previous experience	152,02–20
II.2.2.5.2.12.	Rejection of Buddhist latent impression (<i>vāsanā</i>) theory	152,20–154,18
II.2.2.3.	The end of discussion	154,18–20

Appendix 10.1: New Analytic Outline of NBhū 104–154 (Overall)

Section	¶s	Main Point	Keyword
§ 1 pūrvapakṣa A	§ 1.1	Wholes appearing as gross and unitary can't exist as such.	avayavīn
	§ 1.2	Atoms can neither explain apparent wholes nor exist at all.	paramāṇu
§ 2 pūrvapakṣa B	§ 2.1	The external object cannot be proved.	sahopalambhā
	§ 2.2	Cognition must know itself.	svasam̄vedana
§ 3 siddhānta A	§ 2.3	Mind-internal factors suffice to explain objects.	âkāra
	§ 3.1	Partial residence of properties best explains part-whole differences.	pradeśavṛtti
§ 3 siddhānta A	§ 3.2	Variagation is real.	citrarūpa
	§ 3.3	Negation of apparent difference is unconvincing.	citrādvaita, bhrānti
§ 4 siddhānta B	§ 3.4	Real wholes (and atoms) explain difference best.	âśraya
	§ 4.1	Non-dual self-awareness cannot be proved.	sahopalambhā, svasaṁvedana
	§ 4.2	Cognition's being without object-support cannot be proved.	âlambana

Appendix 10.2: New Analytic Outline of NBhū 104–154 (Detailed)

Section	1968 ed. pp.	¶s	Main Point	Keywords
§ 1	104–107		<u>Buddhist Pūrvapakṣa A: Anti-Realism</u>	
1.1 avayavīn	104,06–104,16 104,16–106,6	4 3	The whole's properties conflict with those of its parts. The whole can be neither located physically nor found analytically.	kampa, āvaraṇa, rakta vṛtti, buddhvivecana
1.2 paramāṇu	106,6–106,10 106,11–107,3	1 1	The atom can't explain the whole's properties even when aggregated. A partless atom contradicts conjunction and all-pervasive ether.	pratyeka, samūha śadāṁśa, sarvagata
§ 2	107–109		<u>Buddhist Pūrvapakṣa B: Cognition Non-Dualism</u>	
2.1 sahopatiambha	107,3–108,3	2	Invariable co-apprehension leaves a separate object unestablished.	nīla, abheda, dvicandra, keśa
2.2 svasam̄vedana	108,4–108,14	2	Practical behavior toward objects is not possible if cognition is not self-aware.	vिषया, सत्ता, व्यवहारा
2.3 ākāra	108,15–108,28 109,8–109,24	4 3	Even without external objects, cognitive forms can explain inter-object specificity. Even without external objects, mental traces can explain subject-object specificity.	ākāra, arpaṇa vāsanā, avidyā

Section 1968 ed. pp. ¶s

Main Point

Keywords

§ 3 109–132 Bhāsarvajīna's Siddhānta A: In Defense of Realism

	109,27–110,8 110,8–111,5	2 3	Dharmaśāktī's paradox arguments against the whole are formally invalid. The whole's properties can differ from those of its parts.	vyāpti, drṣṭānta sāmagrī, samśaya
pradeśavṛtti	111,6–111,27	5	Partial residence of certain properties resolves seeming contradictions.	pradeśavṛtti, abhimāna
	111,27–112,11	3	Even undivided things can be treated as having partial residence of properties.	ākāśa, amśa, vyavahāra
	112,13–113,20	6	Variated color is a real quality by being a locus of multiple universals.	adhikaraṇa
3.2 citrarūpa	113,21–114,24	5	Atoms cannot explain apprehension of complex properties like variegation.	pratiparamāṇu, ākāra samvedana, ākāra
	115,1–115,16	4	Cognition alone cannot explain apprehension of variegation.	advaita, vivecaṇa, bheda bhrānti, ākārāropaṇa
3.3 citrādvaita	115,18–119,23 119,24–120,23	18 6	Self-cognition and variegation non-dualism preclude proving the falsity of difference. Error is impossible if difference is negated.	vivecaṇa, asattva jñānadharma vr̥tti, prasaṅga, vyāpti
	121,5–122,20	12	Analysis cannot prove non-existence of unreal things.	
	122,22–123,6	2	Cognition can have multiple objects as properties, including other cognitions.	
	123,8–123,19	3	The residence argument against the whole has unestablished terms.	
	123,21–126,10	8	A single thing can be supported by multiple things and still be independent.	varṇa, śākhā, āśraya
3.4 āśraya	126,10–127,7 127,7–127,25	4 4	Atoms can't explain apprehension of wholes without real intermediate wholes. Real wholes explain apprehension of natural types better than exclusion etc.	senā, paramāṇu, atīndriya jāti, vyāvṛtti, yogyatā
	127,26–128,25	4	There also exist collective things that are not real, unitary wholes.	senā, viṣaya, samkhyā
	128,25–130,20	9	The whole arises as a different entity among its parts, not as a property thereof.	devakula, ārambha, vijātīya
	130,20–132,09	9	The infinitely small and indivisible atom provides a proper foundation for the whole.	upādāna, avadhi

Section 1968 ed. pp. ¶s

Main Point

Keywords

§ 4 132–154

Bhāṣarvalīñā's Siddhānta B: Against Cognition Non-Dualism

	132,11–133,21	8	The “co-” (<i>saha</i>) in “invariable co-apprehension” requires real difference.	saha, bheda
	133,21–135,4	6	“Object-awareness” (<i>arthadṛṣṭi</i>) requires real difference.	arthadṛṣṭi, prasiddhi
	135,6–135,25	6	Practical behavior toward objects does not require awareness of cognition.	vिषया, सत्ता, व्यवहारा
4.1	135,26–136,11	3	The nature of cognition need not involve reflexivity.	स्वात्मन्, स्वभावा
sahopālambha and svasaṃvedana	136,13–137,2	4	Memory's sometimes featuring awareness is not proper evidence for reflexivity.	स्मृति, अभिलापा
	137,4–137,22	5	Cognition is not alienated as a result of non-reflexivity.	बाह्या, अत्मिया
	137,24–139,18	7	Light as an example case does not help establish cognition's independence.	प्रकाशा, अपेक्षा
	139,20–139,24	1	The default view that cognition is known by other cognition requires minimal defense.	आचार्या, परमेश्वरा
	139,24–141,9	10	No difference whatsoever can be established if cognition knows only itself.	भेदप्रसिद्धि, अध्यवासेया
	141,9–142,10	5	The difference required between cognitions might as well be granted to objects, too.	लोकप्रसिद्धि, योगक्षेमा
	142,12–143,11	5	Dreams are insufficient grounds for giving up all object-support whatsoever.	स्वप्ना, अलंबना
	143,11–144,23	12	Inference itself requires object-support and cannot be erroneous.	अनुमाना, विषया, भृत्यांता
	144,23–145,13	6	Object-support is simply that which is (underlyingly) apprehended.	प्रतियामानमात्रा
	145,15–148,2	15	Inferring specific properties is not like inferentially negating an unseen, unreal entity.	वेदाप्रामाण्या, धर्मिन
	148,4–148,13	4	Other interpretations of “without” (nir-) do not help the argument.	स्वात्मन्, बाह्या, प्रतिभाषा
	148,13–149,3	4	Negation can only apply to specific properties of previously established objects.	प्रतिशेधा, अत्यांदर्शा
4.2	149,4–150,4	7	Buddhist conceptual cognition properly exemplifies other-cognition without regress.	सम्बन्धा, विकल्पा
nirālambana	150,6–150,27	4	An inferential subject must be established also for oneself through perception etc.	स्वदृष्टा, व्याप्ति
	150,27–151,16	4	Without object-support, one cannot explain successful correspondence.	वासना, सम्वदा, द्रष्ट्वा
	151,18–152,21	7	Without object-support, one cannot explain intersubjective action.	सम्तनान्तरा, धर्मा
	152,23–153,17	6	Without object-support, one cannot explain diversity of appearances.	वैचित्र्या, प्रतिभासा
	153,17–154,17	5	Without object-support, one cannot explain vividness and newness.	स्पष्टा, अपुर्वा
	154,17–154,20	1	Conclusion: The gross object form belongs to the (whole) external object-support.	अलंबना, स्थूलाकारा

Appendix 11D: Skrutable Text Processing Library and Web Application

In the course of preparing corpus materials on which the Vātāyana research system was to be based, it was found necessary to frequently perform transliteration, metrical analysis, and word segmentation on large amounts of Sanskrit text. For this purpose, I developed Skrutable, which is available both as a Python library and as an easily accessed web app. It makes all of these functions available to everyone in one place, especially including the ability to process entire files at once. The tool can be used online at <https://www.skrutable.info>, and source code can be viewed at <https://github.com/tylergneill/skrutable> and [https://github.com/tylergneill/skrutable front end](https://github.com/tylergneill/skrutable_front_end).

Appendix 12D: Pramāṇa NLP Corpus, Metadata, and LDA Modeling Info

For direct access to the Sanskrit text files used for the research in topic modeling (with ToPān) and intertextuality detection (with Vātāyana) presented here, see:

<https://github.com/tylergneill/pramana-nlp> > “data_prep” > “3_etext_cleaned”

As explained on that GitHub page, a small number of files (e.g., PVin, NV) could not be shared in full at this time for various reasons. In addition to the text files themselves, further information is available in corresponding metadata files (> “data_prep” > “2_metadata”), as are a number of more technical files detailing the topic modeling process, including Python scripts for pre- and post-processing. Most important among the scripts is that which converts the numerous individual text files into a combined format (CEX) more suitable for topic modeling and further processing (see > “data_prep” > “4_segmentation” > “txt2cex4topan.py”). This script also performs document resizing and word segmentation, the latter using Skrutable's unique wrapper for the Sanskrit Sandhi and Compound Splitter of Hellwig and Nehrdich (2018).

Appendix 13D: Vātāyana Intertextuality Research Web Application

Vātāyana, which uses a combination of vector space modeling, topic modeling, TF-IDF, and text alignment (both local and global) to perform fuzzy detection of mid-sized intertextual parallels within the Pramāṇa NLP corpus, can be used online at <https://www.vatayana.info>.

The source code is available at <https://github.com/tylergneill/vatayana>. This code and a working Python/Jupyter Notebook installation are what is currently still required for performing offline batch processing (namely, using the file “batch_processing.ipynb”).

Appendix 14: Sample of Yamakami Citation Benchmark for NBhū 104–154

For the purposes of evaluating Vātāyana, I adopted the footnotes provided by Shodo Yamakami (1999) in his Japanese translation of this same passage NBhū 104–154 (translation pp. 159–265, footnotes pp. 266–291). Attention here is limited to only those texts which could be included in the Pramāṇa NLP text corpus and which are temporally prior to the NBhū. Out of Yamakami's total of 412 footnotes in his study of the passage NBhū 104–154, I discerned 93 of them to involve a total of 114 such relevant intertextual references.

Relevant references have been collected together in a table, along with relevant full textual excerpts. In the table, the breakdown of texts is according to the post-processed Pramāṇa NLP corpus and its identifiers, in anticipation of Vātāyana's needs. However, I also include other identifier information helpful for tracking down the reference as actually made in Yamakami's work. Relevant text is underlined in each excerpt. Since the table is quite large, only a screenshot sample is provided immediately below.

	A	B	C	D	E	F	G	H
	NBhū #	pr-NLP TM id	NBhū pr-NLP Text (relevant overlap underlined)	type	similar doc pr-NLP TM id	similar doc pr-NLP Text (relevant overlap underlined)	Citation Info (esp. Yfn # Yamkami)	
1	191	NBhū_152,23	na caivam hetuvalictryam vijñaptimâtrapakse 'sti, tat kutaḥ pratibhāsavaicitryam iti? vasanāvāśāt pratibhāsavaicitryam iti cet, jñānavyatirkītarthānabhupagame kā vāsanā? nanu coktam — vāsaneti pūrvalīfājānātītām śaktim āmantantī ¹ vāsanāvīda iti, atha kīm pūrvajīfānēnātātmulyajñānotpādikā śaktir janyate, vilakṣaṇajīfānotpādikā vēti? pūrvasmin pakṣe nilajīfānotpādikā milajīfānānīlajīfānāsnyopatithi, tato 'pi nilajīfānāsnyaveti nilajīfānāsantānah, ekasmīn santāne 'nekākārajīfānādayo na syāt, uttarasmin pakṣe tu khāntam api kālam ekākārajīfānāpravāhō na syāt, kālāntare ca tatsadīśotpādakatvam ity apy ayuktam; Ḫsanikatvena naśasya janākāvāśāmbhavat. kārpāse raktaṭāvād ity etad apy uttaratra nirākāriṣyāmāḥ.	=	PVA_356_iv_356,vii	phalamanyadvilakṣanam 678 tasmatśamṛtisatyasyātirekena kalpitā I na vastutve na tasvāt, kim kāryamanyadatasambhavi 679 yasyatavavasthitō jñātā jñānābhāṣāśāca sammataḥ I na tasya vāsanādhāro nāpurasā vāsanā matā 680 kusume, bijajūrādeh yallākṣādyupasacyati I tadṛūpasyaiva samkrāntih phale tasveti vāsanā 681 yuktopapanām hi satīm prakalpya yadvāsanāmarthanirākriyeyam I tathāpi bāyābhīnivesā esa jalad grahastamidam samastam	406	356,6
192	NBhū_153,4_153,7	kim copādānād anyena vāsyamānam dr̄ṣṭam yathā lāksādīnā karpasādikam puspađinā vastram ceti, ha ca jñānasyopādānād anyākāranām istam santānāntarājīnānam tu bāhyārthāvad adviditam katham vāskatvena kalpyeta? yadi! ca vāsanaiva nimittam syāt tataḥ smṛti eva syān na spastābhātā. na hi kevalavāsanātātā spastājīnāne spastābhātāyām, ubhāyaprasiddhau dr̄ṣṭānto 'sti, viparyave tu smṛti ena dr̄ṣṭāntah, kāmādyabhibhūtānām stryādinibhāsajīnānam sādhyaṭvād anudāharanam, tasvāpi stambhādyālambanatvān nimirūptākṣayānūtpādī ceti.		PVA_358_ix_4	~	408	358,35	
193	NBhū_153,4_153,14							

Appendix 14D: Full Yamakami Citation Benchmark for NBhū 104–154

Whereas the table screenshot in Appendix 14 is only a static sample, the full electronic table can be found online at:

https://github.com/tylergneill/nbhu_materials > “yamakami_citation_benchmark”

Appendix 15: Vātāyana Recall@5 Scores for NBhū 104–154

The following table presents full detail on individual recall@5 scores for Vātāyana's intertextual parallel search as run on all NBhū 104–154 query documents. In the table, recall@5 numbers are juxtaposed also against the numbers of novel cases with Smith-Waterman score over 50. The sparseness of the latter cases serves as a rough graphical illustration of how well the few-and-far-between relevant cases are picked out. Search settings are the same as elsewhere in this study (N1: 15%, N2: 200).

NBhū doc id	relevant parallels (in benchmark) (= ≈ ~)	returned@5 (Vātāyana) (in top 5)	recall@5 (= returned@5 / relevant)	novel results (SW >= 50) (* where no rel.)
NBhū_104,6^1	1	1	1	
NBhū_104,6^2	2	1	0.5	
NBhū_106,3	2	1	0.5	
NBhū_106,11_107,1	3	2	0.67	1
NBhū_107,6_108,1	1	1	1	
NBhū_108,4_108,6	1	1	1	1
NBhū_108,10	2	2	1	1
NBhū_108,20				
NBhū_109,1	1	1	1	1
NBhū_109,7	2	2	1	1
NBhū_109,16				3*
NBhū_109,27^1				
NBhū_109,27^2				1*
NBhū_110,12				
NBhū_111,6_111,10				
NBhū_111,20				
NBhū_111,24^1				
NBhū_111,24^2				
NBhū_112,13				
NBhū_113,2^1				
NBhū_113,2^2				
NBhū_113,21				
NBhū_114,6^1				
NBhū_114,6^2				
NBhū_115,1_115,4	1	0	0	
NBhū_115,12				
NBhū_115,18	3	3	1	
NBhū_116,7	2	2	1	
NBhū_117,3^1	1	1	1	
NBhū_117,3^2	2	2	1	2

NBhū doc id	relevant parallels (in benchmark) (= ≈ ~)	returned@5 (Vātāyana) (in top 5)	recall@5 (= returned@5 / relevant)	novel results (SW >= 50) (* where no rel.)
NBhū_117,19				
NBhū_118,5^1				
NBhū_118,5^2				
NBhū_118,24^1				
NBhū_118,24^2_119,15				
NBhū_119,19				
NBhū_119,24^1				
NBhū_119,24^2				
NBhū_119,24^3				
NBhū_119,24^4				
NBhū_121,2^1				
NBhū_121,2^2	1	1	1	
NBhū_121,21				
NBhū_122,5^1				
NBhū_122,5^2				
NBhū_122,22				
NBhū_123,8^1				
NBhū_123,8^2				
NBhū_123,21				
NBhū_124,3				
NBhū_124,8^1				
NBhū_124,8^2	1	1	1	2
NBhū_125,8				
NBhū_125,15	1	1	1	
NBhū_126,6^1	3	1	0.33	2
NBhū_126,6^2				
NBhū_126,6^3	2	1	0.5	
NBhū_126,6^4				
NBhū_127,11				
NBhū_127,17				
NBhū_127,26^1				
NBhū_127,26^2				
NBhū_127,26^3				
NBhū_127,26^4				
NBhū_129,6				
NBhū_129,17				
NBhū_129,27				
NBhū_130,10				
NBhū_130,15^1				

NBhū doc id	relevant parallels (in benchmark) (= ≈ ~)	returned@5 (Vātāyana) (in top 5)	recall@5 (= returned@5 / relevant)	novel results (SW >= 50) (* where no rel.)
NBhū_130,15^2				
NBhū_131,11_131,17	1	0	0	
NBhū_132,2	1	0	0	
NBhū_132,11^1	2	0	0	
NBhū_132,11^2				
NBhū_133,9				
NBhū_133,17^1				2*
NBhū_133,17^2				
NBhū_135,6^1				1*
NBhū_135,6^2				
NBhū_135,26_136,1				
NBhū_136,7				
NBhū_136,13				
NBhū_136,17				
NBhū_137,4				
NBhū_137,10				
NBhū_137,15_137,21				
NBhū_137,24				
NBhū_138,9	2	1	0.5	1
NBhū_139,1_139,3	3	3	1	1
NBhū_139,10_139,17				
NBhū_139,20				
NBhū_139,26_140,1	1	1	1	1
NBhū_140,7^1				
NBhū_140,7^2				
NBhū_140,21	1	1	1	
NBhū_141,3^1				
NBhū_141,3^2				
NBhū_141,17				
NBhū_142,2	1	1	1	
NBhū_142,12	2	2	1	
NBhū_142,19	5	4	0.8	
NBhū_143,3^1				
NBhū_143,3^2				
NBhū_143,22^1				
NBhū_143,22^2				
NBhū_144,9				
NBhū_144,14				
NBhū_144,20^1	1	1	1	

NBhū doc id	relevant parallels (in benchmark) (= ≈ ~)	returned@5 (Vātāyana) (in top 5)	recall@5 (= returned@5 / relevant)	novel results (SW >= 50) (* where no rel.)
NBhū_144,20^2				
NBhū_145,4_145,8				
NBhū_145,15	2	2	1	
NBhū_145,22	2	2	1	
NBhū_146,14_146,18	2	2	1	
NBhū_146,21	2	2	1	
NBhū_146,7	2	2	1	
NBhū_147,3_147,6	1	1	1	
NBhū_147,9				
NBhū_147,16				
NBhū_147,21				1*
NBhū_148,4_148,7^1				
NBhū_148,7^2				
NBhū_148,28				
NBhū_149,4_149,16	1	1	1	
NBhū_149,19	1	1	1	
NBhū_150,1	2	2	1	
NBhū_150,6^1				
NBhū_150,6^2	2	2	1	1
NBhū_150,6^3				1*
NBhū_151,5				
NBhū_151,18				
NBhū_151,25				
NBhū_152,2				
NBhū_152,10				
NBhū_152,18				
NBhū_152,23				
NBhū_153,4_153,7	1	1	1	
NBhū_153,14	1	0	0	
NBhū_153,21				
NBhū_154,7_154,12				
NBhū_154,15				
	71	57	0.803	15 (where rel.)
	0.803			+ 9*
				= 24 total

Appendix 16: PVA, PVin, and PVSV Vātāyana Search Hits for Entire NBhū

The following table presents top document similarity search results from the three texts PVA, PVin, and PVSV, taking *all* NBhū documents as queries, and using Smith-Waterman score ≥ 50 as a threshold. Search settings are the same as elsewhere in this study (N1: 15%, N2: 200).

NBhū doc id	PVA / PVin / PVSV doc id	topic	TF-IDF	sw
NBhū_46,13^1	PVin_l,031,i	28 (0.89)	2 (0.51)	1 (322.80)
NBhū_46,13^1	PVin_l,029,iii_l,030,ii	564 (0.40)	8 (0.18)	3 (97.00)
NBhū_46,13^1	PVA_341,x_342,iv	132 (0.79)	12 (0.13)	5 (51.60)
NBhū_46,13^2	PVin_l,031,i	3 (0.92)	1 (0.77)	1 (588.20)
NBhū_48,5	PVin_l,031,i	3269 (0.04)	2 (0.16)	1 (63.00)
NBhū_49,12	PVin_l,032,i	34 (0.76)	1 (0.81)	1 (255.00)
NBhū_49,12	PVA_343,v_343,viii	156 (0.48)	3 (0.31)	3 (136.80)
NBhū_52,6	PVin_l,032,ii^2	1861 (0.22)	1 (0.20)	1 (65.40)
NBhū_54,15^1	PVin_l,001,iv	1110 (0.09)	20 (0.12)	5 (72.20)
NBhū_56,8^2	PVin_l,089,ii	825 (0.32)	1 (0.32)	1 (155.60)
NBhū_56,8^2	PVSV_020,20^1	1071 (0.27)	14 (0.17)	2 (136.00)
NBhū_56,8^2	PVA_397,xix_397,xx	151 (0.69)	2 (0.32)	4 (91.20)
NBhū_56,8^2	PVin_l,038,ii	255 (0.61)	4 (0.29)	5 (87.00)
NBhū_56,8^2	PVA_399,vi_399,vii	117 (0.73)	5 (0.29)	6 (87.00)
NBhū_57,10^1	PVin_l,043,vi	126 (0.56)	1 (0.35)	1 (236.40)
NBhū_57,10^2	PVin_l,043,vi	112 (0.55)	1 (0.30)	1 (147.00)
NBhū_57,10^3	PVA_399,viii_400,ii	1419 (0.16)	2 (0.10)	1 (94.40)
NBhū_57,10^3	PVin_l,038,ii	3199 (0.07)	10 (0.09)	3 (94.00)
NBhū_64,16	PVA_560,v_560,ix	912 (0.16)	13 (0.13)	6 (51.40)
NBhū_101,6	PVin_l,020,ii_l,020,iii	304 (0.49)	7 (0.23)	1 (84.00)
NBhū_104,6^1	PVin_l,034,i	1 (0.99)	1 (0.61)	1 (356.20)
NBhū_106,11_107,1	PVin_l,035,i_l,036,ii	25 (0.70)	3 (0.25)	1 (109.00)
NBhū_107,6_108,1	PVin_l,039,i_l,039,ii	13 (0.94)	1 (0.53)	1 (263.00)
NBhū_108,10	PVin_l,041,i	428 (0.50)	3 (0.23)	1 (141.80)
NBhū_108,10	PVA_432,vii_432,ix	360 (0.56)	6 (0.18)	3 (59.20)
NBhū_108,4_108,6	PVin_l,040,i	1 (0.84)	1 (0.61)	1 (223.20)
NBhū_109,1	PVA_432,vii_432,ix	216 (0.73)	2 (0.35)	2 (97.80)
NBhū_109,16	PVA_365,iii_365,iv	14 (0.94)	2 (0.41)	2 (62.40)
NBhū_109,16	PVin_l,035,i_l,036,ii	21 (0.93)	3 (0.36)	3 (62.40)
NBhū_109,27^2	PVin_l,034,i	45 (0.88)	2 (0.26)	1 (79.60)
NBhū_109,7	PVin_l,035,i_l,036,ii	14 (0.96)	3 (0.43)	1 (188.40)
NBhū_109,7	PVA_365,iii_365,iv	10 (0.96)	2 (0.52)	3 (184.40)
NBhū_115,18	PVA_290,iv_290,vi	515 (0.47)	1 (0.27)	1 (59.00)
NBhū_117,3^1	PVA_288,vii	18 (0.93)	1 (0.52)	1 (298.20)

NBhū doc id	PVA / PVin / PVSV doc id	topic	TF-IDF	sw
NBhū_117,3^2	PVA_288,vii	8 (0.91)	3 (0.21)	1 (125.20)
NBhū_117,3^2	PVA_252,viii_253,iii	1384 (0.51)	5 (0.16)	2 (98.40)
NBhū_117,3^2	PVA_286,vi_286,ix	3085 (0.15)	2 (0.23)	3 (95.60)
NBhū_124,8^2	PVA_082,iv_082,v	6 (0.84)	3 (0.19)	2 (84.80)
NBhū_124,8^2	PVA_081,iii_081,iv	333 (0.43)	2 (0.22)	3 (80.40)
NBhū_135,6^1	PVin_I,040,i	228 (0.51)	1 (0.39)	1 (108.40)
NBhū_138,9	PVA_353,xiii_353,xv	1871 (0.24)	2 (0.27)	1 (88.80)
NBhū_138,9	PVA_353,x	53 (0.61)	1 (0.40)	2 (66.20)
NBhū_139,1_139,3	PVA_353,xiii_353,xv	406 (0.56)	1 (0.56)	1 (213.00)
NBhū_139,1_139,3	PVin_I,086,ii^1	143 (0.77)	2 (0.18)	2 (94.80)
NBhū_139,1_139,3	PVSV_022,06_022,20	2414 (0.25)	13 (0.11)	3 (93.20)
NBhū_139,1_139,3	PVA_643,vii_643,xiii	1 (0.93)	196 (0.06)	4 (54.60)
NBhū_139,26_140,1	PVA_353,ii_353,iv	435 (0.47)	2 (0.22)	2 (91.60)
NBhū_140,21	PVin_I,046,i_I,046,iii	31 (0.64)	9 (0.11)	1 (104.80)
NBhū_142,12	PVA_387,xvii_387,xxii	258 (0.42)	88 (0.08)	1 (51.20)
NBhū_142,19	PVin_I,091,i_I,092,i	7 (0.89)	1 (0.45)	1 (93.20)
NBhū_142,19	PVSV_010,19_010,21	4 (0.92)	4 (0.31)	2 (90.00)
NBhū_142,19	PVSV_010,13_010,15	2 (0.95)	2 (0.44)	3 (77.20)
NBhū_145,15	PVA_360,ix	86 (0.49)	1 (0.40)	1 (154.00)
NBhū_145,15	PVA_360,x	2052 (0.17)	2 (0.17)	2 (55.40)
NBhū_145,22	PVA_360,xi_361,i	77 (0.62)	1 (0.40)	1 (187.40)
NBhū_145,22	PVA_360,x	421 (0.47)	2 (0.22)	2 (129.20)
NBhū_146,14_146,18	PVA_361,iv_361,vi	6 (0.81)	1 (0.64)	1 (232.60)
NBhū_146,14_146,18	PVA_361,ii_361,iii	1 (0.85)	2 (0.36)	2 (109.60)
NBhū_146,21	PVA_361,vii	4 (0.97)	1 (0.80)	1 (273.80)
NBhū_146,21	PVA_361,iv_361,vi	316 (0.63)	2 (0.15)	2 (51.00)
NBhū_146,7	PVA_361,ii_361,iii	1 (0.87)	1 (0.55)	1 (269.80)
NBhū_146,7	PVA_360,xi_361,i	905 (0.27)	2 (0.32)	2 (181.20)
NBhū_147,21	PVA_361,x_361,xii	391 (0.37)	1 (0.15)	1 (71.00)
NBhū_147,3_147,6	PVA_361,x_361,xii	146 (0.54)	1 (0.25)	1 (150.80)
NBhū_149,19	PVA_366,iv	268 (0.57)	1 (0.24)	1 (210.60)
NBhū_149,4_149,16	PVA_366,v_366,ix	1196 (0.19)	1 (0.27)	1 (129.80)
NBhū_150,6^2	PVin_II,001,i_II,001,ii	1 (0.94)	1 (0.65)	1 (277.60)
NBhū_150,6^2	PVA_469,ix_469,xi	12 (0.91)	2 (0.19)	3 (56.00)
NBhū_150,6^3	PVA_361,xiii_361,xvi	201 (0.46)	1 (0.28)	1 (50.20)
NBhū_154,22^1	PVin_I,011,iii	50 (0.80)	1 (0.29)	1 (73.00)
NBhū_154,22^2	PVin_I,012,i_I,012,iii	36 (0.67)	1 (0.35)	1 (130.00)
NBhū_156,25_157,3^1	PVA_309,vi_309,vii	266 (0.55)	3 (0.22)	1 (93.40)
NBhū_156,25_157,3^1	PVin_I,021,i_I,021,iv	47 (0.82)	2 (0.24)	2 (91.60)
NBhū_156,25_157,3^1	PVA_313,iv_313,vii	349 (0.44)	7 (0.18)	4 (86.20)
NBhū_167,19_167,22	PVA_347,viii	3180 (0.07)	2 (0.24)	3 (84.00)

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NBhū_171,11	PVin_I,027,ii_I,027,iv	1 (0.99)	1 (0.56)	1 (200.40)
NBhū_171,11	PVA_327,vii_327,x	3 (0.95)	6 (0.27)	3 (96.40)
NBhū_171,11	PVin_I,027,v	5 (0.95)	2 (0.41)	5 (93.00)
NBhū_171,11	PVA_327,xi_327,xii	14 (0.89)	9 (0.20)	6 (88.20)
NBhū_171,11	PVA_327,v	52 (0.74)	10 (0.18)	7 (86.60)
NBhū_171,11	PVA_326,xi_327,i	35 (0.79)	8 (0.25)	8 (75.00)
NBhū_176,12	PVin_I,007,i_I,007,iii	55 (0.82)	2 (0.36)	1 (79.00)
NBhū_177,1	PVin_I,029,iii_I,030,ii	64 (0.76)	1 (0.35)	1 (307.60)
NBhū_177,12^1	PVA_332,iii_332,vi	32 (0.77)	3 (0.25)	1 (136.00)
NBhū_177,12^1	PVin_I,029,iii_I,030,ii	26 (0.78)	15 (0.12)	2 (103.40)
NBhū_177,12^1	PVA_338,ii_338,iv	103 (0.65)	22 (0.11)	5 (62.40)
NBhū_177,12^2	PVA_337,viii_338,i	408 (0.38)	7 (0.21)	3 (100.40)
NBhū_177,12^2	PVA_245,vi_245,vii	203 (0.61)	13 (0.17)	4 (96.60)
NBhū_177,12^2	PVA_245,viii_245,ix	221 (0.59)	4 (0.27)	5 (94.00)
NBhū_177,12^2	PVin_I,013,iii	34 (0.84)	3 (0.31)	6 (91.40)
NBhū_177,12^2	PVin_I,007,i_I,007,iii	2 (0.90)	2 (0.35)	7 (90.00)
NBhū_177,12^2	PVA_246,i_246,ii	591 (0.28)	19 (0.15)	8 (87.00)
NBhū_178,16^1	PVin_I,007,iv	259 (0.53)	2 (0.27)	1 (117.40)
NBhū_178,16^1	PVin_I,007,i_I,007,iii	2 (0.96)	3 (0.20)	2 (55.20)
NBhū_178,16^2_179,7	PVin_I,007,iv	1 (0.94)	1 (0.56)	1 (435.40)
NBhū_178,16^2_179,7	PVin_I,008,i	339 (0.53)	3 (0.17)	2 (101.80)
NBhū_179,10	PVin_I,009,i_I,009,iii	1 (0.79)	1 (0.60)	1 (338.40)
NBhū_179,10	PVin_I,008,i	3 (0.73)	2 (0.48)	2 (270.20)
NBhū_179,10	PVin_I,009,iv_I,009,v	763 (0.33)	4 (0.17)	3 (99.00)
NBhū_179,10	PVA_253,iv_253,vii	955 (0.30)	6 (0.13)	5 (90.00)
NBhū_179,21	PVin_I,009,iv_I,009,v	68 (0.55)	1 (0.53)	1 (352.60)
NBhū_179,21	PVin_I,010,i	435 (0.34)	3 (0.19)	3 (83.20)
NBhū_179,21	PVA_266,vi_266,viii	27 (0.60)	4 (0.15)	4 (79.60)
NBhū_180,12	PVin_I,011,ii	24 (0.78)	1 (0.40)	1 (208.00)
NBhū_180,22	PVin_I,007,iv	937 (0.25)	7 (0.13)	1 (54.00)
NBhū_180,3_180,9	PVin_I,010,ii_I,011,i	1 (1.00)	1 (0.64)	1 (320.60)
NBhū_180,3_180,9	PVin_I,010,i	66 (0.87)	2 (0.41)	2 (242.40)
NBhū_180,3_180,9	PVin_I,011,ii	28 (0.94)	3 (0.25)	3 (115.20)
NBhū_181,4_181,7^1	PVA_249,i_249,iii	1963 (0.08)	2 (0.23)	2 (92.20)
NBhū_182,1_182,4	PVA_305,iv_305,v	489 (0.38)	10 (0.13)	1 (59.20)
NBhū_182,13^2	PVin_I,009,i_I,009,iii	221 (0.72)	1 (0.44)	1 (55.60)
NBhū_182,9_182,13^1	PVin_I,007,iv	441 (0.48)	99 (0.07)	1 (60.60)
NBhū_183,10	PVin_I,009,iv_I,009,v	339 (0.37)	1 (0.28)	1 (98.00)
NBhū_185,1	PVin_I,010,i	78 (0.60)	1 (0.22)	1 (53.40)
NBhū_185,28_186,6	PVA_246,viii_246,ix	450 (0.34)	23 (0.10)	3 (97.80)
NBhū_185,28_186,6	PVin_I,017,i_I,017,ii	654 (0.28)	2 (0.19)	4 (52.00)

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NBhū_185,6_185,15	PVin_I,010,ii_I,011,i	11 (0.90)	2 (0.18)	1 (74.00)
NBhū_185,6_185,15	PVin_I,011,ii	36 (0.87)	1 (0.27)	2 (65.20)
NBhū_192,11_192,16	PVA_480,v_480,viii	369 (0.43)	3 (0.36)	3 (75.20)
NBhū_195,18_196,5	PVin_I,047,i	14 (0.87)	1 (0.62)	1 (382.40)
NBhū_195,18_196,5	PVA_218,viii^2_218,xi	242 (0.57)	5 (0.26)	2 (195.60)
NBhū_195,18_196,5	PVA_229,i_229,ii	2 (0.91)	3 (0.38)	4 (142.80)
NBhū_195,18_196,5	PVA_228,vi_228,ix	152 (0.69)	8 (0.19)	6 (88.00)
NBhū_195,18_196,5	PVin_I,046,i_I,046,iii	121 (0.72)	6 (0.23)	7 (54.00)
NBhū_195,6_195,9	PVin_I,046,i_I,046,iii	103 (0.62)	5 (0.23)	1 (63.80)
NBhū_198,15_198,17	PVA_004,vii_004,ix	10 (0.73)	1 (0.52)	1 (176.80)
NBhū_199,13^1	PVA_025,iii	16 (0.91)	1 (0.52)	1 (337.40)
NBhū_199,13^2	PVA_025,iii	1 (0.97)	1 (0.69)	1 (571.60)
NBhū_199,13^2	PVA_025,iv_025,vi	272 (0.85)	6 (0.16)	2 (79.20)
NBhū_200,12	PVA_025,vii_025,ix	3 (0.96)	1 (0.68)	1 (380.40)
NBhū_200,17	PVA_025,x	3 (0.94)	1 (0.44)	1 (302.40)
NBhū_200,17	PVA_026,i_026,iii	274 (0.62)	2 (0.36)	2 (200.00)
NBhū_200,17	PVA_025,vii_025,ix	2 (0.94)	3 (0.26)	3 (106.00)
NBhū_200,25_201,1	PVA_026,iv	81 (0.69)	1 (0.67)	1 (339.80)
NBhū_200,25_201,1	PVA_026,i_026,iii	350 (0.55)	2 (0.31)	2 (92.20)
NBhū_200,6_200,8	PVA_025,iv_025,vi	17 (0.83)	1 (0.72)	1 (354.00)
NBhū_201,12_201,23	PVA_029,xviii_029,xx	1 (0.97)	1 (0.64)	1 (456.40)
NBhū_201,12_201,23	PVA_029,xiv_029,xvii	8 (0.85)	2 (0.56)	2 (271.80)
NBhū_201,7	PVA_029,xi_029,xiii	1 (0.87)	1 (0.73)	1 (334.40)
NBhū_203,1	PVA_025,x	22 (0.66)	1 (0.18)	1 (184.40)
NBhū_203,12	PVA_026,iv	1657 (0.25)	1 (0.20)	1 (111.00)
NBhū_204,10_204,14	PVA_026,ix_026,xiii	4 (0.97)	1 (0.80)	1 (318.00)
NBhū_204,16_204,19	PVA_026,xiv_027,i	1 (0.89)	1 (0.68)	1 (324.20)
NBhū_204,21_205,8	PVA_027,ii	1 (0.97)	1 (0.58)	1 (371.20)
NBhū_204,21_205,8	PVA_026,xiv_027,i	5 (0.91)	2 (0.44)	2 (232.60)
NBhū_204,21_205,8	PVA_027,iii_027,vi	248 (0.48)	3 (0.38)	3 (209.20)
NBhū_205,19_205,21	PVA_026,xiv_027,i	14 (0.84)	1 (0.33)	1 (104.00)
NBhū_208,22_208,24	PVA_025,iii	923 (0.52)	1 (0.35)	1 (288.20)
NBhū_208,22_208,24	PVA_004,iv_004,vi	1578 (0.40)	3 (0.22)	2 (93.20)
NBhū_209,6	PVin_I,046,i_I,046,iii	427 (0.35)	4 (0.17)	1 (54.00)
NBhū_228,5^1	PVin_II,014,i_II,014,ii	74 (0.60)	1 (0.44)	1 (110.40)
NBhū_228,5^1	PVA_496,xi_497,iv	56 (0.61)	2 (0.43)	2 (106.00)
NBhū_231,1	PVSV_040,13_040,17	81 (0.65)	2 (0.37)	1 (155.60)
NBhū_231,1	PVSV_040,05_040,06	186 (0.53)	1 (0.40)	2 (105.00)
NBhū_231,6	PVA_475,xii_476,i	4 (0.74)	1 (0.26)	1 (129.80)
NBhū_231,6	PVin_II,004,i_II,004,iii	194 (0.47)	2 (0.25)	2 (129.00)
NBhū_232,19_232,26	PVin_II,005,i	16 (0.75)	1 (0.31)	1 (59.20)

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NBhū_232,30	PVA_481,xii_481,xvi	34 (0.61)	1 (0.52)	1 (92.40)
NBhū_232,30	PVin_II,005,i	1638 (0.21)	11 (0.18)	2 (64.40)
NBhū_232,30	PVA_482,xiv_483,i	4 (0.71)	5 (0.19)	3 (63.20)
NBhū_233,10	PVA_481,xvii	48 (0.88)	1 (0.72)	1 (354.40)
NBhū_233,17	PVA_482,iii_482,iv	1175 (0.19)	3 (0.16)	1 (71.60)
NBhū_233,22_233,24	PVA_482,ix_482,xii	3 (0.87)	1 (0.52)	1 (174.20)
NBhū_233,22_233,24	PVA_482,v_482,viii	18 (0.77)	2 (0.34)	2 (88.80)
NBhū_234,1	PVA_482,xiii	3 (0.78)	1 (0.52)	1 (356.00)
NBhū_234,1	PVA_482,ix_482,xii	25 (0.71)	3 (0.23)	2 (72.00)
NBhū_234,1	PVA_475,xii_476,i	802 (0.26)	18 (0.12)	3 (50.60)
NBhū_234,21	PVin_II,005,i	2067 (0.26)	7 (0.21)	1 (62.20)
NBhū_235,2	PVSV_001,08_001,12^1	62 (0.70)	27 (0.13)	1 (53.00)
NBhū_237,26^1	PVA_482,xiii	145 (0.55)	1 (0.28)	1 (74.40)
NBhū_238,13_238,15	PVSV_085,17_085,22	1455 (0.22)	1 (0.19)	1 (51.00)
NBhū_238,28	PVSV_001,12^3	984 (0.23)	44 (0.12)	1 (56.20)
NBhū_238,28	PVin_I,056,i_I,056,ii	1232 (0.20)	58 (0.10)	2 (56.20)
NBhū_239,10	PVSV_024,24^2	35 (0.79)	1 (0.54)	1 (516.40)
NBhū_239,10	PVSV_024,24^1	169 (0.60)	2 (0.23)	2 (53.00)
NBhū_239,4	PVSV_024,18	1 (1.00)	1 (0.79)	1 (282.60)
NBhū_239,4	PVin_I,056,iii	44 (0.86)	2 (0.55)	2 (280.80)
NBhū_240,22_240,24	PVSV_026,02_026,12	5 (0.82)	1 (0.55)	1 (107.00)
NBhū_240,22_240,24	PVA_567,xi_568,i	85 (0.62)	2 (0.28)	2 (99.80)
NBhū_240,28	PVSV_026,14	4 (0.87)	1 (0.46)	1 (179.20)
NBhū_240,6^1	PVSV_024,24^2	60 (0.79)	1 (0.24)	1 (65.00)
NBhū_240,6^1	PVSV_024,18	1 (0.95)	4 (0.14)	2 (64.00)
NBhū_240,6^1	PVin_I,056,iii	52 (0.81)	7 (0.12)	3 (64.00)
NBhū_241,27^1	PVSV_027,09	2 (0.85)	1 (0.57)	1 (350.80)
NBhū_241,5_241,14	PVSV_027,03_027,07	27 (0.68)	1 (0.47)	1 (161.60)
NBhū_241,5_241,14	PVSV_027,09	26 (0.69)	2 (0.31)	2 (141.00)
NBhū_241,5_241,14	PVSV_028,03_028,08	15 (0.72)	3 (0.25)	3 (97.00)
NBhū_242,27_243,4	PVSV_028,18_029,01	3 (0.90)	1 (0.52)	1 (171.00)
NBhū_242,27_243,4	PVSV_028,03_028,08	2 (0.92)	2 (0.31)	2 (95.20)
NBhū_243,21^1	PVSV_028,12_028,13	58 (0.62)	1 (0.50)	1 (263.40)
NBhū_245,18_245,21	PVSV_029,05_029,10	1 (0.94)	1 (0.72)	1 (251.00)
NBhū_245,23	PVSV_029,20_030,01	2 (0.98)	2 (0.62)	1 (437.80)
NBhū_245,23	PVSV_029,12_029,19	3 (0.97)	1 (0.75)	2 (389.60)
NBhū_246,17	PVSV_030,03^1	1 (0.96)	1 (0.46)	1 (318.00)
NBhū_246,17	PVSV_030,03^2_031,05	5 (0.87)	4 (0.14)	2 (89.00)
NBhū_246,23^1	PVSV_030,03^2_031,05	1 (0.97)	1 (0.70)	1 (555.40)
NBhū_246,23^1	PVSV_029,20_030,01	3 (0.93)	2 (0.23)	2 (150.80)
NBhū_246,23^2	PVSV_030,03^1	1 (0.91)	1 (0.28)	1 (95.60)

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NBhū_246,7_246,11	PVSV_030,03^1	2 (1.00)	1 (0.74)	1 (428.60)
NBhū_246,7_246,11	PVSV_029,20_030,01	1 (1.00)	2 (0.37)	2 (188.00)
NBhū_247,15	PVSV_029,12_029,19	3 (0.87)	1 (0.28)	1 (60.40)
NBhū_247,26	PVSV_029,05_029,10	4 (0.89)	3 (0.19)	1 (62.20)
NBhū_248,6^1	PVSV_029,20_030,01	2 (0.93)	1 (0.24)	1 (98.20)
NBhū_249,10	PVSV_031,18	37 (0.66)	1 (0.23)	1 (100.20)
NBhū_249,21_249,25	PVSV_032,01_032,03	1 (0.92)	1 (0.66)	1 (527.40)
NBhū_250,14^1	PVSV_030,03^2_031,05	20 (0.61)	34 (0.10)	1 (83.00)
NBhū_250,14^2	PVSV_030,03^2_031,05	1 (0.93)	1 (0.37)	1 (406.80)
NBhū_250,31_251,5	PVSV_034,19^1	2 (0.76)	1 (0.33)	1 (224.80)
NBhū_250,31_251,5	PVSV_034,07_034,17	32 (0.59)	3 (0.24)	2 (99.00)
NBhū_251,18_252,3	PVSV_032,24_033,07	6 (0.79)	1 (0.39)	1 (101.60)
NBhū_251,18_252,3	PVSV_032,13_032,22	184 (0.54)	2 (0.29)	2 (91.20)
NBhū_251,9	PVSV_032,13_032,22	705 (0.28)	1 (0.18)	1 (87.60)
NBhū_252,11_252,15	PVSV_035,18_036,03	619 (0.41)	2 (0.34)	1 (95.00)
NBhū_252,11_252,15	PVSV_033,22_034,05	539 (0.42)	1 (0.45)	2 (81.40)
NBhū_252,17_252,19	PVSV_035,18_036,03	663 (0.33)	1 (0.58)	1 (258.40)
NBhū_252,17_252,19	PVSV_036,18_036,21^1	136 (0.48)	2 (0.21)	2 (99.80)
NBhū_252,17_252,19	PVSV_036,05	662 (0.33)	4 (0.14)	3 (72.00)
NBhū_252,5	PVSV_033,09	2 (0.78)	1 (0.48)	1 (191.60)
NBhū_254,18_254,21	PVSV_038,11	3 (0.99)	1 (0.70)	1 (269.20)
NBhū_254,27	PVSV_038,17^1	1 (0.99)	1 (0.81)	1 (552.00)
NBhū_254,8	PVSV_034,19^1	109 (0.56)	1 (0.25)	1 (157.40)
NBhū_254,8	PVin_1,056,iii	1181 (0.20)	7 (0.13)	2 (87.00)
NBhū_254,8	PVA_577,x_577,xiii	479 (0.37)	9 (0.13)	3 (87.00)
NBhū_255,9	PVSV_038,17^2_039,19	9 (0.97)	1 (0.77)	1 (773.00)
NBhū_256,16_256,20	PVSV_047,19	99 (0.53)	1 (0.33)	1 (113.20)
NBhū_256,27_256,30^1	PVSV_048,20_048,22^1	3911 (0.14)	7 (0.13)	1 (85.60)
NBhū_256,30^2	PVSV_060,04	1 (0.77)	1 (0.46)	1 (77.20)
NBhū_257,13_257,17	PVSV_040,24_041,01	14 (0.72)	2 (0.21)	1 (102.00)
NBhū_257,13_257,17	PVSV_041,07_041,09	76 (0.56)	1 (0.37)	3 (75.20)
NBhū_258,9^1	PVSV_041,14_042,01	2 (0.90)	1 (0.31)	1 (147.00)
NBhū_259,15_259,19	PVSV_048,22^2_049,16	59 (0.83)	1 (0.24)	1 (139.80)
NBhū_259,24^1	PVSV_049,19^1	32 (0.68)	1 (0.39)	1 (214.40)
NBhū_260,26_260,28	PVSV_056,10_056,16	191 (0.48)	1 (0.31)	1 (88.00)
NBhū_261,12_261,14	PVSV_052,12_052,16	47 (0.77)	3 (0.30)	1 (75.60)
NBhū_261,27_261,30	PVSV_046,11^1	13 (0.72)	2 (0.27)	1 (120.20)
NBhū_261,27_261,30	PVSV_045,20_045,24	183 (0.52)	1 (0.31)	2 (102.60)
NBhū_261,3_261,5	PVSV_082,23_082,28	1356 (0.16)	1 (0.25)	1 (101.40)
NBhū_264,16	PVSV_034,19^2	2 (0.91)	3 (0.19)	1 (80.80)
NBhū_264,16	PVSV_042,02^2	34 (0.82)	2 (0.19)	2 (55.20)

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NBhū_265,11^1	PVSV_042,02^3	97 (0.63)	1 (0.26)	1 (98.60)
NBhū_266,13_266,17	PVSV_067,01^4	128 (0.50)	1 (0.18)	1 (97.20)
NBhū_266,22	PVSV_067,01^1	36 (0.66)	1 (0.20)	1 (94.80)
NBhū_266,6	PVSV_038,17^2_039,19	11 (0.77)	1 (0.25)	1 (180.20)
NBhū_267,17^1	PVSV_070,16	3 (0.91)	1 (0.40)	1 (193.40)
NBhū_267,2^1	PVSV_069,21_070,14	2 (0.95)	1 (0.45)	1 (306.80)
NBhū_267,2^2	PVSV_073,22^2_074,20	13 (0.76)	2 (0.23)	1 (98.20)
NBhū_267,2^2	PVSV_072,19^2	67 (0.63)	1 (0.27)	2 (77.20)
NBhū_268,24	PVSV_078,15_078,22	32 (0.77)	2 (0.20)	1 (96.00)
NBhū_269,1	PVSV_078,08_078,13	43 (0.83)	1 (0.49)	1 (174.20)
NBhū_270,29	PVSV_069,10_069,20	2656 (0.13)	1 (0.19)	1 (112.00)
NBhū_270,29	PVSV_054,18^2	1 (0.86)	2 (0.17)	2 (84.20)
NBhū_271,11^2	PVSV_069,10_069,20	1688 (0.15)	3 (0.14)	1 (105.40)
NBhū_271,11^2	PVin_I,001,iv	190 (0.55)	1 (0.17)	4 (73.00)
NBhū_283,2_283,11	PVin_I,050,iii	8 (0.97)	1 (0.63)	1 (384.40)
NBhū_283,2_283,11	PVA_588,vi_588,ix	24 (0.95)	5 (0.30)	3 (98.40)
NBhū_283,2_283,11	PVA_581,xi_582,i	115 (0.62)	7 (0.24)	4 (96.40)
NBhū_283,2_283,11	PVA_581,iv_581,vi	38 (0.92)	3 (0.32)	5 (88.00)
NBhū_284,25_285,1	PVin_II,008,iii	24 (0.95)	2 (0.46)	2 (103.00)
NBhū_284,25_285,1	PVA_485,iii_485,iv	50 (0.89)	5 (0.29)	3 (102.20)
NBhū_284,25_285,1	PVin_II,009,i_II,009,ii	16 (0.98)	3 (0.40)	4 (95.60)
NBhū_284,25_285,1	PVA_486,ii_486,iii	20 (0.97)	4 (0.38)	5 (68.00)
NBhū_285,24^3	PVA_475,xii_476,i	752 (0.28)	1 (0.10)	1 (55.00)
NBhū_285,24^3	PVin_II,004,i_II,004,iii	1071 (0.22)	2 (0.10)	2 (55.00)
NBhū_285,5	PVin_II,010,i	367 (0.33)	3 (0.15)	2 (59.60)
NBhū_288,13	PVSV_006,11_006,13	28 (0.98)	4 (0.43)	4 (86.00)
NBhū_288,13	PVin_I,061,i	142 (0.85)	13 (0.29)	5 (72.00)
NBhū_288,13	PVSV_005,09^2	2 (1.00)	5 (0.42)	6 (70.80)
NBhū_288,13	PVin_I,062,i_I,062,ii	6 (0.99)	7 (0.36)	7 (67.60)
NBhū_288,13	PVA_230,vii_230,ix	62 (0.95)	19 (0.25)	8 (56.20)
NBhū_288,13	PVin_I,063,iii	1 (1.00)	24 (0.22)	9 (53.40)
NBhū_288,6	PVSV_001,12^2	447 (0.41)	92 (0.13)	1 (74.00)
NBhū_288,6	PVSV_001,12^3	352 (0.51)	47 (0.16)	2 (68.00)
NBhū_288,6	PVin_I,074,i_I,074,ii	541 (0.35)	13 (0.22)	3 (67.80)
NBhū_290,17	PVin_I,099,i_I,099,ii	1 (1.00)	1 (0.64)	1 (187.00)
NBhū_290,17	PVSV_017,05_017,08	10 (1.00)	3 (0.34)	2 (169.40)
NBhū_290,17	PVSV_016,28_017,04	4 (1.00)	2 (0.50)	3 (134.40)
NBhū_290,22_290,26	PVin_I,100,i	11 (0.99)	1 (0.78)	1 (319.40)
NBhū_290,22_290,26	PVSV_017,05_017,08	1 (1.00)	2 (0.61)	2 (193.60)
NBhū_290,22_290,26	PVSV_017,12_017,18	103 (0.82)	3 (0.26)	3 (137.80)
NBhū_290,9	PVSV_020,09_020,19	170 (0.70)	3 (0.45)	2 (187.00)

NBhū doc id	PVA / PVin / PVSV doc id	topic	TF-IDF	sw
NBhū_290,9	PVin_I,089,i	1 (1.00)	1 (0.56)	3 (185.20)
NBhū_290,9	PVSV_016,28_017,04	5 (1.00)	4 (0.32)	5 (61.00)
NBhū_290,9	PVin_I,099,i_I,099,ii	3 (1.00)	5 (0.32)	6 (59.20)
NBhū_291,21	PVin_I,089,i	7 (0.96)	1 (0.43)	1 (98.00)
NBhū_291,21	PVSV_024,01_024,03	165 (0.69)	2 (0.42)	2 (98.00)
NBhū_291,21	PVin_I,085,iii	2 (0.96)	3 (0.20)	3 (54.00)
NBhū_291,21	PVSV_022,06_022,20	49 (0.90)	10 (0.13)	4 (54.00)
NBhū_292,13^1	PVin_I,085,i_I,085,ii	93 (0.71)	5 (0.22)	1 (113.60)
NBhū_292,13^1	PVSV_021,20_022,05	4 (0.96)	2 (0.24)	2 (112.80)
NBhū_292,13^1	PVin_I,086,ii^1	106 (0.69)	3 (0.24)	3 (100.40)
NBhū_292,13^1	PVSV_022,06_022,20	19 (0.87)	1 (0.27)	4 (98.80)
NBhū_292,4	PVSV_024,01_024,03	1 (0.93)	1 (0.34)	1 (141.20)
NBhū_294,12_294,16^1	PVin_II,085,i_II,085,iii	2 (0.84)	2 (0.34)	1 (146.20)
NBhū_294,12_294,16^1	PVSV_008,07_008,12	10 (0.78)	1 (0.37)	2 (123.80)
NBhū_294,12_294,16^1	PVSV_007,14_007,20	49 (0.69)	3 (0.33)	3 (91.00)
NBhū_294,12_294,16^1	PVin_II,084,i	1 (0.87)	4 (0.33)	4 (89.20)
NBhū_295,10_295,22	PVA_027,x_027,xiii	182 (0.55)	1 (0.21)	1 (92.00)
NBhū_295,27	PVA_028,i_028,iii	267 (0.68)	1 (0.24)	1 (83.00)
NBhū_296,14	PVA_028,ix	3 (0.99)	1 (0.81)	1 (327.40)
NBhū_296,14	PVA_028,x_028,xii	670 (0.79)	2 (0.26)	2 (96.40)
NBhū_296,21_296,28	PVA_028,x_028,xii	4 (0.97)	1 (0.50)	1 (198.60)
NBhū_296,21_296,28	PVA_028,xiii_028,xv	8 (0.94)	2 (0.40)	2 (160.40)
NBhū_296,8	PVA_028,iv_028,vii	1 (0.99)	1 (0.85)	1 (286.80)
NBhū_298,3	PVA_028,ix	433 (0.39)	22 (0.13)	1 (67.00)
NBhū_299,21^2	PVSV_006,20_006,24	24 (0.72)	1 (0.32)	1 (96.00)
NBhū_299,21^2	PVin_II,081,i_II,082,ii	183 (0.55)	4 (0.16)	2 (90.80)
NBhū_302,15	PVin_I,054,i^1	52 (0.96)	2 (0.61)	2 (290.00)
NBhū_302,15	PVA_613,vii_613,x	66 (0.94)	3 (0.33)	3 (95.80)
NBhū_302,15	PVA_613,iv_613,vi	67 (0.94)	4 (0.25)	4 (79.40)
NBhū_302,15	PVA_613,xi_613,xii	186 (0.69)	5 (0.20)	5 (70.20)
NBhū_303,29	PVin_I,095,iii	25 (0.84)	10 (0.17)	1 (57.20)
NBhū_303,29	PVSV_013,02	18 (0.85)	12 (0.16)	2 (57.20)
NBhū_303,29	PVA_607,i_607,iii	83 (0.79)	3 (0.21)	5 (50.20)
NBhū_304,9	PVSV_013,02	4 (0.94)	1 (0.56)	1 (236.20)
NBhū_304,9	PVin_I,095,iii	3 (0.94)	2 (0.50)	2 (178.60)
NBhū_320,20^1	PVA_560,v_560,ix	316 (0.27)	21 (0.18)	5 (51.40)
NBhū_327,16^1	PVSV_018,09_018,15	137 (0.59)	1 (0.17)	1 (84.00)
NBhū_355,26	PVA_044,iv	56 (0.72)	2 (0.51)	2 (71.00)
NBhū_380,21_381,1^1	PVA_169,iv_169,vi	94 (0.76)	1 (0.45)	1 (92.80)
NBhū_381,1^2	PVin_I,001,iv	90 (0.66)	1 (0.64)	1 (479.60)
NBhū_382,3	PVA_174,ii_174,iii	614 (0.36)	3 (0.15)	1 (142.80)

NBhū doc id	PVA / PVin / PVSV doc id	topic	TF-IDF	sw
NBhū_382,3	PVA_171,v_171,ix	345 (0.45)	28 (0.12)	2 (101.80)
NBhū_383,4_383,10	PVSV_107,19_107,22	242 (0.49)	1 (0.35)	1 (99.20)
NBhū_397,12_397,17	PVSV_112,16	903 (0.22)	5 (0.15)	1 (142.20)
NBhū_405,22^1	PVSV_135,08	1 (0.77)	1 (0.36)	1 (108.00)
NBhū_405,22^2	PVSV_135,20_135,21	68 (0.50)	1 (0.30)	1 (97.40)
NBhū_406,13	PVSV_125,23	116 (0.55)	1 (0.29)	1 (54.20)
NBhū_467,2_467,7	PVA_032,ix_032,xi	53 (0.68)	1 (0.48)	1 (136.20)
NBhū_467,2_467,7	PVA_034,vi	3747 (0.05)	5 (0.15)	4 (52.00)
NBhū_469,2_469,6	PVA_033,ix^1	3547 (0.06)	1 (0.22)	1 (88.00)
NBhū_469,23	PVA_052,viii_052,x	5 (0.94)	3 (0.32)	2 (91.00)
NBhū_469,23	PVA_052,xii_052,xiv	6 (0.93)	2 (0.43)	3 (90.20)
NBhū_470,15	PVA_034,xiii_034,xvi	231 (0.53)	1 (0.35)	1 (124.40)
NBhū_470,23^1	PVA_035,ii_035,viii	304 (0.62)	1 (0.39)	1 (87.00)
NBhū_471,19	PVA_035,xiii_036,ii	29 (0.81)	3 (0.27)	2 (91.20)
NBhū_472,06^2	PVA_036,iv_036,viii	18 (0.86)	1 (0.26)	1 (84.40)
NBhū_473,14_474,10	PVA_036,xvi_037,i	8 (0.89)	1 (0.25)	1 (156.20)
NBhū_473,14_474,10	PVA_037,xii_037,xvi	45 (0.75)	3 (0.17)	2 (85.20)
NBhū_473,14_474,10	PVA_037,vii_037,viii	90 (0.63)	4 (0.14)	3 (72.20)
NBhū_474,23_474,28	PVA_048,xiii_048,xiv	11 (0.74)	2 (0.34)	1 (217.00)
NBhū_474,23_474,28	PVA_048,viii	71 (0.59)	1 (0.37)	2 (87.00)
NBhū_474,23_474,28	PVA_048,v_048,vii	153 (0.51)	3 (0.16)	3 (68.60)
NBhū_476,20	PVA_040,x_040,xii	19 (0.86)	1 (0.46)	1 (249.40)
NBhū_476,20	PVA_040,xvii_040,xix	75 (0.67)	2 (0.22)	2 (179.40)
NBhū_476,20	PVA_040,xv_040,xvi	389 (0.29)	4 (0.17)	3 (88.60)
NBhū_478,13_478,19	PVA_035,xiii_036,ii	32 (0.80)	4 (0.22)	2 (61.60)
NBhū_479,10	PVA_038,xvii_039,ii	55 (0.72)	1 (0.36)	1 (171.40)
NBhū_480,13_480,15	PVA_043,v_043,vii	5 (0.85)	1 (0.58)	1 (201.60)
NBhū_480,13_480,15	PVin_II,096,i	42 (0.70)	4 (0.27)	3 (95.00)
NBhū_480,2	PVin_II,096,i	24 (0.83)	1 (0.35)	1 (95.00)
NBhū_480,2	PVA_042,xviii_042,xix	3 (0.96)	3 (0.27)	2 (95.00)
NBhū_480,2	PVA_042,xx_043,iii	27 (0.83)	4 (0.27)	4 (75.20)
NBhū_480,21	PVin_II,096,i	14 (0.79)	1 (0.31)	1 (184.60)
NBhū_480,21	PVA_045,xiii_046,i	1051 (0.17)	2 (0.22)	2 (92.80)
NBhū_481,3	PVA_042,ix	170 (0.48)	9 (0.12)	2 (93.60)
NBhū_481,3	PVA_049,ii_049,iv	5 (0.93)	5 (0.17)	3 (90.60)
NBhū_481,3	PVin_II,120,i_II,120,ii	189 (0.44)	8 (0.12)	4 (77.40)
NBhū_481,3	PVA_049,viii_049,x	53 (0.73)	4 (0.20)	5 (72.40)
NBhū_481,3	PVA_048,xix_049,i	10 (0.92)	2 (0.25)	6 (68.40)
NBhū_482,19_482,22	PVA_043,ix	63 (0.63)	1 (0.29)	1 (139.20)
NBhū_485,18_485,22	PVA_048,v_048,vii	47 (0.74)	111 (0.08)	1 (60.40)
NBhū_486,9_486,16	PVA_050,iv_050,v	4 (0.86)	3 (0.24)	1 (97.00)

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NBhū_486,9_486,16	PVA_049,xi_049,xvi	52 (0.80)	2 (0.27)	3 (87.20)
NBhū_501,7_501,12	PVA_068,iv_068,vii	1 (0.76)	1 (0.28)	1 (87.60)
NBhū_502,12_502,16	PVA_069,x_069,xi	194 (0.56)	1 (0.48)	1 (178.00)
NBhū_502,25	PVA_069,v_069,ix	261 (0.46)	1 (0.40)	1 (128.60)
NBhū_502,25	PVA_069,i_069,iv	367 (0.40)	2 (0.28)	2 (61.20)
NBhū_506,23	PVA_081,vii^2	129 (0.55)	1 (0.46)	1 (79.40)
NBhū_506,9	PVA_079,xv	13 (0.78)	1 (0.58)	1 (162.80)
NBhū_508,14_508,22	PVA_080,i^1	68 (0.72)	1 (0.28)	1 (53.20)
NBhū_509,16_509,20	PVin_I,080,i_I,080,ii	2 (0.93)	1 (0.24)	1 (71.00)
NBhū_514,17_514,20	PVA_175,xvi	157 (0.80)	1 (0.37)	1 (68.80)
NBhū_515,20	PVA_183,xi_183,xiv	156 (0.56)	1 (0.43)	1 (56.00)
NBhū_515,8_515,17	PVA_183,x	21 (0.76)	1 (0.68)	1 (354.20)
NBhū_516,22	PVA_177,xxii	764 (0.48)	2 (0.17)	1 (83.60)
NBhū_517,12_517,19	PVA_178,vi_178,viii	520 (0.62)	1 (0.41)	1 (336.00)
NBhū_518,13	PVA_184,i	55 (0.83)	1 (0.60)	1 (294.80)
NBhū_518,20_518,24	PVA_184,v_184,vi	13 (0.94)	1 (0.56)	1 (435.20)
NBhū_518,20_518,24	PVA_184,ii_184,iv	427 (0.82)	2 (0.42)	2 (255.40)
NBhū_518,20_518,24	PVA_184,xiii_185,i	319 (0.85)	4 (0.25)	3 (71.00)
NBhū_518,3_518,6	PVA_183,vi_183,viii	97 (0.72)	1 (0.25)	1 (221.20)
NBhū_519,6^1	PVA_186,viii	1727 (0.27)	1 (0.20)	1 (69.80)
NBhū_526,14	PVin_I,076,i	33 (0.98)	1 (0.53)	1 (226.80)
NBhū_526,14	PVSV_098,13_098,18	18 (0.98)	2 (0.38)	2 (187.80)
NBhū_527,10_527,15	PVSV_142,06_142,13	15 (0.84)	3 (0.18)	1 (53.00)
NBhū_527,10_527,15	PVSV_141,10_141,19	252 (0.67)	22 (0.11)	2 (52.00)
NBhū_527,18	PVSV_142,06_142,13	54 (0.97)	1 (0.39)	1 (122.80)
NBhū_529,27	PVSV_100,10_100,11	1 (1.00)	1 (0.63)	1 (305.20)
NBhū_529,27	PVin_I,083,i	76 (0.95)	2 (0.51)	2 (210.00)
NBhū_530,18	PVSV_143,05_143,08	74 (0.91)	1 (0.32)	1 (153.00)
NBhū_530,4	PVSV_100,10_100,11	15 (1.00)	3 (0.26)	1 (74.00)
NBhū_530,4	PVin_I,083,i	69 (0.97)	11 (0.19)	2 (70.40)
NBhū_533,10	PVin_I,081,ii	1 (0.97)	3 (0.28)	1 (153.40)
NBhū_533,10	PVSV_098,20^4	2 (0.97)	2 (0.31)	2 (138.20)
NBhū_533,10	PVSV_144,24	362 (0.63)	1 (0.32)	3 (78.80)
NBhū_533,2_533,5	PVSV_144,15_144,22	8 (0.99)	1 (0.35)	1 (91.00)
NBhū_534,20_535,1	PVSV_145,27^1	3 (0.97)	1 (0.49)	1 (289.20)
NBhū_535,24	PVSV_145,27^1	2518 (0.13)	1 (0.34)	1 (63.20)
NBhū_536,09	PVSV_145,27^2	97 (0.85)	2 (0.48)	1 (409.80)
NBhū_536,09	PVSV_145,27^1	100 (0.85)	1 (0.51)	3 (78.00)
NBhū_537,23	PVSV_145,27^2	221 (0.68)	10 (0.12)	1 (64.40)
NBhū_538,18	PVSV_146,17_146,18^1	197 (0.77)	5 (0.18)	1 (51.00)
NBhū_539,2_539,8	PVSV_148,07_148,12	7 (0.98)	1 (0.70)	1 (269.40)

NBhū doc id	PVA / PVin / PVSV doc id	topic	TF-IDF	sw
NBhū_539,2_539,8	PVSV_148,14	21 (0.97)	3 (0.18)	2 (54.80)
NBhū_548,27	PVA_147,xii_147,xiii	147 (0.89)	4 (0.27)	2 (103.40)
NBhū_548,27	PVA_147,xiv_147,xvii	34 (0.98)	3 (0.30)	3 (92.40)
NBhū_548,27	PVA_146,xii_147,ii	40 (0.98)	2 (0.37)	4 (86.00)
NBhū_549,19_549,25	PVA_146,xii_147,ii	297 (0.50)	2 (0.23)	1 (54.60)
NBhū_549,28	PVA_147,xi	196 (0.61)	6 (0.21)	2 (55.20)
NBhū_551,17	PVin_II,075,iii_II,075,v	2342 (0.11)	2 (0.20)	1 (108.40)
NBhū_551,17	PVSV_095,11_095,17	2577 (0.11)	1 (0.23)	2 (104.40)
NBhū_551,24_552,1	PVSV_104,15^4_105,20	119 (0.66)	2 (0.26)	1 (176.20)
NBhū_551,24_552,1	PVin_II,067,i	105 (0.68)	1 (0.28)	2 (172.80)
NBhū_567,20_567,25	PVA_647,iv_647,vi	147 (0.61)	2 (0.25)	1 (96.80)

For relevant textual excerpts and links into the Vātāyana interface, cp. Appendix 17D below.

Appendix 17: Sample Listing of Vātāyana Search Hits for Entire NBhū

The following HTML table presents a sample portion of the Vātāyana output for similarity search on *all* NBhū documents in the Pramāṇa NLP corpus as compared against all other *non-NBhū* documents in the corpus, provided that the Smith-Waterman score is greater than or equal to 50. (It is also entirely possible to compare e.g. the NBhū against itself, if one wished to also study the work's internal intertextual relations.) The static sample below consists of only the first 54 out of 1,442 such parallels detected.

Intertextual parallels suggested hereby are by no means guaranteed to be all relevant or fully comprehensive, since, on the one hand, many are clearly cases of quoting common third sources, and on the other hand, many other cases of shorter and/or more extensively paraphrased material of course also exist. Nevertheless, this sample listing of results demonstrates Vātāyana's ability to automatically generate such a baseline for further study. Search settings are the same as elsewhere in this study (N1: 15%, N2: 200). These and even the score threshold settings can easily be changed.

Search Results for NBhū_1,7_2,2 – NBhū_598,17_598,19

doc_id_1	doc_id_2	topic (all)	topic (priority)	tf:idf	sw	text of best match (doc 1)	dcCp url
NBhū_6,10_6,13	PST_I,21,i_I,21,ii	21 (0.70)	21 (0.70)	7 (0.15)	1 (96.00)	prasiddhānī pramāṇāni vyavahārah ca tad kṛtāḥ pramāṇā laksanasya uktā jñāyate na prayojanam iti	dcCp ↗
NBhū_14,17^1	NV_086,03^4	56 (0.87)	55 (0.87)	43 (0.14)	1 (51.60)	samāna dharma upalambhe api upalabdhī anupalabdhī avyavasthām apि viśeṣa ākāṅksā bhāvāt na samśayāḥ	dcCp ↗
NBhū_15,28^1	VST_21,iii_21,iv	130 (0.75)	118 (0.75)	4 (0.30)	1 (69.00)	tulya jātiyēṣu artha antara bhūteṣu ca viśeṣasya ubhayathā drṣṭā tvāt	dcCp ↗
NBhū_15,28^1	VS_2,2,20_2,2,28	40 (0.84)	36 (0.84)	10 (0.21)	2 (69.00)	tulya jātiyēṣu artha antara bhūteṣu ca viśeṣasya ubhayathā drṣṭā tvāt na	dcCp ↗
NBhū_15,28^1	NV_087,07^4	121 (0.76)	109 (0.76)	12 (0.18)	3 (69.00)	tulya jātiyēṣu artha antara bhūteṣu ca viśeṣasya ubhayathā drṣṭā tvāt	dcCp ↗
NBhū_15,28^1	PDnS_239,10_239,13	51 (0.83)	46 (0.83)	8 (0.26)	4 (64.60)	tulya jātiyēṣu artha antara bhūteṣu ca viśeṣasya ubhayathā drṣṭā tvāt	dcCp ↗
NBhū_15,28^1	NyKand_577,ii^1	88 (0.80)	80 (0.80)	6 (0.30)	5 (63.60)	tulya jātiyēṣu artha antara bhūteṣu ca viśeṣasya ubhayathā drṣṭā tvāt	dcCp ↗
NBhū_15,28^1	NyKand_576,ii	24 (0.85)	21 (0.85)	3 (0.33)	6 (61.00)	tulya jātiyēṣu artha antara bhūteṣu ca viśeṣasya ubhayathā drṣṭā tvāt	dcCp ↗
NBhū_16,18	VyV_II,197,6	100 (0.79)	91 (0.79)	1 (0.25)	1 (57.20)	tulya bala tve tayoḥ virodhāt nirmaya anutpādaka tvam syāt na samśaya utpādaka tvam	dcCp ↗
NBhū_16,18	PDhS_239,2_239,6	72 (0.82)	66 (0.82)	2 (0.22)	2 (57.20)	tulya bala tve tayoḥ virodhāt nirmaya anutpādaka tvam syāt na samśaya utpādaka tvam	dcCp ↗
NBhū_16,18	NyKand_574,i	186 (0.67)	171 (0.67)	9 (0.17)	3 (56.40)	iti tulya bala tve tayoḥ virodhāt nirmaya anutpādaka tvam syāt na samśaya utpādaka tvam iti	dcCp ↗
NBhū_17,4	PDhS_296,1	557 (0.30)	501 (0.30)	2 (0.30)	1 (66.40)	athā ca gamana tvam kim karma tv a paryāyah āhosvit aparam sāmānyam iti praśnam kurvataḥ kutas te samśayah iti anuyogam ca krtvā sarvesu utkṣepaṇa ādiṣu karma tv a vat anugata prataya	dcCp ↗
NBhū_17,4	NyKand_647,i	380 (0.41)	342 (0.41)	3 (0.27)	2 (62.00)	tathā ca gamana tvam kim karma tv a paryāyah āhosvit aparam sāmānyam iti praśnam kurvataḥ kutas te samśayah	dcCp ↗
NBhū_17,12^1	NV_083,17_083,19	41 (0.87)	40 (0.87)	12 (0.26)	1 (95.60)	papatteḥ upalabdhī anupalabdhī ayavasthātah viśeṣa apekṣāḥ vimarśāḥ samśayaḥ iti evam samāna dharmā upapatteḥ	dcCp ↗

doc_id_1	doc_id_2	topic (all)	topic (priority)	tf-idf	sw	text of best match (doc 1)	dcCp url
NBhū_17,12^1	NBh_0233,ii_0234,ii	9 (0.89)	9 (0.89)	5 (0.35)	2 (93.80)	papatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah anupalabdhī upapatteḥ vimarsah samṣayah iti evam samāna dharmā	dcCp ↗
NBhū_17,12^1	NM_II,522,iii	6 (0.89)	6 (0.89)	1 (0.52)	3 (84.20)	papatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah anupalabdhī upapatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah iti evam	dcCp ↗
NBhū_17,12^1	NV_086,03^4	58 (0.84)	55 (0.84)	8 (0.29)	4 (78.80)	upapatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah iti	dcCp ↗
NBhū_17,12^1	NV_092,10^1	29 (0.87)	29 (0.87)	2 (0.48)	5 (73.00)	upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah anupalabdhī upapatteḥ upalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah iti evam samāna dharmā upapatteḥ ity ādiṣu api yojyam evam ca sarvatra api upalabdhī visaye anupalabdhī visaye ca samśaya prasāṅgaḥ iti anupapa	dcCp ↗
NBhū_17,12^1	NS_1.1.18_1.1.24	236 (0.58)	216 (0.58)	6 (0.32)	6 (72.60)	ksah vimarsah samṣayah anupalabdhī upapatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah	dcCp ↗
NBhū_17,12^1	NM_II,522,i	105 (0.80)	96 (0.80)	9 (0.27)	7 (72.60)	papatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah an	dcCp ↗
NBhū_17,12^1	NM_II,528,v	100 (0.80)	93 (0.80)	14 (0.25)	8 (58.20)	upapatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vi	dcCp ↗
NBhū_17,12^1	NV_086,03^3	24 (0.88)	24 (0.88)	4 (0.43)	9 (57.60)	upapatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah anupalabdhī upapatteḥ upalabdhī anupalabdhī ayavasthātāḥ	dcCp ↗
NBhū_17,12^1	NV_086,03^2	14 (0.89)	14 (0.89)	7 (0.30)	10 (50.00)	upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah anupalabdhī upapatteḥ upalabdhī anupalabdhī ayavasthātāḥ viśeṣa apeksah vimarsah samṣayah iti evam samāna dharmā upapatteḥ i	dcCp ↗
NBhū_17,12^2	NBh_0249,iii_0255,i	58 (0.65)	53 (0.65)	6 (0.25)	1 (93.00)	samānaḥ anekāḥ ca dharmāḥ jñeya sthāḥ upalabdhī anupalabdhī punar jñāṭṛ sthe etāvataḥ viśeṣena pṛthak vacanam	dcCp ↗
NBhū_17,12^2	NV_091,19	76 (0.63)	68 (0.63)	4 (0.27)	2 (76.00)	samānaḥ anekāḥ ca dharmāḥ jñeya sthāḥ upalabdhī anupalabdhī punar jñāṭṛ sthe et	dcCp ↗
NBhū_17,12^2	VyV_II,118,21_II,119,6	12 (0.68)	9 (0.68)	20 (0.17)	3 (76.00)	samānaḥ anekāḥ ca dharmāḥ jñeya sthāḥ upalabdhī anupalabdhī punar jñāṭṛ sthe et	dcCp ↗

doc_id_1	doc_id_2	topic (all)	topic (priority)	tf-idf	sw	text of best match (doc 1)	dcCp url
NBhū_20,5^3	NBh_0035,i	6 (0.71)	4 (0.71)	2 (0.25)	1 (68.20)	katham na anupalabdhe na nirmite arthe nyāyah pravaritite kim tarhi samśayite	<u>dcCp ↬</u>
NBhū_23,21	TUS_134,i_134,iv	1 (0.96)	1 (0.96)	1 (0.44)	1 (100.60)	dharmaḥ vā yadi dharmī sa tattvikah atattvikah vā yadi tattvikah katham tad buddheḥ sandeha nūpa tā tattvika artha gr̥hi iti rūpa tvat kara tala ādi nirmaya vat artha atattvikah tathā api atattvika artha viśaya tvat keśa ādi jñāna vat bhṛantih eva na sandehaḥ atha dharmaḥ sthānu tva lakṣaṇaḥ purusaḥ tva lakṣaṇaḥ ubhayam vā yadi sthānu tva lakṣaṇaḥ tatas tattvikā tattvikayoh.	<u>dcCp ↬</u>
NBhū_23,21	TUS_134,v	8 (0.81)	7 (0.81)	2 (0.34)	2 (53.00)	atha ubhayam tathā api ubhayasya tattvikā tattvikayoh sah eva dosah atha ekasya tattvika tvam anyasya atat tvika tvam tathā api	<u>dcCp ↬</u>
NBhū_23,21	TUS_108,iii_110,i	20 (0.78)	19 (0.78)	4 (0.26)	3 (53.00)	sa tattvikah atattvikah vā yadi tattvikah katham tad ca iti udaka prapañcaḥ ayam madhura udaka ādi vat tatra yathā satya udaka buddhau nāsatya udakam pratibhāti anudakam vā evam asatyā udaka jñāne api na satya udakam pratibhāti anudakam vā iti svā viśaye paryavasāyinyah hi buddhayah	<u>dcCp ↬</u>
NBhū_33,8	TUS_116,i_116,ii	15 (0.96)	11 (0.96)	1 (0.71)	1 (96.20)	a jñāne yat punar etad viparyaya jñānam sva kāraṇa sāmarthyat tathavidham utpannam yat bādhaka jñāna upāda pratibandha kṛt tat havamṣaḥ api tathāvidhah eva paresta samyak jñāna vat	<u>dcCp ↬</u>
NBhū_36,18	TUS_074,v	373 (0.57)	272 (0.57)	1 (0.29)	1 (85.80)	yadā svatas pramāṇa tvam tadā anyat na eva mrgyate mivartite hi mithyātvam doṣa ajñānāt ayamatass svatas	<u>dcCp ↬</u>
NBhū_38,19^1	ŚV_2.52ab_2.54cd	27 (0.94)	26 (0.94)	2 (0.22)	1 (92.80)	yat hūḥ eke yadā svatas pramāṇa tvam tadā anyat na eva mrgyate nivartite hi mithyātvam doṣa ajñānāt ayamatass	<u>dcCp ↬</u>
NBhū_38,19^1	VyV_II,167,7	33 (0.93)	32 (0.93)	20 (0.14)	2 (88.00)	au uktaḥ mṛd cakra danḍa sūtra ādi ghataḥ janmani apekṣate udaka āharane tasya tad apekṣaḥ na vidyate	<u>dcCp ↬</u>
NBhū_39,24	NM_I,424,i_I,424,jii	688 (0.43)	642 (0.43)	4 (0.31)	1 (82.80)	am tasmāt bodha ātmaka tvena prāptā buddhēḥ pramāṇa tā arthānyathātva hetu uttha doṣa jñānāt apodyate iti tat a	<u>dcCp ↬</u>
NBhū_40,8^1	NM_I,431,iii_I,431,iv	116 (0.71)	110 (0.71)	3 (0.20)	1 (106.00)	tam tasmāt bodha ātmaka tvena prāptā buddhēḥ pramāṇa tā arthānyathātva hetu uttha doṣa jñānāt apodyate	<u>dcCp ↬</u>
NBhū_40,8^1	ŚV_2.52ab_2.54cd	8 (0.82)	7 (0.82)	1 (0.26)	2 (98.00)		<u>dcCp ↬</u>

doc_id_1	doc_id_2	topic (all)	topic (priority)	tf-idf	sw	text of best match (doc 1)	dcCp url
NBhū_40,8^3	NM_I,434,i	25 (0.93)	24 (0.93)	4 (0.19)	1 (98.80)	uktam evam tri catur ajñāna janmanah na adhikā matih prārthyate tāvat eva ekam svatas prāmānyam asñute	<u>dcCp ↲</u>
NBhū_40,8^3	ŚV_2.58cd_2.61cd	64 (0.89)	61 (0.89)	1 (0.20)	2 (95.20)	evam tri catur ajñāna janmanah na adhikā matih prārthyate tāvat eva ekam svatas prāmānyam asñute	<u>dcCp ↲</u>
NBhū_42,1^2	VyV_II,166,7	106 (0.77)	100 (0.77)	2 (0.46)	1 (274.00)	anavasthā syat tat uktam jāte api yadi vijñāne tāvat na arthah avadhāryate yāvat kāraṇa śuddha tvam na pramāṇa antarāt gatam tatra jñāna antara utpādah pratikṣyah kāraṇa antarāt yāvat dhi na paricchimnā tāvat śuddhiḥ asat samā tasya api kāraṇe śudhē tad jñāne syat pramāṇa tā tatra api evam iti itham ca na kvacid vyavatisthate	<u>dcCp ↲</u>
NBhū_42,1^2	ŚV_2.49ab_2.51cd	14 (0.87)	13 (0.87)	1 (0.65)	2 (269.00)	jāte api yadi vijñāne tāvat na arthah avadhāryate yāvat kāraṇa śuddha tvam na pramāṇa antarāt gatam tatra jñāna antara utpādah pratikṣyah kāraṇa antarāt yāvat dhi na paricchimnā tāvat śuddhiḥ asat samā tasya api kāraṇe śudhē tad jñāne syat pramāṇa tā tatra api evam iti itham ca na kvacid vyavatisthate	<u>dcCp ↲</u>
NBhū_46,13^2	PVin_I,031,i	64 (0.89)	64 (0.89)	2 (0.51)	1 (322.80)	na hi kriyāyāḥ sādhanam iti eva sarvam sarvasyāḥ sādhanam kiṁtu yā yatas prasiddhim upayāti tatra anubhava mātreṇa sadṛśa ātmānaḥ jñānasya sarvatra karmaṇī tena ātmānaḥ bhavitavyam yena asya idam iti pratikarma vibhajyate anātma bhūtaḥ ca asya indriya artha sannikarsa adiṣu hetusu vidyamānaḥ api bhedah bhinne karmaṇī abhinna ātmānaḥ na bhedena miyāmakaḥ kriyāyāḥ nibandha tvāt kāraṇa tvasya	<u>dcCp ↲</u>
NBhū_46,13^1	PV_3.301ab_3.303cd	2 (0.98)	2 (0.98)	1 (0.55)	2 (108.00)	kriyāyāḥ sādhanam iti eva sarvam sarvasyāḥ sādhanam kiṁtu yā yatas prasiddhim upayāti tatra anubhava mātreṇa sadṛśa ātmānaḥ jñānasya sarvatra karmaṇī tena ātmānaḥ bhavitavyam yena asya idam iti pratikarma vibhajyate anātma bhūtaḥ ca asya indriya artha sannikarsa adiṣu hetusu vidyamānaḥ api bhedah bhinne karmaṇī abhinna ātmānaḥ na bhedena miyāmakaḥ	<u>dcCp ↲</u>
NBhū_46,13^1	NyKand_305,i	153 (0.86)	152 (0.86)	6 (0.25)	3 (103.00)	a tāṭh uktam arthena ghatayati enām na hi muktvā artha rūpa tām tasmat̄ prameya adhigatēḥ pramāṇam meya rūpa tā	<u>dcCp ↲</u>

doc_id_1	doc_id_2	topic (all)	topic (priority)	tf-idf	sw	text of best match (doc 1)	dcCp url
NBhū_46,13^1	PVin_I,029,iii_I,030,ii	1096 (0.40)	1033 (0.40)	13 (0.18)	4 (97.00)	tam arthena ghatayati enām na hi muktvā artha rūpa tām tasmāt prameya adhigatēḥ pramāṇam meya rūpa tā	<u>dcCp ↬</u>
NBhū_46,13^1	TUS_254,i_254,ii	2292 (0.16)	2154 (0.16)	15 (0.17)	5 (94.00)	ca tāḥ uktam arthena ghatayati enām na hi muktvā artha rūpa tām tasmāt prameya adhigatēḥ pramāṇam meya rūpa tā	<u>dcCp ↬</u>
NBhū_46,13^1	PVA_341,x_342,iv	277 (0.79)	270 (0.79)	19 (0.13)	6 (51.60)	vidyamāṇah̄ apī bhedah̄ bhinne karmaṇi abhinna	<u>dcCp ↬</u>
NBhū_46,13^1	PV_3,304ab_3,306cd	4 (0.97)	4 (0.97)	4 (0.32)	7 (50.00)	arthena ghatayati enām na hi muktvā artha rūpa tām ta	<u>dcCp ↬</u>
NBhū_46,13^1	PVA_342,vi_342,x	9 (0.94)	9 (0.94)	8 (0.24)	8 (50.00)	tam arthena ghatayati enām na hi muktvā artha rūpa tām ta	<u>dcCp ↬</u>
NBhū_46,13^1	PVV_209,ix_210,i^1	14 (0.92)	14 (0.92)	10 (0.21)	9 (50.00)	am arthena ghatayati enām na hi muktvā artha rūpa tām ta	<u>dcCp ↬</u>
NBhū_46,13^2	PVin_I,031,i	3 (0.92)	3 (0.92)	1 (0.77)	1 (588.20)	tad aviseṣe tasyāḥ apī viśeṣa asiddhe sataḥ apī vā viśeṣasya tad anāṅga taya kāraṇa tvāt tasmāt yatas asya ātma bhedāt asya iyam adhigatih̄ iti ayam asyāḥ karmaṇi niyamah̄ tad sādhanam na ca iyam artha ghatanā artha sārūpyāt anyatas jñānasya sambhavati na hi patu manda aksa ḍibbhīḥ sva bhedaiḥ bhedakam apī indriya ādi arthena etat ghatayati tatra prayāsatti nibandhana abhavāt asti anubhava viśesah artha krtah yatas iyam pratiṭīh̄ na sārūpyat iti ced atha kim idānīm sataḥ apī rūpam na nirdiśyate na idam idantayā śākyam vyapadeśṭum anirūpitena ayam ātmānā bhāvan̄ vyavasthāpayaḥ idam asya idam na iti su vyavasthitih̄ bhāvāḥ	
NBhū_46,13^2	PV_3,304ab_3,306cd	95 (0.85)	94 (0.85)	2 (0.29)	2 (61.40)	t tasmāt yatas asya ātma bhedāt asya iyam adhigatih̄ iti ayam asyāḥ karmaṇi niyamah̄ tad sādhanam na ca iyam artha ghatanā artha sārūpyat anyatas jñānasya	<u>dcCp ↬</u>
NBhū_46,13^2	PVV_209,vii_209,vii	122 (0.84)	121 (0.84)	6 (0.21)	3 (54.20)	t tasmāt yatas asya ātma bhedāt asya iyam adhigatih̄ iti ayam asyāḥ karmaṇi niyamah̄ tad sādhanam na ca iyam artha ghatanā artha sārūpyat anyatas jñānasya	<u>dcCp ↬</u>
NBhū_49,12	PVin_I,032,i	76 (0.76)	67 (0.76)	1 (0.81)	1 (255.00)	ādhānam yat āha sādhane anyatra tad karma sambandhāt na prasidhyati sā ca tasyā atma bhūta eva tena na artha antaram phalam dadhānam tat ca ātmānī artha adhigamana ātmānā savya apāram iva ābhāti vyāpārena sva karmaṇi tad vyāsāt tad vyavasthānāt akārakam api svayam iti	<u>dcCp ↬</u>

Appendix 17D: Full Listing of Vātāyana Search Hits for Entire NBhū

The full output corresponding to the static sample in Appendix 17 contains 1,442 parallels. It is available for browsing in electronic form, complete with links into the Vātāyana online interface, at:

<https://github.com/tylergneill/vatayana> > “assets” > “nbhu_sample_results”

Overview of Digital Appendices

- 1D Full-Text Alignment of Joshi 1986 to Yogīndrānanda 1968
https://github.com/tylergneill/nbhu_materials > “align_nbhu_pratyaksa”
- 2D Command-Line Tool “Pandit Grapher”
https://github.com/tylergneill/pandit_grapher
- 4D Transcript and Collation Data for NBhū 104–154
https://github.com/tylergneill/nbhu_materials > “edit_nbhu_104-154”
- 5D Command-Line Tool “cte2cex” for Transcript Data Conversion
<https://github.com/tylergneill/cte2cex>
- 6D Deployment of Brucheion for Interactive Transcript Data
<http://brucheion-nbhu.herokuapp.com>
- 7D Alternate Version of Edition with Highlighted Improvements
https://github.com/tylergneill/nbhu_materials > “edit_nbhu_104-154”
 > “edition_hl.pdf”
- 8D Digital Forms of Translation of NBhū 104–154
https://github.com/tylergneill/nbhu_materials > “translate_nbhu_104-154”
- 11D Skrutable Text Processing Library and Web Application
<https://www.skrutable.info>
<https://github.com/tylergneill/skrutable>
https://github.com/tylergneill/skrutable_front_end
- 12D Pramāṇa NLP Corpus, Metadata, and LDA Modeling Info
<https://github.com/tylergneill/pramana-nlp>
- 13D Vātāyana Intertextuality Research Web Application
<https://www.vatayana.info>
<https://github.com/tylergneill/vatayana>
- 14D Full Yamakami Citation Benchmark for NBhū 104–154
https://github.com/tylergneill/nbhu_materials > yamakami_citation_benchmark
- 17D Full Listing of Vātāyana Search Hits for Entire NBhū
<https://github.com/tylergneill/vatayana> > “assets”
 > “nbhu_sample_results”

Summary of Results

1. Most likely productive in mid-10th century Kashmir, Bhāsarvajña was a somewhat heterodox thinker who composed two works in the Sanskrit philosophical text tradition of Nyāya: the aphoristic Nyāyasāra, and some time later, the much larger Nyāyabhūṣaṇa, a comprehensive auto-commentary containing many polemical digressions directed toward rival traditions. In addition, contrary to early claims that Bhāsarvajña wrote the small Pāśupata Śaiva manual Gaṇakārikā, recent scholarship instead attributes to him the Ratnaṭīkā commentary, although positive evidence to that effect is still scarce.
2. Of Bhāsarvajña's two Nyāya works, the nearly 600-page Nyāyabhūṣaṇa (NBhū) has been less well studied. The printed edition was published by Swami Yogindrānanda (1968) on the basis of a single manuscript (a now-lost apograph of P1). The edition is quite readable, but it can definitely be improved on the basis of the three extant manuscripts (P1, P2, and V). Previous scholarship, including even Yamakami's (1999) work on NBhū 104–154, has not yet realized the full potential of these primary witnesses.
3. The first of the NBhū's three chapters, on direct perception (*pratyakṣa*), was the closest to being fully translated into modern languages. Joshi (1986) translated NBhū 1–104 and 154–187 into English, and Yamakami (1999) translated the rest (104–154) into Japanese. However, Joshi compromised the value of his translation by constantly interspersing his own explanatory thoughts without marking them as such (I clarify the exact correspondence here through comprehensive text alignment). Meanwhile, although Yamakami's work on the difficult Buddhist polemics of NBhū 104–154 is more scholarly in nature (including excellent intertextual annotations), it still fails to be sufficiently helpful for a wide scholarly audience.
4. Using the complete manuscript P1 and the partial Śāradā manuscript V (which covers NBhū 1–151), the text of NBhū 104–154 has here been re-edited and translated into English. Editing produced hundreds of improvements to the text, plus many gains related to clearer punctuation (e.g., more informative paragraph breaks). The edition is accompanied by several critical apparatuses, including one for meaningful variant readings.
5. The editing process relied on several software tools and also contributed to further software development. Following the method used in the DFG Nyāyabhāṣya project, manuscript images were first transcribed in full. Then, this transcription data was fed into two automatic collation systems. On the one hand, Classical Text Editor, written by Stefan Hagel, provided one-time collation of variant readings, with the abilities to iteratively save editing decisions and typeset pages of the printed edition, complete with numerous critical apparatuses. On the other hand, Bruchēion, written by Thomas Köntges, coordinated image and text data dynamically, in real-time and in-browser, allowing for convenient supplementary interactive visualization and thereby providing a useful second perspective on the raw data. Several features were added to Bruchēion for the present project, including Sanskrit orthography normalization, a transcription import pipeline (cte2cex), and a working online version with data for NBhū 104–154 (on Heroku).
6. The accompanying English translation is word-for-word, with clear bracketing of material supplied from context, and with fully grammatical English both with and without bracketed

material. Additionally provided digital versions of the translation (in LaTeX and Markdown) encourage users to manipulate the content as they see fit, including by removing bracketed material. Paragraphs are by design aligned to those of the edition, and section headers constitute an analytic outline.

7. To complete the close reading, numerous annotations to the translation, along with some introductory and discussion material, attempt to explain some of the more difficult philosophical details found throughout the passage NBhū 104–154. Alongside myriad smaller details of argumentation, these include: divergent notions of perceptual error (*khyāti*), especially regarding apprehension of difference (*bheda*) between subject and object; the nature of epistemological validity (*prāmāṇya*), especially in the context of inferential arguments; and an implicit disagreement on meta-theoretical use of distinct kinds of truth (*satya*). These supplementary explanations aim to clarify individual points and do not amount to a full analytic study.

8. Through this close reading work, it also becomes clear that Bhāsarvajña's treatment of the controversy over the ontological status of the composite whole (*avayavin*) is a combination of arguments from previous Naiyāyikas (e.g., as found in NS, NBh, and NV), from Mīmāṃsā (e.g., ŚV), and from the skeptic Jayarāśi (TUS). Bhāsarvajña's main opponents are clearly the Buddhists Dharmakīrti and Prajñākaragupta, although he also has recourse to Dignāga, Vasubandhu, and older Buddhist arguments.

9. These intertextual relations are also confirmed in Part II of the study, which constructs a system for automatically detecting a range of more and less verbatim parallels within a corpus of Sanskrit philosophical texts, which enables a kind of supportive distant reading. The constructed system demonstrates the usefulness of several natural language processing methods for this purpose, and it is shared according to open-source principles, with easily accessible data, code, and online interface. Close and distant readings are integrated in the present study of NBhū primarily in the form of hyperlinks from the translation document to the Vātāyana web interface, where readers can view color-coded juxtapositions of relevant text passages as well as conduct further document similarity searches.

10. Previously existing electronic text resources in this area of Sanskrit philosophy were insufficient to conduct such computational linguistic research, so a new curated corpus was produced, combining pre-existing text resources (especially including from SARIT, never previously used for such purposes due to its complex XML encoding) with, as needed, new digitizations (e.g., Vyomaśiva's *Vyōmavatī*). The corpus, called Pramāṇa NLP, consists of about 50 works spanning Sanskrit philosophy of predominantly the first millennium. It is stored publicly on GitHub.

11. In the course of preparing this corpus, it was necessary to consolidate and improve resources for performing Sanskrit transliteration, meter detection, and word segmentation. These were packaged together as a library and web application named Skrutable, which is easily available online and works in-browser.

12. Working with this newly curated corpus material, a novel intertextuality detection algorithm was developed on the basis of topic modeling, TF-IDF, and Smith-Waterman local

alignment. Topic modeling is performed with the software ToPān (by Thomas Köntges), and qualitative examination of the results using LDAvis and other tools is the first of its kind for Sanskrit. On the basis of K=75 topic scores, individual text passages (or documents, the size of small paragraphs) are modeled in a low-dimensional vector space and thereby assessed for preliminary semantic similarity. More word-for-word similarity is then assessed with a modified version of TF-IDF scores, whereby documents are modeled in another vector space defined by the shared vocabulary of any given two passages. Finally, a combination of Smith-Waterman local alignment (at both word and character levels) and CollateX global alignment is used to detect and highlight similar phrases across passages.

13. Access to the corpus and interaction with the intertextuality detection algorithm and its search results are facilitated through a live web-app interface, called Vātāyana (Sanskrit for “window”). Various user settings allow for control of system parameters, numerous visualization features help users understand underlying topics, and intertextuality results are returned as ranked lists in DataTables format, allowing for easy keyword filtering and resorting e.g. by component scores.

14. In order to better ground this system in existing scholarship, its intertextuality detection performance is assessed by way of a benchmark composed of previously ascertained parallels, namely, citations in Yamakami's (1999) footnotes on NBhū 104–154. Performance is assessed to be quite good at 80% recall@5, meaning that most previously known cases of mid-length quotation and even paraphrase are automatically found and returned within the system's top five hits, given current settings. The system also returns a 34% surplus of additional hits not in the small benchmark, suggesting both the early stage of such assessment in the field of Sanskrit computational linguistics and that Vātāyana can play a useful role in making new discoveries.

15. The modular design of the intertextuality detection system also allows for conducting such intertextuality searches in batch-mode (currently only offline), whereby intertextuality reports are easily generated for entire chapters or books at once. Such reports in turn allow one to quantitatively assess intertextual relationships between works at very large scales, as well as to follow up on individual cases through Vātāyana's online interface.

Zusammenfassung (Thesen zur Dissertation)

1. Wahrscheinlich produktiv Mitte des 10. Jahrhunderts in Kaschmir, Bhāsarvajña war ein etwas heterodoxer Denker, der zwei Werke in der Sanskrit-philosophischen Texttradition von Nyāya verfasste: das aphoristische Nyāyasāra und das viel umfangreichere Nyāyabhūṣaṇa, ein umfassender Auto-Kommentar mit vielen polemischen Abschweifungen, die auf rivalisierende Traditionen gerichtet sind. Im Gegensatz zu früheren Behauptungen, dass Bhāsarvajña das kleine Pāśupata-Śaiva-Handbuch Gaṇakārikā geschrieben hat, schreibt ihm die neuere Forschung stattdessen den Kommentar dazu Ratnaṭīkā zu, obwohl die positive Beweise dafür immer noch gering sind.
2. Von Bhāsarvajñas zwei Nyāya-Werken ist das fast 600 Seiten starke Nyāyabhūṣaṇa (NBhū) weniger untersucht worden. Die gedruckte Ausgabe wurde von Swami Yogīndrānanda (1968) auf Basis eines einzigen Manuskripts (eines heute verschollenen Apograph von P1) herausgegeben. Die Ausgabe ist relativ gut lesbar, kann aber anhand der drei erhaltenen Handschriften (P1, P2 und V) durchaus verbessert werden. Frühere Forschungen, einschließlich Yamakamis (1999) Arbeiten zu NBhū 104–154, haben noch nicht das volle Potenzial dieser Hauptzeugen erkannt.
3. Das erste der drei Kapitel des NBhū über die direkte Wahrnehmung (*pratyakṣa*) war der vollständigen Übersetzung in moderne Sprachen am nächsten. Joshi (1986) übersetzte NBhū 1–104 und 154–187 ins Englische und Yamakami (1999) übersetzte den Rest (104–154) ins Japanische. Joshi kompromittierte jedoch den Wert seiner Übersetzung, indem er ständig seine eigenen erklärenden Gedanken einsetzt, ohne sie als solche zu kennzeichnen (die genaue Entsprechung wird hier durch umfassendes Text-Alignment erklärt). Ähnlicherweise, obwohl Yamakamis Arbeit über die schwierige buddhistische Polemik von NBhū 104–154 einem erhöhten wissenschaftlichen Standard entspricht (einschließlich hervorragender intertextueller Anmerkungen), ist es für ein breites wissenschaftliches Publikum immer noch nicht ausreichend hilfreich.
4. Unter Verwendung des vollständigen Manuskripts P1 und des teilweisen (NBhū 1–151 umfassenden) Śāradā-Manuskripts V wird der Text von NBhū 104–154 hier ganz neu herausgegeben und ins Englische übersetzt. Durch die Bearbeitung wurden Hunderte von Verbesserungen des Textes sowie viele Vorteile im Zusammenhang mit klareren Zeichensetzungen (z.B. informativeren Absatzumbrüchen) geleistet. Die Edition wird von mehreren kritischen Apparaten begleitet, darunter einer für sinnvolle Lesarten.
5. Der textkritische Prozess stützte sich auf mehrere Softwaretools und trug auch zur Software-Weiterentwicklung bei. Nach der Methode des DFG-Projekts Nyāyabhāṣya wurden zunächst Fotografien von Handschriften vollständig transkribiert. Dann wurden diese Transkriptionsdaten in zwei automatische Kollationssysteme eingespeist. Einerseits bietet der von Stefan Hagel geschriebene Classical Text Editor eine einmalige Kollation von Lesarten, mit der Möglichkeit, Editierentscheidungen iterativ zu speichern und gedruckte Editionsseiten zu setzen, komplett mit zahlreichen kritischen Apparaten. Andererseits konnte Brucheion, geschrieben von Thomas Köntges, Bild- und Textdaten in Echtzeit und bequem im Webbrowser dynamisch koordinieren, was eine zusätzliche interaktive Visualisierung ermöglicht und so eine nützliche zweite Perspektive auf die Rohdaten bietet.

Für das vorliegende Projekt wurden mehrere Funktionen zu Brucheion hinzugefügt, darunter die Sanskrit-Othographie-Normalisierung, eine Transkriptions-Importpipeline (cte2cex) und eine funktionierende Online-Version (auf der Website Heroku) mit Daten für NBhū 104–154.

6. Die begleitende englische Übersetzung ist wortwörtlich, mit klarer Klammerabgrenzung des kontextuell bereitgestellten Materials und mit vollständig grammatischem Englisch sowohl mit als auch ohne Material in Klammern. Zusätzlich bereitgestellte digitale Versionen der Übersetzung (in LaTeX und Markdown) ermutigen die Benutzer, den Inhalt nach Belieben zu manipulieren, einschließlich der Entfernung von eingeklammertem Material. Absätze der Übersetzung entsprechen absichtlich denen der Textausgabe und Abschnittsüberschriften bilden eine analytische Gliederung.

7. Um das Nahlesen (Close Reading) zu vervollständigen, versuchen Anmerkungen in der gesamten Übersetzung, zusammen mit einem Einführungs- und Diskussionsmaterial, einige der schwierigeren philosophischen Einzelheiten zu erklären, die in der Passage NBhū 104–154 zu finden sind. Neben unzähligen kleineren Argumentationsdetails sind dies: divergierende Vorstellungen von Wahrnehmungsfehlern (*khyāti*), insbesondere in Bezug auf die Wahrnehmung vom Unterschied (*bheda*) zwischen Subjekt und Objekt; die Natur der erkenntnistheoretischen Gültigkeit (*prāmāṇya*), insbesondere im Zusammenhang mit inferentiellen Argumenten; und eine implizite Meinungsverschiedenheit über die metatheoretische Verwendung verschiedener Arten von Wahrheit (*satya*). Diese ergänzenden Erläuterungen dienen der Klärung einzelner Punkte und stellen keine vollständige analytische Untersuchung dar.

8. Durch dieses Nahlesen wird auch klar, dass Bhāsarvajñas Behandlung der Kontroverse über den ontologischen Status des Ganzen (*avayavin*) in einer Kombination von Argumenten aus dem früheren Nyāya (v.a. NS, NBh und NV), von Mīmāṃsā (v.a. ŚV) und vom Skeptiker Jayarāśi (TUS) besteht. Bhāsarvajñas Hauptgegner sind eindeutig die Buddhisten Dharmakīrti und Prajñākaragupta, obwohl er auch auf Dignāga, Vasubandhu und ältere buddhistische Argumente zurückgreift.

9. Diese intertextuellen Verhältnisse werden auch im zweiten Teil der Studie bestätigt, der ein System konstruiert, um eine Reihe von mehr und weniger wörtlichen Parallelen innerhalb eines Korpus philosophischer Sanskrittexte automatisch zu erkennen, was eine Art unterstützendes Fernlesen (Distant Reading) ermöglicht. Das konstruierte System demonstriert die Nützlichkeit mehrerer Sprachverarbeitungsmethoden für diesen Zweck und wird nach Open-Source-Prinzipien mit leicht zugänglichen Daten, Code und Weboberfläche geteilt. Nah- und Fernlesungen werden in die vorliegende Studie über NBhū hauptsächlich in Form von Hyperlinks vom Übersetzungsdocument zur Vātāyana-Weboberfläche integriert, wo die Leser farbcodierte Gegenüberstellungen relevanter Textpassagen sehen sowie weitere Dokumentähnlichkeitssuchen durchführen können.

10. Zuvor vorhandene elektronische Textressourcen in diesem Bereich der Sanskrit-Philosophie reichten nicht aus, um eine solche computerlinguistische Forschung durchzuführen, daher wurde ein neu kuratiertes Korpus erstellt, das bereits vorhandene Textressourcen (insbesondere auch mehrere von SARIT, die aufgrund ihrer aufwändige XML-

Kodierung bisher noch nie für solche Zwecke verwendet wurden) mit nach Bedarf neu hergestellten Digitalisierungen (z.B. Vyomaśivas Vyōmavatī) kombiniert. Das Korpus, Pramāṇa NLP genannt, besteht aus etwa 50 Werken, die die Sanskrit-Philosophie überwiegend des ersten Jahrtausends umfassen. Es wird öffentlich auf GitHub gespeichert.

11. Im Zuge der Vorbereitung dieses Korpus war es notwendig, Methoden und Werkzeuge für Sanskrit-Transliteration, Metrumerkennung und Wortsegmentierung zu konsolidieren und zu verbessern. Diese wurden als Python-Library und Webanwendung namens Skrutable zusammengefasst, die leicht online verfügbar ist und im Webbrowser funktioniert.

12. Ausgehend von dem neu kuratierten Korpusmaterial wurde ein neuartiger Intertextualitätserkennungsalgorithmus auf der Grundlage von Topic Modeling, TF-IDF und dem lokalen Smith-Waterman-Alignment entwickelt. Die Topic Modeling erfolgt mit der Software ToPān (von Thomas Köntges) und die qualitative Überprüfung der Ergebnisse mit LDAvis und anderen Tools ist die erste ihrer Art für Sanskrit. Anhand von K=75 Topics werden einzelne Textpassagen (d.h. Dokumente in der Größe kleiner Absätze) in einem niederdimensionalen Vektorraum modelliert und dabei auf vorläufige semantische Ähnlichkeit überprüft. Die genauere Wort-für-Wort-Ähnlichkeit einer begrenzten Anzahl von Dokumenten wird dann mit einer modifizierten Version von TF-IDF-Scores bewertet, wobei Dokumente in einem zweiten Vektorraum modelliert werden, der durch das gemeinsame Vokabular von zwei gegebenen Passagen definiert wird. Schließlich wird eine Kombination aus dem lokalen Smith-Waterman-Alignment (sowohl auf Wort- als auch auf Zeichenebene) und dem globalen CollateX-Alignment auf eine präzieseste Auswahl von Dokumenten angewendet, um ähnliche Phrasen in Passagen zu erkennen und hervorzuheben.

13. Der Zugang zum Korpus und die Interaktion mit dem Intertextualitätserkennungsalgorithmus und seinen Suchergebnissen werden über eine online Weboberfläche namens Vātāyana (Sanskrit: „Fenster“) erleichtert. Verschiedene Benutzereinstellungen ermöglichen die Steuerung von Systemparametern, zahlreiche Visualisierungsfunktionen helfen Benutzern beim Verstehen der zugrunde liegenden Topics und Intertextualitätsergebnisse werden als Ranglisten im DataTables-Format zurückgegeben, was eine einfache Schlüsselwortfilterung und Neusortierung ermöglicht, z.B. nach Komponentenbewertungen.

14. Um dieses System besser in die bestehende Wissenschaft einzubetten, wird seine Intertextualitätserkennungsleistung anhand eines Benchmarks bewertet, der sich aus zuvor festgestellten Parallelen zusammensetzt, nämlich aus Zitaten in Yamakamis (1999) Fußnoten zu NBhū 104–154. Die Leistung wird mit 80% Recall@5 als recht gut bewertet. Das bedeutet, dass die meisten bisher bekannten Fälle von mittellangen Zitaten und sogar Paraphrasen vom System bei aktuellen Einstellungen automatisch unter den Top-5-Treffern gefunden und zurückgegeben werden. Das System liefert auch einen Überschuss von 34% an zusätzlichen Treffern, die nicht im kleinen Benchmark enthalten sind, was sowohl auf das frühe Stadium solcher Bewertungsarbeit im Bereich der Sanskrit-Computerlinguistik als auch darauf hindeutet, dass Vātāyana eine nützliche Rolle bei der Erzielung neuer Entdeckungen spielen kann.

15. Der modulare Aufbau des Intertextualitätserkennungssystems ermöglicht auch die Durchführung solcher Intertextualitätssuchen im Batch-Modus (derzeit nur offline), wodurch Intertextualitätsberichte für ganze Kapitel oder Bücher einfach auf einmal erstellt werden können. Solche Berichte wiederum ermöglichen es, intertextuelle Beziehungen zwischen Werken in sehr großem Maßstab quantitativ zu bewerten sowie Einzelfälle über die Vātāyana-Weboberfläche zu verfolgen.