



International conference on Indian Theories of Meaning and Grammar Novel Perspectives

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Invited talks (in alphabetical order of speakers)

1 Brendan Gillon, McGill University, Montreal, Canada

Points of convergence: Vyākaraṇa and contemporary linguistic theory

Abstract: Where are the points of convergence between contemporary linguistic theory and the Vyākaraṇa, a tradition? One may ask this question from two points of view: (1) one non-historical and (2) one historical. The non-historical question itself may be looked at from two perspectives: (1.1) what insights of Vyākaraṇa might be brought to bear on current problems in linguistic theory? (1.2) what insights of current linguistic theory might be brought to bear on the study of Sanskrit? (2) The historical question looks for similar problems and inquires into how those problems were addressed in their respective traditions. The aim of the paper will give partial answers to these questions.

2 Matthew Kapstein, EPHS, Paris & University of Chicago

Making Sense of Reference: Sa skya Paṇḍita's Treatment of Designation and Designatum in the Works of Dharmakīrti

Abstract: Following the 1892 publication of Gottlob Frege's "Über Sinn und Bedeutung" ("On Sense and Reference"), the distinction, as Frege characterized it, came to be of central importance for twentieth century philosophy of language and for analytic philosophy more generally. The relative neglect of the sense/reference distinction in work on Indian philosophy, therefore, invites the question of whether this reflects the absence or unimportance of the distinction in earlier Indian philosophy and linguistic theory, or whether this has merely been a blind spot in contemporary scholarship in these fields. Two important articles that both first appeared in 1986, by Tom Tillemans and Mark Siderits respectively, argued that the distinction was at least clearly implied in the work of the great Buddhist philosopher Dharmakīrti (ca. 600 C.E.), but the topic seems otherwise to have remained marginal in work on Indian views of language. (McAllister 2020 usefully summarizes the range of Indological scholarship bearing upon the issue.)

In the communication proposed here, based on the synthesis of Dharmakīrti's discussions of abhidhāna-abhideya (designation and designatum) that occupies the fifth chapter of the Pramāṇayuktinidhi (Tib. Tshad ma rigs pa'i gter) by Sa skya Paṇḍita Kun dga' rgyal mtshan (1182-1251), I argue that, while Frege's distinction seems strongly suggested, Frege's realism in fact obscures the true contours of Dharmakīrti's theory of reference as Sa skya Paṇḍita understands it. Sa skya Paṇḍita, the leading Tibetan Sanskritist of his day, was concerned to address the original texts directly and to elaborate his treatment of the issue on the basis of the broad range of relevant passages in Dharmakīrti's works. Though guided generally by his analysis of the topic, I shall also follow his example by turning to the Sanskrit sources themselves.

Primary texts in Sanskrit and Tibetan

Dharmakīrti, Pramāṇavārttika & Svārthānumāna-pariccheda-svarvṛtti.

———. Pramāṇaviniścaya.

Sa skya Paṇḍita Kun dga' rgyal mtshan, Tshad ma rigs pa'i gter.

Other works cited

Frege, Gottlob. 1892. "Über Sinn und Bedeutung." Zeitschrift für Philosophie und philosophische Kritik, vol. 100, pp. 25–50.

McAllister, Patrick. 2020. "Śabdārtha as Sense or Reference." In Alessandro Graheli, ed., The Bloombury Research Handbook of Indian Philosophy of Language. London: Bloomsbury.

Siderits, Mark. 1986. "The sense-reference distinction in Indian philosophy of language." Synthèse 69 (1): 331-355.

Tillemans, T.J.F. 1986. "Identity and Referential Opacity in Tibetan Buddhist apoha Theory," in B. K. Matilal et R.D. Evans (eds.), Buddhist Logic and Epistemology, Studies in the Buddhist Analysis of Inference and Language. Dordrecht: D. Reidel, pp. 207–227.

3 John Lowe, University of Oxford, UK

Revisiting kāraka theory and argument structure

The most important and perhaps sophisticated contribution of the Aṣṭādhyāyī in terms of syntax is kāraka theory. This talk traces the relations between kāraka theory and modern theories of argument structure and argument alternations. It also reassesses the debate over whether Pāṇini assumed any notion akin to the Western ‘subject’. Kiparsky (2009) claims not only that the concepts of subject and object play no role in Pāṇini’s grammar, but that his grammar deals with some phenomena the better for it. In contrast Keidan (2017) argues that the supposed lack of the concept of subject in Pāṇinian grammar has been overstated. I show that the facts are more complex and nuanced than even Keidan assumes, with particular reference to the so-called *karmavadbhāva* construction.

4 John Lowe, University of Oxford, UK,

Indian theories of compounding

The traditional Indian categorization of compounds, in particular in the terms bahuvrīhi, dvandva, etc., has had an important influence on Western theories and categorization of compounds. At the same time, later Indian grammarians explored alternative classifications of compounding and even rejected the meaningfulness of the categories bahuvrīhi etc. This talk explores the importance of Indian theories of compounding, focusing particularly on the under-researched contributions of the later grammarians.

5 Andrew Ollett, University of Chicago, USA

On sentence meaning

What is the meaning of a sentence (*vākyārthaḥ*)? How does it relate to the meanings of the words in that sentence (*padārthaḥ*)? This lecture will organize reflections on sentence meaning in Indian thought into two types: “top-down” theories, such as those adopted by Bhartṛhari and Prabhākara, which insist on the priority of the sentence to the word, and “bottom-up” theories, such as what we find in Śabara and Kumārila, which see sentence meaning essentially as a composite of word meanings. The former group sees the sentence as having a qualitatively different kind of meaning from the word, either “intuition” (*pratibhā*) or a “performable” (*kāryam*). This talk will conclude by comparing these views to recently-proposed theories of meaning outside of Indian philosophy.

6 Andrew Ollett, University of Chicago, USA

On secondary meaning

We commonly distinguish between “primary” and “secondary” senses of a word, but the basis of this distinction was already controversial by the time of Śabara (5th c. CE). Theories of secondary meaning developed in two directions. By far the more influential theory posited “secondary meaning” (*lakṣaṇā*) as a property of words, defined in relation to the word’s “primary meaning” and activated when that primary meaning is found to be impossible. But on an alternative view, where meaning is not a property of words at all but only of complete utterances, it is less useful and perhaps even impossible to distinguish between the “primary” and “secondary” senses of a word. Although these two positions were never in conversation in Indian texts, I will try to offer a critique of the first position from the vantage point of the second.

7 Andrew Ollett, University of Chicago, USA

On implications

When you say something without saying it, what are you actually doing? This question had two major moments: first, in the roughly two centuries between Ānandavardhana (9th c.) and Mahimabhaṭṭa (11th c.), and second, unrelatedly, in the middle of the 20th century, thanks largely to the ideas of Paul Grice. This talk will present Mahima’s theory as an anticipation, with several key differences, of Grice’s theory of implicature. One important legacy of Mahima’s arguments (and of the criticisms of Ānandavardhana more generally) is that they established “saying without saying” as an absolutely pervasive feature of language use, across the literary and non-literary domains. And ironically, they might have rescued Ānandavardhana’s theory of literature by distinguishing run-of-the-mill “implicatures” from literary “resonances.”

Open submissions (in alphabetical order of authors)

8 Jim Benson, John Lowe, Adriana Molina-Muñoz and Yiming Shen, University of Oxford, UK *The meaning of coordination*

In modern semantic theory, the apparently simple word ‘and’ turns out to be highly problematic and controversial; see for example Lang (1984). Even within recent formal semantics, there is a stark divide between those who consider ‘and’ to have a primarily intersective or Boolean meaning, and those who consider it to have a primarily collective or non-Boolean meaning (see Champollion 2016). Among other problems, differences have been observed between coordination of nouns and coordination of other types of words and phrases (the former being harder to subsume under a purely intersective approach). The ingenious but rather extreme complexity of Champollion’s (2016) formal semantics of ‘and’ shows just how far we are from a ‘simple’ understanding of this most basic of words.

As with all linguistic analysis, it is instructive to compare and contrast the insights of different linguistic theories and traditions. The theory of the meaning of *ca* ‘and’ in the ancient Indian grammatical tradition has not been widely investigated, nor compared in detail with modern linguistic approaches. The four meanings of *ca* proposed by Patañjali are well known: *samuccaya*, *anvācāya*, *itaretarayoga* and *samāhāra*. Exactly what these terms mean, however, and precisely where the differences lie, particularly between *samuccaya* and *anvācāya*, and between *samuccaya* and *itaretarayoga*, remains in need of detailed investigation. In fact, these terms were understood and used differently by different scholars within the Indian tradition, but these differences are often overlooked, and/or different viewpoints conflated. Initial work on distinguishing different perspectives on the meaning of *ca* was undertaken by Roodbergen (1974), who points out some important differences between Patañjali, Kaiyaṭa and Nāgeśa. But Roodbergen’s presentation is diffused within his translation and commentary of the relevant passages of the *Mahābhāṣya*, and does not consider all the evidence beyond the *Mahābhāṣya* and its major commentaries.

In this paper, we draw out and detail a range of approaches to the meaning of coordination found within the ancient Indian grammatical tradition. We focus firstly on how Patañjali and later scholars like Kaiyaṭa, Bhaṭṭoji, Kaunḍabhaṭṭa and Nāgeśa individually understood the meaning of *ca*, and we also consider contrasting voices, including the rather different theory of the Kātantra tradition, and the more extensive set of eight meanings of *ca* given in the *Gaṇaratnamahodadhi*. We then draw comparisons with modern understandings of the meaning of ‘and’, and consider how the insights of the ancient Indian tradition might contribute to the modern semantic analysis of this deceptively simple concept.

References:

- Champollion, Lucas (2016). Ten men and women got married today: Noun coordination and the intersective theory of conjunction. *Journal of Semantics* 33: 561–622.
- Lang, Ewald (1984). *The semantics of coordination*. Amsterdam: Benjamins. (Translated by John Pheby.)
- J. A. F. Roodbergen (1974). Patañjali’s Vyākaraṇa-mahābhāṣya: Bahuvrīhidvandvāhnika (P. 2.2.23–2.2.38). Poona: University of Poona. (Introduction by S. D. Joshi. Text, translation and notes by J. A. F. Roodbergen.)

9 Anita Borghero, University of Cagliari, Italy *Semantic Analysis of Sentences with Infinitive Suffix (tumun) for Dependency Parsing in Sanskrit*

Abstract: This research paper presents an in-depth analysis of sanskrit sentences with a focus on the infinitive suffix (*tumun*). The study employs dependency analyses to explore the syntactic structure and semantics of such sentences, including identifying the head-word and dependent words. The study also considers the hierarchical structure of dependencies and utilizes a graphical representation to depict the dependency tree structure.

Sentences with *tumun* suffix in Sanskrit are complex structures that require deeper analysis to understand the relationship between the various components in a sentence. The grammarian Pāṇini has given four aphorisms for adding *tumun* suffix to the verb in different conditions as below:

- 1) 3.3.10 *tumunṅvulau kriyāyām kriyārthāyām*
- 2) 3.3.158 *samānakartṛkeṣu tumun*
- 3) 3.3.167 *kālasamayavelāsu tumun*
- 4) 3.4.65 *śakadhṛṣajñāglāghaṭarabhalabhakramasahārhāstyartheṣu tumun*

The meaning and usage of the *tumun* suffix formed by these aphorisms differ from each other. In the first aphorisms the Infinitive had the force of ‘purpose’. The example is “*bhoktum vrajati*” ‘he goes to eat’ whereas the last one does not starts for purpose as Vāmana Jayāditya in Kāśikā stated “*akriyārthopadārtho’yamārambhaḥ*”. A well-known example is “*bhoktum śaknoti*” ‘He is able to eat’. In such constructions, semantically the verb in the infinitive form is the main verb, and the other verb whose presence provides a condition for the infinitive suffix acts as an auxiliary providing the aspectual information. However, syntactically, the subject agrees with the auxiliary verb. The śabdabodhaḥ (verbal cognition) of these two sentences also differ from each other as bhojanecchādhinecchāviṣayo yānam and bhojananirūpakānukūlatvavatsāmarthyaviṣayakaniścayaḥ respectively. This poses fundamental questions in the design of a parser.

1. Does the subject which shows an agreement with the auxiliary serve as its argument?
2. Should the auxiliary and main verb be treated as two different verbs with their own argument structure or as a single complex predicate?
3. If they are two different verbs, what would be the relation between the auxiliary and the main verb?

We discuss solutions to these problems from the point of view of the design of the parser, seeking answers to the above questions from the Indian theories of verbal cognition. The study also employs a graphical representation of dependency trees which provides a clear and intuitive way to understand the relationships between the various components of the sentence. The study explains how to construct a dependency tree, including identifying the root node, identifying the head-word, and connecting the dependent to their corresponding nodes and satisfying the mutual expectancy of number and gender between nominal and verbal suffixes.

In conclusion, this research paper will provide a comprehensive and systematic way to understand the syntactic structure and semantics of these complex sentences with a focus on *tumun* suffix, and the graphical representation of the dependency tree will make the analysis accessible and easy to understand.

10 Josephine Brill, University of Chicago, USA

What examples and texts can tell us about grammar

Examples are named by Patañjali as a necessary complement to the rules of language. They can be related to the so-called Boasian trilogy: the great 20th-century anthropologist Franz Boas noted that a dictionary and a grammar alone don’t much help one to understand how a language is used. He called for the addition of a third component: texts.

For S. D. Joshi, working 40 years ago, examples given in the canonical commentaries on the *Aṣṭādhyāyī* (A) held important clues about the A’s composition history. Believing that the sections governing *taddhitas* and *samāsas* were composed later than the rest, Joshi set a project for several of his PhD students: Ascertain, for each example, whether or not it is attested in pre-Pāṇinian literature. If not, then the associated rule was likely a later addition to the A. Joshi thought to compute, and compare section to section, the ratio of “early” words to words attested late or not at all. He expected to find evidence for historical layers in the A. That the project was never wrapped up does not detract from its attractive boldness.

Can we refine Joshi’s argument by taking a new view of examples? Pāṇini’s rules vary in their degree of specificity. General rules may enjoin a certain suffix, or give a semantic condition for an operation. At the other end of the spectrum, some rules amount to “X and Y are in fact words;” these words (*nipātanās*) have the simplest possible exemplification relationship with the rules that mention them. Not far behind: rules that enumerate (rather than describe as a class) the bases to which an operation applies, and rules that refer to an external list of bases—that is, the *gaṇapāṭha*.

Joshi did not instruct his students to think about the specificity of the rules they were looking at. But very specific rules have a tighter relationship with their examples; the former exist only for the sake of generating the latter. There’s no danger (in contrast to the broad output coming from more-productive rules) of generating “extra” words. We ought not find unattested words illustrating these rules. Why would a grammarian craft a rule to explain a word that has never been used?

Indeed, what can we actually infer from the existence of an example? Can we assume that our ancient interlocutors, like us, comply with Gricean maxims, at least when engaged in teaching and describing language? One often hears that the A is as short as possible, and that every syllable of the A is non-trivial; assumptions like these undergird the *paribhāṣā* literature with its *jñāpakas*. But another principle adopted by the ancients (and some moderns) is not at all Gricean: that Pāṇini is infallible.

In this paper I will explore whether attestation is more likely for words generated from specific rules. If not, we must allow that our ancient colleagues were guided by other principles. Unattested examples might arise from elements of fun, braggadocio, or poetic expression.

11 Aditya Chaturvedi, Emory University, Atlanta, USA

Bhakti-cising Grammar: Making Kṛṣṇa the Referent of Varṇas, Padas, and Vākyas

Scholarship on Sanskrit grammar and linguistics is, for obvious reasons, mostly focused on Vaiyākaraṇas, Mīmāṃsakas, Naiyāyikas, and Alāṅkāra scholars who propounded various elaborate language and hermeneutic theories. In my paper, I shift this focus to two *bhakti*- Vedāntins, Vallabhācārya (1479-1531) and Puruṣottama (1669-1781). Vallabhācārya founded the Puṣṭimārga Vaiṣṇava *bhakti* tradition and presented his interpretation of Vedānta, which he called the Sākārabrahmavāda or the theory of *brahman* with form. To *bhakti*-cise his version of Vedānta, a process that began with Rāmānuja, Vallabha expanded the Vedāntic canon to include the *Bhāgavata Purāṇa* and placed it at a superlative decisive position even above the *Veda*. To do this, he argued that the *Bhāgavata* expands and clarifies the purport of the *Veda*, which is Kṛṣṇa.

How can Kṛṣṇa be the purport of the *Veda*? To answer this, Vallabha took an ontological/metaphysical route. He argued in his *Tattvārthadīpanibandha* that all linguistic components, including *varṇas*, *padas*, and *vākyas*, both in *vaidika* and *laukika* languages, are Kṛṣṇa and also his referents. Therefore, he argued that Kṛṣṇa is the purport of the *Veda*. Puruṣottama, a descendant of Vallabha, further elaborated on this argument in his commentary *Āvaraṇabhāṅga* on Vallabha’s *Tattvārthadīpanibandha* and his monograph *Prasthānaratnākara*. In these texts, Puruṣottama summarised and refuted different theories on *varṇas*, *padas*, and *vākyas* by some famous scholars from different traditions, including Patañjali (Vyākaraṇa), Gautama (Nyāya), Jaiminī, Kumārila, and Pārthasarathī (Mīmāṃsā), and presented a refined *śāstric* Puṣṭimārgīya perspective on the subject.

In my paper, I discuss Vallabha’s *Tattvārthadīpanibandha* and Puruṣottama’s *Āvaraṇabhāṅga* and *Prasthānaratnākara* to analyse the role linguistic theories of Vyākaraṇa, Nyāya, and Mīmāṃsā played in providing a *śāstric* framework to the Puṣṭimārgīya *bhakti*. I mainly explore the concept of *śabdaśakti* as used by Vallabha and Puruṣottama to, what I call, *bhakti*-cise the grammar. My paper provides: (a) a new perspective on the use of grammar and other related linguistic theories in Sanskrit as an authoritative means of establishing one’s interpretive theory; (b) and an insight into how grammar is transformed through such processes of “adaptive reuse”.

12 Hugo David, École française d'Extrême-Orient – Paris, France
Incompleteness and contextuality in Indian sentence analysis: Bhartṛhari on the semantics of preverbs (upasarga) (around VP 2.180-192)

This presentation will focus on the semantics of preverbs (*upasarga* – A 1.4.59 *upasargāḥ kriyāyoge*) as it is elaborated in the work of Bhartṛhari, the 5th-century grammarian, and on its connection with Bhartṛhari's original views on the sentence, which he considers a unitary, undivided whole, ontologically distinct from its constitutive parts (the so-called *akhaṇḍavākyavāda*). Preverbs have been a topic of intense reflection and debate among grammarians of Sanskrit ever since Kātyāyana's foundational statement, making them "qualifier[s] of an action" (*kriyāviśeṣaka upasargaḥ* - vt. 7 on A 1.3.1 *bhūvādayo dhātavaḥ*). Their thoughts are generally organised around three leading questions: (1) Are preverbs to be considered independent of the root they qualify? (2) Are preverbs expressive of a specific meaning, or is their function something different (in Sanskrit terms: are they 'referring to' a meaning, *vācaka* or simply 'manifesting' it, *dyotaka*)? (3) Do grammatical operations pertaining to preverbs have priority over those pertaining to factors of action (*kāraka*), or is it rather the contrary (the question of *antarāṅgatva* / *bahiraṅgatva*)? These issues, already present in Patañjali's comments on Kātyāyana's *vārttika*, receive their first extensive treatment in the second book – the *Vākyakāṇḍa* or "Section on the Sentence" – of Bhartṛhari's *Vākyapadīya* (2.180-192) and its auto-commentary (*Svavṛtti*). Building on my own study of this section, as well as earlier research by Kahrs and Vergiani on the connected Pāṇinian notion of *karmapravacanīya* (A 1.4.83), I will show how Bhartṛhari's theory of *upasargas* substantially differs from the more familiar ones found, for instance, in the work of later grammarians such as Nāgeśa and Kauṇḍabhaṭṭa. A hypothesis will be advanced as to why this is the case, taking into consideration the role devoted to semantic analysis in Bhartṛhari's general reflection on the sentence, as well as his unique views on the artificiality and context-sensitivity of grammatical analysis as a whole. If time permits, a few hints can be given on the posterity of Bhartṛhari's ideas on *upasargas* beyond the field of Pāṇinian grammar. An interesting case, in this respect, is Mahima Bhaṭṭa, who makes an original use of Bhartṛhari's views on *upasargas* in his foundational work on poetics, the *Vyaktiviveka*, as a support to his own enterprise of rebuilding Sanskrit poetics on an inferential basis.

13 Bogdan Diaconescu, University of Oxford, UK
Udayana's account of intention

The outstanding Hindu logician Udayana (c. 1000) elaborates a comprehensive philosophy of language that covers vast areas of analysis, carrying out a detailed investigation of the units of language and meaning. Udayana enquires into large questions of hermeneutics concerning scriptural authority and the meaning of Vedic statements, and investigates in detail the ordinary, non-Vedic language. This philosophy is elaborated in debate with thinkers of other schools, Brahmanical, Buddhist, and Jain.

In a particularly rich debate over the authorship of the Veda, Udayana argues by means of logical proof for the need for an author against the Mīmāṃsā view that the Veda is a self-revealed, authorless text. This paper presents Udayana's account of intention, focusing on two related lines of argument: one concerning the intended meaning of statements and the other bearing on the relationship between intention, meaning, and action with respect to the Vedic injunctions and the psychological process leading to action. Udayana's treatment of intention in relation to meaning and action will be put in perspective with certain views expressed in contemporary philosophy of language (Grice, Searle, Davidson) and in literary theory on the authorial intention.

14 Marco Ferrante, Österreichische Akademie der Wissenschaften, Wien, Austria.
Words and Universals – Problems and Solutions in a Bhartṛharian Perspective

The purpose of this presentation is to discuss how the grammarian/philosopher Bhartṛhari examines the issue of what a word denotes. At first sight, this author does not seem to distance himself much from the

view of his predecessors in the Vyākaraṇa lineage (especially from Patañjali's discussion of the issue). In grammar's traditional view, a word can either denote a universal quality or form (*ākṛti*) or a particular substance (*dravya*), depending on the linguistic context and the intention of a speaker. Still, within this somewhat fixed framework, Bhartṛhari manages to draw a picture of increasing complexity, exploring crosscutting ideas that involve semantics and metaphysics. The paper will focus on some key passages from the *Jāṭisamuddeśa*, the first chapter of the third book of Bhartṛhari's masterpiece, the *Vākyapadīya*. The section is devoted to defending the view that a word primarily denotes a universal. At the beginning of the chapter, the author introduces a crucial distinction between linguistic and ontic universals. As the talk will show, this taxonomy will allow him to tackle two different philosophical problems: on the one hand, by introducing a word universal, Bhartṛhari will be able to account for the attribute agreement between speech units. On the other, the very same notion of a linguistic universal can be used to assess the ontological question of how to avoid the occurrence of universals of universals and, consequently, a vicious regress. To understand the theory in the *Jāṭisamuddeśa* better, the talk will also consider a passage from the author's commentary on Patañjali's *Mahābhāṣya*. In it, Bhartṛhari explains the process whereby words denoting universal can also indicate a particular substance. The explanation is based on a series of relations of inherence that establish a connection between the word and the external referent.

15 Valentina Ferrero, University of Cagliari, Italy

Optionality in the pronominal inflection: Pāṇini's norm (A 1.1.32) and Vedic praxis

Pāṇini assigns the pronominal inflection to a list of nominal stems: A 1.1.27 *sarvādīni sarvanāmāni* “the word-forms beginning with *sarva-* ‘all’ are designated as *sarvanāman*”. However, in A 1.1.32, he restricts such a declension by stating that these stems are only “marginally” inflected as pronouns, when they occur in the nominative plural (*Jas*). According to the most recent grammatical tradition, the latter *sūtra* specifically refers to all the aphorisms comprehended in section A 1.1.33 – A 1.1.36. Thus, the pronominal status extends to *pūrva-* ‘east or prior’, *para-* ‘subsequent’, *avara-* ‘west or posterior’, *dakṣiṇa-* ‘south or right’, *uttara-* ‘north or inferior, subsequent’, *apara-* ‘west or inferior’, and *adhara-* ‘south or inferior’, when their signification is restricted to that of a spatial limit (*vyavasthā*), and provided that they are not used as proper names (*asaṃjñā*) (A 1.1.34). Moreover, *sva-* ‘own’ is designated as *sarvanāman*, when it does not stand for ‘kinsman’ (*jñāti*) or ‘wealth’ (*dhana*) (A 1.1.35), and *antara-* is a pronoun, when it means ‘outside’ (*bahiryoga*) or ‘an under or lower garment’ (*upasaṃvyāna*) (A 1.1.36).

The idea of “marginality” is based on the renowned interpretation of Pāṇini's term *vibhāṣā* as introducing a “marginal” option, which has been advanced in one of the capital works by Kiparsky, that is, *Pāṇini as a Variationist* (1980). Nevertheless, while discussing *vibhāṣā jasi* (A 1.1.32), Kiparsky endorses a specific reading of these rules already proposed by Bloomfield (1927), who blocks the continuation (*anuvṛtti*) of *vibhāṣā jasi* after A 1.1.33, whereas the tradition continues it up to A 1.1.36. Indeed, Bloomfield notes that *ca* in A 1.1.33 signals the discontinuation of *vibhāṣā jasi* beyond the rule itself. According to this interpretation, optionality is excluded from A 1.1.34-36.

The idea behind the present research is a fresh inquiry into all the instances of the above-mentioned pronouns that can be found in the Vedas, and the main purpose is to try to understand whether Pāṇini creates this section of rules primarily considering their occurrences in the sacred texts, or if the rules might have represented an extra-Vedic usage. First of all, a survey of the Vedic *Samhitās* has been realised, mainly considering *R̥gveda*, *Śaunaka Atharvaveda*, *Sāmaveda*, *Taittirīya* and *Vājasaneyī Yajurveda Samhitā*. In addition, the relevant commentaries have been carefully read, in order to maintain a close eye to the later technical application of Pāṇini's rules to these works. It is noteworthy that the identification of these pronominal occurrences was based on the several volumes of *A Vedic Word Concordance* by Viśva Bandhu Śāstrī (1897-1973) and on the well-known Digital Corpora of Sanskrit. Furthermore, all these instances have been analysed in their context with an extensive reading of the Vedic passages aimed at verifying what they actually denote and how far they comply with Pāṇini's rules.

16 Sayanti Gorai, Department of Sanskrit, Cooch Behar Panchanan Barma University, India.
Reasons behind Nāgeśa's rejection of lakṣaṇā and refutation of Naiyāyikas' view: A Justification

The function of the word, denoting a referent different from its natural and primary, but somehow related to it, is called *lakṣaṇā*. *Lakṣaṇā*, a part of *śabdaśakti*, has an important role in Indian theories of lexical and contextual meaning as adopted by all rhetoricians and Naiyāyikas'. Nāgeśabhaṭṭa, a modern grammarian, rejects *lakṣaṇā* in his *Paramalaghumañūṣā*. He states: If there is *tātparya*, then all words would refer to a referent. It is an error of the sublime to admit two *vṛttis* and a mistake to conceive of a vile *vṛtti*. ("sati tātparye sarve sarvārthavācākā' iti bhāṣyāt lakṣaṇāyā abhāvāt. Vṛttidvaya vacchedakadvayakalpane gauravājjghanyavṛttikalpanāyā anyāyatvācca.")¹

According to Nāgeśa, it is pointless to accept an additional *vṛtti* to understand the inner meaning of certain words where the meaning is known only through *tātparya-vṛtti*.

Generally, a word is used to refer to a referent other than its normal referent. This type of metaphorical use is common in all languages. In that case, we cannot recognize the metaphorical meaning of the word without the help of *lakṣaṇā*. A well-known example of *lakṣaṇā* is *gaṅgāyām ghoṣaḥ* (the village on the banks of the Ganges). The original meaning of the word *gaṅgāyām* here is 'in the river Ganga', which does not suit the context, since the village cannot actually be on the stream, so the original meaning of the word *gaṅgā* is taken to be *gaṅgātata* (on the bank of the Ganges). This secondary meaning of the word is not understood directly from the word itself, but only indirectly through its primary and natural meaning. As soon as we hear a word, the usual meaning comes to our mind and when it is found to be inconsistent with the context, we resort to *lakṣaṇā* and find that it bears a link with the usual meaning and thereby the incongruity is eliminated. Thus, *lakṣaṇā* plays an important role. In the *Paramalaghumañūṣā*, while discussing the *śabdaśakti*, Nāgeśa rejects *lakṣaṇā* and also refutes the Naiyāyikas' view of the establishment of *lakṣaṇā* and points out that there are two types of *śakti*: *prasiddhā śakti* and *aprasiddhā śakti* and what is easily understood by all is *prasiddhā śakti*, what is understood by the heart is *aprasiddhā śakti*.

Now, here comes the question: How did Nāgeśa derive the meaning *gaṅgātata* from *gaṅgā*? If acknowledging *lakṣaṇā* is an additional *vṛtti*, then why is rejecting *lakṣaṇā* not an additional *vṛtti* too?

This research article deals with the aforesaid questions and I would also attempt to answer whether Nāgeśa's refutation is acceptable or not from a Naiyāyikas' perspective.

17 Alessandro Graheli, Department of Historical Studies, University of Toronto, Mississauga, Canada
Jayanta and Prabhākara on Compositionality

Bhaṭṭa Jayanta wrote the *Nyāyamañjarī* (NM) a treatise on Nyāya epistemology, in ninth-century Kashmir. At that time scholarship was founded on the *trivium* of Grammar (*Vyākaraṇa*), Hermeneutics (*Mīmāṃsā*), and Epistemology/Dialectics/Logic (*Nyāya*). It is therefore appropriate to read Jayanta in the historical context of the grammatical, hermeneutical, and epistemological theories available to him.

After refuting Bhartṛhari's theory of the indivisible sentence, in the sixth book of the NM Jayanta engages in a debate with the Bhāṭṭa and Prābhākara voices who respectively uphold the "correlation of denoted meanings" (*abhihitānvaya*, AANV) and the "denotation of correlated words" (*anvitābhidhāna*, AABh). Eventually, he argues in favor of his own theory of intentionality (*tātparya*).

Nyāya authors are generally associated to AANV and Jayanta is no exception. After critically editing, translating and scrutinizing this section of the NM, however, I rather argue that Jayanta's own view is closer to and directly influenced by the AABh, thus, after outlining the main weaknesses of the AANV, my paper is focusing on his take of the Prābhākara stance.

Jayanta's is one of the earliest, most thorough and most influential analyses on the two *Mīmāṃsā* theories. Notably, as other Kashmiri authors of his time, Jayanta did not know Śālikanātha, the great Prābhākara commentator. Therefore, his source must have been either the *Bṛhatī* itself or some lost

¹ *Paramalaghumañūṣā, śabdaśakti* - Nāgeśa

Prābhākara commentary. A further aim, here, is to underline points of departure and convergence between Jayanta and Śālikanātha that will yield a clearer picture of the history of the AABh theory.

Jayanta's earnest presentation of the AABh is suitable for its evaluation in terms of present-day pragmatics. More in detail, I intend to read Jayanta's elucidation in the light of François Recanati's principle of availability: the main principle is that only "what is said" (*abhidhāna*) is consciously accessible, while the sub-sentential elements, their relations, and the compositional principles are sub-conscious factors in communication. Prabhākara's stance is well represented in Recanati's *Literal Meaning* (Cambridge 2004, p. 17): "what is said is the conscious output of linguistic-cum-pragmatic processing", where primary pragmatic processes are involved.

In this connection, as an epistemologist Jayanta would subscribe to the notion that "a truth-conditional interpretation is pragmatic to a large extent" where "primary pragmatic processes include not only saturation, but also optional processes such as free enrichment" (Recanati 2004, p. 21). In these terms, the truth-conditional output (*pramā*) is based on the proper application of the primary semantic, syntactic and pragmatic processes.

Since Jayanta's project is limited to the foundationalist epistemology of Nyāya, he is loudly silent on secondary pragmatic processes behind implicatures. He knows that their discussion would require a digression into the realm of the very discipline of Poetics (*Alaṃkāraśāstra*) that he famously deprecated in a curt dismissal of the *dhvani* theory, namely "This mighty power of words averts even that *dhvani*, resorted to by a self-fancied scholar" (NM, Mysore edition, I 129). Even then, Jayanta's NM directly influenced later versions of AANV and AABh applied to figurative language that are found in the works of Abhinavagupta, Bhoja and others, and that will be better appreciated in the framework of Jayanta's terms.

18 Peter Edwin Hook, Universities of Michigan and Virginia, USA

An āporīa in the अष्टाध्यायी?

The proposed paper examines the aporetic consequences of अष्टाध्यायी 1.4.33 रुच्यर्थानां प्रीयमाणः (सम्प्रदानासंज्ञम् भवति) when invoked together with A. 3.4.21-28 समानकर्तृकयोः पूर्वकाले. By A. 1.4.33 the source of a sensation of liking रुच् is designated as कर्तृ 'agent'. By A. 3.4.21 in utterances like (i) the nominal अन्यत् 'another' must be taken as the कर्तृ of श्रु, an obvious दोष 'flaw'.

- (i) *śrutvā tv idam upākhyānam ... (tasmai) anyan na roçate* (Vyas, MBh.1.2.236)
hear-GER however this story (him.DAT) another NEG pleases
'(Someone) having heard this story, another (story) does not please him = he doesn't like any other.'

Such दोष's are often overlooked even by वैयाकरण's especially when the समानार्थ nominal occurs in the genitive as in (ii):

- (ii) *बलवतो नरान् धावतो द्रष्ट्वा अमुष्याः मनसि भयं जायते*
strong.MPL men.ACC running.MPL see.GER her mind.LOC fear.NOM arises
'Seeing buff men running, fear arises in her mind.' (Deshpande 2003: 189).

It has been suggested that such flawed constructions should be dealt with by simply invoking the notion of "sloppy identity" or dismissing them as unimportant solecisms (Hock 2015). Admitting that the *āporīa* as in (ii) may be rare in earlier varieties of Sanskrit they are now ubiquitous in the NIA languages descended from Sanskrit:

- (iii) सुगंधा के चेहरे पर मुस्कान देख कर उसका डर कुछ कम हो गया था ।
'Having seen the smile on Sugandha's face, his fear subsided a bit.'

In my paper I will suggest what modifications to the अष्टाध्यायी would be required in order to account for these 'anomalies' as being regular acceptable constructions in OIA. (i) may require a second sutra: रुच्यर्थानां च समानार्थसम्प्रदाने 'And (it also applies) if Recipients (of a verb) meaning "to please" (are) co-referential (with the agent of the conjoined verb) In this case the modification may be as simple as adding a sutra following 3.4.21: तयोः स्वामिनोरपि '(The preceding sutra) also (applies to) possessors (of agents).' To accommodate combinations like (i)'s may require a second sutra: रुच्यर्थानां च समानार्थसम्प्रदाने 'And (it also applies) if Recipients (of a verb) meaning "to please" (are) co-referential (with the agent of the conjoined verb).' These modifications would still to capture anomalies such as that in (iv):

- (iv) *dvija siprānadīm gatvā tubhyam aham mantram dāsyāmi*
 'O brahmin, I will give a mantra to you, (you) having gone to the river Sīprānadī.'
 (Vetalapañcaviṁśati, ed. Emeneau 92.20-21)

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19 Jan Houben, EPHE, Paris

Linguistic terminology in Indian language sciences : Bhartrhari minus Saussure

In the grammatical tradition of India, the grammarian-philosopher Bhartrhari (5th-6th century CE) is the first author of whom we have really extensive and systematic reflections on language. It is generally accepted that he is (1) the author of a sub-commentary on Patañjali's Vyākaraṇa-Mahābhāṣya, which is in turn a commentary on Pāṇini's grammar and on Kātyāyana's Vārttikas; and moreover (2) the author of an independent work, the Vākyapadīya, which may be considered a topical and rearranged sub-commentary on this same Mahābhāṣya of Patañjali.

Bhartrhari is best known as the one who had formulated and defended the unity and the primordially of the sentence – which implies a derivative status for the word. Bhartrhari also deals in extenso with a large number of grammatical and theoretical problems of the analyzed word of the sentence. Bhartrhari's theoretical formulations have been very important in Indian works on poetics, but Bhartrhari on his part does not explicitly discuss topics such as metaphores and polysemy in Indian poetry (*kāvya*), where these are crucial throughout. Authoritative for Bhartrhari and for grammarians and the starting point for grammatical analyses are common language and the language of scientific Sanskrit such as that found in Pāṇini's grammatical rules.

Before we can study the linguistic terminology used by Bhartrhari, some remarks are necessary on Bhartrhari and his work, especially his *magnum opus*, the Vākyapadīya, and on the grammatical tradition in which it is situated. The grammarian-philosopher Bhartrhari belongs to the grammatical tradition of Pāṇini, who himself has been the great master of Indian grammar since the 4th century BC. An important part of Bhartrhari's background was therefore the Pāṇinean tradition of his day. The gap between Pāṇini and Bhartrhari has often been pointed out. Pāṇini would have been a pure scientist, and Bhartrhari rather a mystic. One can, indeed, distinguish important parallels between the grammar of Pāṇini and the most modern linguistic theories of generative grammar, which does not exclude that there are also parallels between Pāṇini and other modern theories. Under the influence

of parallels with generative grammar, the perception of the purpose and context of the grammar has been relatively limited and the ability of the grammar to have the undivided sentence as a starting point for a cycle of consultation has been missed. From this last point of view, the theoretical gap between Pāṇini and Bhartṛhari is considerably reduced. Indeed, it turns out that Bhartṛhari's theory which stresses the importance of the undivided sentence as a starting point is not only the oldest, it is also a quite adequate theorization of Pāṇini's grammar.

Now, the linguistic concepts used by Bhartṛhari in his analyses, including his reflections on Pāṇini's grammatical rules, are often binary, as I have shown on several occasions (Houben 1995, Houben 1997). These concepts suggest, in fact, a binary linguistic model comparable, but not identical, to that developed by F. de Saussure in the *Cours de Linguistique Générale*. Parallelism goes a long way, but not all the way. Where the parallelism ends there is, of course, a great risk of misunderstanding. In the interpretation of the Vākyapadiya, it is therefore necessary both to be aware of these parallelism AND to unlearn some of our common Saussurean reflexes in thinking about language. I would like to take here as a starting point the concepts attested in the Vākyapadiya by taking up and developing a scheme I gave previously (Houben 1997).

On the identification of the central units of the language we find some famous statements in the *Cours de Linguistique Générale* (1916: 146-149):

"Proper delineation requires that the divisions established in the acoustic chain ... correspond to those in the chain of concepts"

"As soon as we want to assimilate concrete units to words, we find ourselves faced with a dilemma..."

"A fairly widespread theory claims that the only concrete units are sentences: we speak only through sentences, and afterwards we extract words from them. "

However: "between the sentences ... it is the diversity that dominates, and as soon as we look for what connects them all through this diversity, we find, without having looked for it, the word with its grammatical characters, and we fall back into the same difficulties." Ferdinand de Saussure's well-known model therefore resembles the model underlying Bhartṛhari's speech, though with some important differences:

- de Saussure makes a choice, not entirely from the heart, for the 'word' as the basic unit for linguistics;
- then he has a tendency to forget the prior importance of the sentence;
- the binary unit 'word – meaning' or 'signifier – signified' at the word level is of great importance for de Saussure: it is THE linguistic sign.

To be able to study Bhartṛhari well, it is therefore not only necessary to study his work minutely, it is also necessary to be aware of the concepts which we are accustomed to superimposing on the language, the Saussurean concepts which we have entirely absorbed and are no more aware of.

20 Bhakti Jadhav & Malhar A. Kulkarni, IIT Bombay 400076, India *Camatkṛti in the light of the theory of the Vaiyākaraṇas*

Alaṅkāras, which can be loosely translated as 'figures of speech' in English, are an integral part of any language. In the classical Indian theories of meaning, these *Alaṅkāras* are generally classified into two major groups: *Śabdālaṅkāra* and *Arthālaṅkāra*. The former refers to the word-level beauty while the latter deals with the poetic beauty at the level of concepts and meaning. Later *alaṅkāraśāstrins* regard *camatkṛti* to be the central concept of *Alaṅkāra*. However, in traditional Sanskrit sources and secondary Sanskrit literature, there are very few explanations of what form *camatkṛti* has and how its verbal cognition takes place. Recent works, including the 1990 edition of the monumental treatise *Dhvanyāloka* (edited and commented upon by Ingalls et al.), are not an exception.]

The term *Śābdabodha*, which can be translated as verbal cognition, refers to the comprehension of meaning that results from hearing words. Using the *śābdabodha* theory, the paper attempts to define *camatkṛti*. For this purpose, we will employ the Vyākaraṇa method of performing *śābdabodha*, which is

characterized by *dhātvarthamukhyaviśeṣyatva*. This *śābdabodha* will primarily consist of words denoting Upamā *alaṅkāra* and producing *camatkṛti*. *Śābdasūtra*, an unpublished Sanskrit text, will also serve as a reference during this process.

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Theory of Vaiyākaraṇās in grasping the cause-and-effect relationship in the śābdabodha of abheda

Abstract - According to Grammarians though the sentence meaning is indivisible as a final meaning, still, for the sake of sentence analysis, it can be shown to have been composed of components called padārthās. Here, we mainly deal with sakhaṇḍapakṣa, which is better and more economical from the computational perspective. We will primarily follow Grammarian’s theory of verbal cognition which holds the idea that an action denoted by a verbal root is the principle qualificand or mukhya viśeṣya in a sentence meaning (vākyārtha).

The sentence meaning (vākyārtha) is a combination of the word meanings and their mutual relation. Patañjali defines the sentence meaning as - what is additional is the sentence meaning. Consequently, the sentence meaning is additional, is over and above the word meanings, and is relational. This relation is of two types bheda (difference) and abheda (non-difference). This paper will focus on the latter following some expressions representing modifier-modified relations with each other. This work mainly follows the abhihitānvayavāda theory, which sees that the sentence meaning is the interconnection of meanings conveyed by individual words. This theory insists the views of the sentence and its meaning as “A sentence is the collection of words” (saṃghāto vākyam) and “The meaning of a sentence is the mutual association of the word-meanings” (saṃsargo vākyārthaḥ).

This attempt tries to show the cases where the *abheda* (non-difference) takes place while making the sentence meaning. This study can be impactful towards making annotations for tags we follow to write the verbal cognition of a sentence to understand better the relations that give rise to verbal cognition.

Keywords - Verbal cognition, Vākya, Sentence, saṃsarga, vākyārtha, abheda, non-difference.

22 Andrey Klebanov, Department of South Asian, Tibetan and Buddhist Studies, University of Vienna

When pun is intended. Semantic processing of polysemous expressions according to Appayya Dikṣita.

The issue of semantic processing of polysemous words has been treated in many discourses along a wide range of Indian systems of knowledge (*śāstras*). A common line of enquiry focuses on the analysis of mental processes that allow to resolve the ambiguity and process the meaning of statements that -- on account of various types of polysemy -- could be understood in different ways, that is, misunderstood. One prominent solution was laid out in the second chapter of the *Vākyapadīya* by Bhartṛhari (ca. fifth cent.), who enumerated several semantic factors that restrict the operation of the denotative power and allow for processing the meaning of polysemous statements in an unambiguous way. However, the Indian tradition of poetics (*alaṅkāraśāstra*) adopted a different way of looking at the same problem when examining poetic statements when a pun is intended, that is, when two or more meanings are purposefully encoded in a single polysemous expression. This intentional polysemy forms the basis of a figure of speech called *śleṣa*, “pun” or “double entendre” (lit. “embrace”). A standard theory was proposed by an influential theoretician Mammaṭa (ca. 11th cent.) in his canonical *Kāvya prakāśa*. Resorting to Bhartṛhari’s list of restrictive semantic factors, Mammaṭa asserted that while some puns rely merely on the direct denotative power (i.e., literal meaning) of its constituents, we need to recourse to a specific semantic process called *vyañjanā*,

“implicature” or “suggestion,” in order to process the meaning of another large group of puns. Mammaṭa’s specific analysis of the process at hand remained unchallenged until as late as the 16th century, when another renowned scholar, Appayya Dikṣita, proposed an alternative theory by partly reinterpreting the significance of the authoritative verses from the *Vākyapadīya*. In my talk, I will briefly summarise the relevant points in Mammaṭa’s treatment of the *śleṣālaṅkāra* and focus on Appayya Dikṣita’s novel proposition that it is possible to rely on the direct denotative power of words alone in order to understand statements when a pun is intended.

- 23 **Andrey Klevanov, Department of South Asian, Tibetan and Buddhist Studies, University of Vienna**
On the meaning of meaningless words. The linguistic status of preverbs (upasargas) according to the Upasarganipātadyotakatvavācakatvavicāra of Harikṛṣṇa Paṇḍita.

While *naiyāyikas* and *vaiyākaraṇas* share some common presuppositions and borrow analytical techniques and categories from each other’s technical repertoire, they disagree on almost every aspect of their syntactic and semantic analysis of verbal expressions. Still, at times, they arrive at common conclusions. One such case is the ascertainment of both schools that a particular class of Sanskrit indeclinables, namely, the *upasargas*, “preverbs,” do not bear any literal meaning on their own and instead are employed in speech only in order to bring out a particular meaning of the verbal roots they are attached to. In classical texts of the *vyākaraṇa* tradition, the status of *upasargas* has been discussed abundantly with a view to the technical derivational process in several instances in the *Mahābhāṣya* and treated in slightly broader terms in the *Vākyapadīya*. However, as a point of no disagreement, *upasargas* received much less attention in later polemical texts of the *vyākaraṇa* school than, for example, another group of indeclinables, the *nipātas*, “particles.” This being the case, in my talk, I will summarize the analysis of the semantic and syntactic status of *upasargas* presented in a short, hitherto unpublished text by someone Harikṛṣṇa Paṇḍita with a rather telling title, the *Upasarganipātadyotakatvavācakatvavicāra*. While essentially following the line of reasoning of the *Upasargavāda* section in Gaṅgeśa’s *Tattvacintāmani*, Harikṛṣṇa Paṇḍita gathers a large number of further arguments and discussions scattered in various commentarial works of the *navyanāyāya* tradition, and in this way, presents a comprehensive overview of different theories pertaining to the status of *upasargas* known in early modern India “at the eve of colonialism.”

- 24 **Amruta Arvind Malvade (University of Hyderabad), Anagha Pradeep (IIIT Hyderabad) & Amba Kulkarni, (University of Hyderabad)**
Sanskrit WSD : Clues from Bharṭṛhari’s Kārikā (Vākyapadīyam II 315-316) and Computational Challenges

Abstract: In natural language we come across various types of ambiguities beginning with morphological extending up to pragmatic. As a result of these ambiguities, tasks related to Natural Language Processing (NLP) such as translation, text summarization, and paraphrasing become quite challenging. Sanskrit is no exception to this. In this paper we aim to focus on lexical disambiguation which is otherwise well known as Word Sense Disambiguation (WSD). Attributing the right sense of a polysemous or a homonymous word, in a given context is known as WSD. Among the scholars of the Indian schools of thought, a fifth century grammarian named *Bharṭṛhari*, in his grammatical treatise *Vākyapadīyam*, lists fourteen factors that act as clues in disambiguating the sense of an ambiguous word. The *kārikā* is as follows -

samsargo viprayogaśca sāhacaryam virodhitā |
arthah prakaraṇam liṅgam śabdasyānyasya sannidhiḥ ||
sāmarthyam aucitī deśah kalaḥ vyaktissvarādayah |
śabdārthasyānavacchede viśeṣa smṛtihetavaḥ || (Vākyapadīyam II 315-316)

Some of these clues are contextual and others are extra-linguistic. Contextual clues may be further divided into sentential and discourse related. This paper attempts to elaborately examine various factors mentioned in the above *kārikā* for word sense disambiguation in Sanskrit, from the computational viewpoint. We discuss various lexical, and grammatical resources needed for implementing them. We also observe that some of the factors for disambiguation are beyond the scope of current day computation.

25 Abhijit Mandal, Department of Sanskrit, Cooch Behar Panchanan Barma University, India
The Additional Causality Factor of Yogyatā in the Indian Theory of Meaning: A Debate Between Vaiyākaraṇas' and Naiyāyikas'

How does a listener understand the meaning of the words of a speaker? What are the ways to make out these words? Indian philosophers have produced a number of strategies through which they reach such conclusions. Any knowledge is legitimised through a specific form of valid Pramāṇa or any justifiable proof. According to the Nyāya philosophy, the four Pramāṇas are *Pratyakṣa* or Perception, *Anumāna* or Inference, *Upamāna* or Comparison and *Śabda* or Verbal Knowledge. These are the four different sources of valid knowledge substantiated by most of the Indian Philosophers. Any knowledge generated by any *śabda* or word in the form of a sentence is called *śābdabodha* (cognition of sentence meaning). It is like a result or aftermath and must have some necessary antecedent existing to produce the result. Philosophers have admitted the causality relation (*kārya-kāraṇa-sambandha*) in every action. Without a cause, there is no action. Causes are generally two types - Primary Cause and Secondary Cause. Primary or elementary causes are essential and secondary or minor causes may be or may not be present for all actions. Both are necessary for the completion of every action. Verbal Cognition also has three primary causes (*Padajñānam* - knowledge of word, *Padārthajñānam* - meaning of the word, *Pada-padārth-sambandhajñānam* - knowledge of the relation between word and word-meaning) and four secondary causes (*Ākāṅkṣā* - Syntactic Expectancy, *Yogyatā* - Logical Consistency, *Āsatti* - Phonetic Contiguity and *Tātparyā*) as per different schools of philosophy.

In the causality factor, there are two types of causalities (*kāraṇatā*) - *Sarūpasati* and *Jñātasati*. E.g. A fire is the cause of a burn, here the nature of casualty is *Sarūpasati*, because, for burning something the presence of fire is essential, not the knowledge of fire. There is the same function in verbal cognition, we should find out the nature of causality (*kāraṇatā*).

According to the Navya-naiyāyikas', knowledge of *yogyatā* has no causality factor in verbal cognition. (*navyāstu yogyatāyā jñānam na śābdajñāne kāraṇam*) They did not accept it as an additional condition for verbal cognition. Whereas Nāgeśa has admitted the knowledge of *yogyatā* must have a causality factor in verbal cognition.

The proposed research article deals with only *yogyatā* (Logical Consistency), a secondary or additional cause of verbal cognition. Has the *yogyatā* causality factor as a *Sarūpasati* or *Jñātasati*? This paper would attempt to all these questions and also discuss in a detailed manner the differences between Vaiyākaraṇas' and Naiyāyikas' opinions and logically disclose which one is more acceptable.

26 Davide Mocci, IUSS Pavia & Tiziana Pontillo, University of Cagliari
The active-passive alternation: Pāṇini vis-à-vis Generative Grammar

When case-marking changes, the interpretation of the related sentences also changes (cf. *devadatto yajñadattaṃ hanti* vs. *yajñadatto devadattaṃ hanti*). The active-passive alternation poses a puzzle in this connection: *vāja-* is accusative-marked in (1) and nominative-marked in (2), but the interpretation of (1)-(2) is substantially the same.

- (1) *tvam* [_{VP} *vājam* *jayasi*].
 'you win the award'.
 (2) *vājas* *tvayā* *jīyate*.
 'The award is won by you'.

The standard solution to this puzzle was offered by that version of generative grammar dubbed as “Government and Binding” (GB). In this study we unveil a crucial difference opposing that solution to Pāṇini’s.

GB (Chomsky 1981; Burzio 1986) models the semantic relations between a given set of referents and the verbal event via theta-roles. E.g., the lexeme TVAD bears the agent theta-role w.r.t. the winning event in (1)-(2). Likewise, the lexeme VĀJA bears the patient theta-role w.r.t. the winning event in (1)-(2). Moreover, GB takes (2) as deriving from (3), where the subject position is empty and VĀJA is the complement of *jīyate* (VP standing for “verb phrase”).

(3) _ [_{VP} VĀJA jīyate].

The fact that VĀJA is the complement of both *jayasi* ((1)) and *jīyate* ((3)) ensures, in GB, that VĀJA is assigned the same theta-role (patient) in (1) and (3). Crucially, a general property of passive verbs is that they do not assign a theta-role to the subject position (Burzio 1986:13): this permits VĀJA to be linked to the subject position in (3), resulting in the assignment of nominative case to VĀJA, which thus surfaces as *vājah*; after the adjunction of the passive agent *tvayā* to VP, (3) is transformed into (2). Thus, GB solves the puzzle posed by the active-passive alternation in derivational terms.

Pāṇini assumes the *anabhihite* constraint (*Aṣṭādhyāyī* 2.3.1), whereby no *kāraka*/theta-role may be signified by more than one linguistic unit. Since the active verbal ending *-si* already signifies the *karṭṛ*/agent of the winning event (i.e., a generic “winner”) in (1) (*Aṣṭādhyāyī* 3.4.69), *tvam* cannot signify the *karṭṛ*/agent (*Aṣṭādhyāyī* 2.3.46; Mocci&Pontillo 2020). However, we deduce from *Aṣṭādhyāyī* 1.4.107 that the *karṭṛ*/agent and the referent of *tvam* are one and the same entity in (1). The accusative-marked *vājam* instead signifies the *karman*/patient of the winning event (i.e., a generic “thing being won”) in (2) via *Aṣṭādhyāyī* 2.3.2. Crucially, in (2) the passive verbal ending *-te* signifies not the *karṭṛ*/agent, but rather the *karman*/patient. The *anabhihite* constraint then prevents the nominative-marked *vājah* from signifying the *karman*/patient. The *karṭṛ*/agent is instead signified by *tvayā* in (2). Thus, Pāṇini solves the puzzle posed by the active-passive alternation by capitalizing on the *anabhihite* constraint.

The crucial difference between GB and Pāṇini is that the notions of agent and patient are signified by the nominative-marked word in GB, but by the verbal ending in Pāṇini. The non-trivial consequences of this difference will be carefully investigated.

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27 Monika Nowakowska, Faculty of Oriental Studies, University of Warsaw, Poland *Types and tokens as anticipated in Pūrvamīmāṃsakas’ varṇavāda*

The issue of what is speech and what is a meaningful linguistic unit became the subject of a debate in the early Mīmāṃsā most probably in response to the questions posed by the grammatical tradition. The terms discussants usually used were *śabda* and *varṇa*. Both of them, firstly, could either be conceptualized as some ideal, unchanging entity, or a singular, particular instantiation of a linguistic expression (a word or a phoneme respectively), its articulation. *Śabdas*, or *varṇas*, were considered by Pūrvamīmāṃsakas to be permanent, i.e. invariable, fixed (*nitya*), and as such to be bound by an equally fixed and invariable semantic relation with their fixed and invariable meaning. The distinction between the idealized speech unit and its vocalization was referred to and emphatically stressed by Pūrvamīmāṃsā authors, though often not admitted by their opponents.

The arguments raised by Pūrvamīmāṃsakas in their discussions quite uncannily resemble some of the problems of the theory of types and tokens analysed by Western philosophy and linguistics, with notable

presence of such questions as, starting from the fundamental one, following the Grammarians, what is a word, and then what is a phoneme, what have tokens of a word or a phoneme in common, “how we know about words” or phonemes, “what the relation is between words and their tokens”, etc. (see L. Wetzel, *Types and Tokens*, Stanford Encyclopedia of Philosophy), up to an analysis of the problem of different phonetic realizations of one and the same word. In this paper, I will try to summarize Pūrvamīmāṃsakas’ *varṇavāda* from the perspective of the type and token distinction.

28 **Sanjeev Panchal, Assistant Director (Research), IGNC, New Delhi**

Aṣṭādhyāyī 2.4.2-2.4.17: how the notion of singularity is conveyed by coordinated nouns according to Pāṇini.

Even though the abundance of rules devoted to the so-called *samāhāras*, (i.e., collective compounds) is not mirrored by the Vedic textual occurrences, one of the main interests of the *Aṣṭādhyāyī* with respect to the domain of *dvandvas*, i.e., copulative compounds, is that of allowing or prohibiting the formation of this specific type of compound. This fact, which bears witness to the productivity of *samāhāras* in the Pāṇinian age, results in the technical attempt to restrict their usage to the desired field of application.

Several questions about the Pāṇinian notion of this linguistic formations arise due to some peculiar *Aṣṭādhyāyī* rules teaching combinations of words denoting, e.g.:

- parts of a living being, parts of a musical group, parts of an army (A 2.4.2), branches of Vedic schools (A 2.4.3).
- rivers or places characterised by different gender (A 2.4.7).
- small creatures (A 2.4.8).
- different items between which there is everlasting enmity (A 2.4.9).
- non-expelled *śudras* (A 2.4.10).
- different items which are not antonyms (A 2.4.13).
- different items provided that the final compound denotes a proximate quantity of an *adhikaraṇa* (A 2.4.16).

As such, a special focus will be devoted to the treatment of the individuality of the single constituents, which seems to be perceived by Pāṇini as less important than their belonging to the same, wider unitary group: indeed, this type of compound is morphologically characterized by the combination of singular number and neuter gender. The general scope of the present paper, which is the result of a main research about *dvandva* compounds, is that of deepening the comprehension and the analysis of the *samāhāras* as conceived by the *Aṣṭādhyāyī* by means of a linguistic and philological approach to this grammar, with a look at modern theories of copulative compound analysis.

29 **Akane Saito, Österreichische Akademie der Wissenschaften, Wien, Austria**

The concept of the sphoṭa in Maṇḍana Mīśra, the Vivaraṇakāra, and Bhaṭṭa Jayanta

Like many Sanskrit technical terms, the concept of the *sphoṭa* has changed constantly over the long history of Indian grammar and linguistic philosophy. In Bhaṭṭa Jayanta’s *Nyāyamañjarī*, we see that he achieved a major alteration to its concept. But perhaps for him to appear in history, is a prerequisite that two philosophers have each had important discussions about the *sphoṭa*: Maṇḍana Mīśra, who discussed it in his *Sphoṭasiddhi*, and the author of the *Vivaraṇa*, a commentary on the *Yogasūtra* and its *Bhāṣya*, who has been traditionally ascribed to Śaṅkara. The arguments of the two authors are striking in their similarities in some respects and their strong uniqueness in others. After Jayanta and other prominent Kashmiri grammarians of the 10th and 11th centuries, discussions on the *sphoṭa* have become, so to speak, clichéd and lost their unique diversity due to the extent of their influence. It originated, in a sense, with Kumārila — he brilliantly developed a formula to attack the *sphoṭa*, which has been in use ever since. However, in the immediate

reactions/responses of Maṇḍana and the Vivaraṇakāra (the latter might be chronologically earlier) to Kumāriḷa, we find a different approach to defending the *sphoṭa*, which inevitably represents how they understand phonemes, words, sentences, and language.

In this presentation, I shall illustrate how the theory of *sphoṭa* is discussed by Maṇḍana and the Vivaraṇakāra, focusing on the differences in their strategies and their understanding of Bhartṛhari, and show the path prepared for the later generation of Jayanta's elaborate arguments.

30 Yiming Shen, Oriental Institute, University of Oxford, UK.

The Anvayakalikā on yattatsaṃbandha: new insights on the relative pronouns from a hitherto unpublished Sanskrit syntactic treatise

The syntax and semantics of the relative pronouns are vast topics in modern linguistics. Sanskrit, in particular, presents so-called correlatives, with the word *yad* being the prototypical relative pronoun and *tad* the prototypical correlative pronoun. There exist several studies of Sanskrit relative pronouns and relative structures from the perspective of modern linguistics, for example Hock 1989, Hock 1993, and Klein 2005.

The relative pronouns have also been a subject of study by Sanskrit scholars in ancient India. In particular, rich discussions are found in works of the Kashmiri Sanskrit poetics tradition (*alaṃkāraśāstra*). For example, Mahimabhaṭṭa in his *Vyaktiviveka* (pp. 39–43) classifies the relation between the relative pronoun *yad* and the correlative pronoun *tad* (*yattatsaṃbandha*) in two types: *śābda*, where both pronouns are present, and *ārtha*, where either is absent. The *ārtha* type is further classified in five subtypes, three for the cases with only *tad* and two for the cases with only *yad*. Together with examples and detailed explanation, Mahimabhaṭṭa's theory of the relative pronouns provides a very interesting indigenous analytical tool which has yet to receive the scholarly attention it merits. For modern linguistics, this in some aspects exotic way of looking at the relative pronouns could provide fresh insights. Furthermore, within the Kashmiri Sanskrit tradition, Mahimabhaṭṭa's theory of the relative pronouns has influenced and served as the basis for some later theories on the same topic found in e.g. Chuḍḍaka's *Samanvayadiś*, Devaśarman's *Samanvayapradīpa*, and Kaulagaṇeśa's *Anvayakalikā*.

The present paper concerns the theory of the relative pronouns in Kaulagaṇeśa's *Anvayakalikā*. This hitherto unpublished text, preserved in a single known manuscript housed in the Bodleian Libraries in Oxford, remains virtually unknown to the scholarship. For a few months I have been working on this manuscript, producing a first edition of the text. The title *Anvayakalikā* can translate as 'Bud of Syntax', and the work treats several topics related to Sanskrit syntax such as *sāmānādhikarāṇya* 'coindexation', types of syntactic connection between words, and *yattatsaṃbandha*. The concluding verses reveal that this work belongs to, first and foremost, the Sanskrit poetics tradition (*alaṃkāraśāstra*), its objective being to train Sanskrit poets in writing good, syntactically elegant, Sanskrit.

The third and last section of the *Anvayakalikā* treats the topic of *yattatsaṃbandha*. The theory presented there appears to be based on the *Vyaktiviveka*'s theory described above, but it also differs from it in significant ways: for example, above the level of the *śābda* vs *ārtha* distinction, the *Anvayakalikā* introduces a new three-way distinction of *puṣṭa*, *apuṣṭa*, and *duṣṭa*. In addition, the *Anvayakalikā* criticises several examples from such high classical *kāvya* works as the *Kumārasaṃbhava* and the *Kirātārjuniya*. The present paper presents the *Anvayakalikā*'s theory of the relative pronouns, illustrates where necessary the evolution of ideas from the theories of earlier treatises such as the *Vyaktiviveka*, as well as considers how the Indian theories of the relative pronouns could contribute to modern linguistic thought.

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“Only the Universal is Denoted” – A Reconstruction of the Prābhākara Account on *jāti-śakti* in Gaṅgeśa’s *Tattvacintāmaṇi*

Abstract: In this paper, I want to closely study and reconstruct the Prābhākara account as presented in the *Tattvacintāmaṇi* that a common noun, such as “cow”, denotes only the universal cowness. Every competent Sanskrit speaker agrees that when someone complies with the command “bring [a] cow!” (“*gām ānaya*”), one brings a cow, such as Betsy the cow. So it does seem that the word “cow” (singular) stands for an individual object. Nevertheless, the Prābhākaras argue that the denotation (*śakya*) of a common noun like “cow” is only the universal cowness.

To reconstruct their account, I will first explore the reasons that make the Prābhākaras reject an individual being the denotation of a word like “cow”, and reasons that make them assume that the universal is necessarily denoted. Then, I will address what I call the “Universalist Problem” on behalf of the Prābhākaras. The Universalist Problem is as follows: if “cow” denotes cowness, then “bring [a] cow” will mean bring the universal cowness. In this case, how is it that a competent speaker will think of an individual that is characterized by cowness, i.e. something that is a cow, when they hear the word “cow”, such that they bring such a cow to comply with the command? In brief, the Prābhākaras address the problem with the following argument. Whenever a competent speaker hears “cow”, just by recalling the denotative power (*śakti*) of “cow” to convey cowness, they will think of both the universal cowness and an individual that instantiates cowness. This is because, as a matter of how cognition (*jñāna*) works, we cannot think of any universal without thinking of it as instantiated in an individual. Therefore, both cowness and a cow are cognized in the same epistemic event (*eka-vitti-vedyatva*). And so, to be parsimonious, we should only assume the denotative power of “cow” to convey only cowness.

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A Pragmaticist Theory of Meaning in Bharṭṛhari’s Vākyapadīya (2.285-2.297).

The paper examines Bharṭṛhari’s understanding of common opinion or practice (*prasiddhi*) as a determinant of both linguist meaning and epistemic knowledge, focusing on the *Vākyapadīya* (VP) 2.285-2.297. This section, which appears as part of a broader survey of the various views on figurative language extant in Bharṭṛhari’s time, discusses the criterion by which to discern between primary and secondary meaning, seeing this case as analogous to valid and erroneous cognition in the case of perceptual error. In this section it is argued that a judgment concerning the falsity of cognition requires the primacy (ontological or logical) of a valid cognition, and similarly the understanding of secondary meaning the assumption of primary meaning. In contrast to one’s expectations, however, this account does not amount to a form of philosophical realism but rather to a pragmatist notion of truth and meaning which presents a unique interpretation, both linguist and epistemic, of “common practice” (*prasiddhi*).

² Sanskrit has no articles “an”, “a”, and “the”. For example, a singular common noun, such as *padmam* (lotus / singular / nominative) could mean “a lotus” or “the lotus”; it usually depends on the context to determine which meaning is appropriate. In the following, I will translate according to what I think is appropriate in the discussion.