Selected Bibliography on Indian Logic and Ontology. Second Part: M - Z

BIBLIOGRAPHY


   "This Nyaya-Buddhist controversy over the empty subject term may well recall to a modern mind the Meinong-Russell controversy about 'existence' and 'denotation'. The Nyaya and the Buddhist logicians worried over the logical and the epistemological problem connected with the issue. The Nyaya interpreted "the rabbit's horn" not as a singular term but as a predicate complex attributing 'hornness' to something that belonged to the rabbit. "The rabbit's horn does not exist" ascribes the absence of hornness to something belonging to a rabbit, and is true. This analysis is closer to Russell's theory of description. The Buddhist, on the other hand, is prepared to allow some sort of 'fictional existence' to "the rabbit's horn" which is perhaps not very different from Meinong's 'theory of objects'. In epistemology the Nyaya believed that any object of cognition (which is expressible in words) must be either real or analyzable into constituents which are ultimately identifiable with some real entity or other. Only a complex object can be fictional. The Buddhists, however, hold that the objects of erroneous cognition are fictional."


   "When H. N. Randle (in 1930) interpreted 'sadhyasama' as petitio principii, he made a mistake. Unfortunately, many scholars accepted randle's interpretation. It has been shown that Randle was wrong about this interpretation. 'Sadhyasama' can be correctly translated as a fallacy of being in the same predicament with yet-to-be-proven proposition. Petitio is a different fallacy, as it has been described by Aristotle. Some general comments have been made on the notion of fallacy, and on the distinction between 'formal' and 'non-formal' fallacies."

   "The meaning of "cause" is much wider in some Indian philosophical schools than in the West. the Buddhist terms, "hetu" and "prataya", cover an unusual variety of causal notions. The Vaisesika notion of cause is said to be closer to commonsense. A causal substrate in this system approximates the notion of "material" cause in Aristotle, but the "non-substantial" cause is a unique notion in this system. The Nyaya
critique of causation (in Udayana) can be profitably compared and contrasted with that of David Hume. It has been further argued in the paper that Mill was a poor defender of Hume against Reid, and that the Navya-Nyaya analysis of the 'unconditionality' criterion was slightly better than that of Mill.


A history of Indian literature: vol. 6, II.


"The Nyaya-Vaisesika believed that we can achieve a satisfactory explanation of 'what there is' if we can analyse and classify the concrete objects of our experience into 'substance', 'quality' and 'action'. The Buddhist thought reality to be in perpetual flux and thus the objects of experience are synthetic and analysable into what they called "dhammas". The Jains compromised by saying that reality is 'many-sided', both substantial (when we take the Nyaya point of view) and ever fluctuating (when we take the Buddhist position). In Whiteheadian terms, it is a combination of 'process' and 'reality'. A comparison, in some details, of these three Schools is attempted in the paper."


"Classical Indian theories of error are discussed to show their relevance to the philosophical problems of the Cartesian epistemologists in general and the British empiricists in particular. The concept of "alambana" and "pratibhasa" as discussed by the Sautrantika-Yogacara School is explained and the views of the "sense-data" philosophers are discussed in this connection."


Edited by Jonardon Ganeri and Heeraman Tiwari


Edited by Jonardon Ganeri


"The peculiar features of Indian theories of truth, according to this paper, are: (I) a theory of cognitive occurrent; (II) absence of a theory of meaning as distinct from reference; (III) a consequent position that avoids the extremes of logicism and psychologism; (IV) a restricted theory of necessary truths, a fallibilism with regard to empirical truths and infallibilism with regard to moral truths; (V) a close connection between cognitive enterprise and practice; and (VI) reliance on reflective analysis of the cognitive situation."


"Taking up the pluralistic realism of Nyaya Vaisesika and monistic idealism of Advaita Vedanta, the paper enquires into the origins of this ontological difference. While the theory of "Pramanas" (or theory of knowledge) was used to certify the ontology, the epistemology itself was incorporated into the ontology. No absolute point of beginning is available for a system, both the systems claim to give accounts of ordinary language and ordinary experience. The search for an extra-systemic evidence is frustrating."


From the Preface: "This is a book that I always wanted to write, but the project had to be postponed until this stage in my life. Having learned Indian philosophy under two great Sanskrit Pandits -- the late Mn. Yogendranâth Tarkavedântatirtha and the late Pandit Ananta Kumar Tarkatirtha -- I wanted to convey to Western scholars something of the education I had received. Hopefully, I have succeeded in doing so in some measure. There are gaps that I would like to fill, and there are topics on which I would like to elaborate, should there be an opportunity to do so in the future. For the present, I am glad to be able to send this manuscript to the press."


Two volumes: 1. Indian philosophy; 2. Western philosophy


"My attempt is to produce some evidence to show that the notions of implication and entailment are clearly distinguished in Navya-Nyaya logic. This is done by examining the nature of the Navya-Nyaya syllogism and showing that the Naiyayikas were aware of various definitions of material implication but rejected them as definitions of vyapti (implication), not because they led to inferential paradoxes but to semantic ones; they in fact never confused implication with entailment. The entailment relation is contained in their notion of "paramarsa" and appears as the last premise in the argument which immediately precedes and thus 'causes' the conclusion."


"Aristotle struggles with two basic tensions in his understanding of reality or substance that have parallels in Indian metaphysical speculation. The first of these tensions, between the understanding of reality as the underlying substrate (to hupokeimenon)and as the individual "this" (tode ti), finds a parallel in the concept of dravya in Patanjali's Mahâbhasya. The second tension, between the understanding of reality as the individual this and as the intelligible essence of the individual this (to ti en einai), corresponds to an ambiguity in the concept of vastu in Kumarila's Slokavarttika."


"The paper takes up the question as to which logical framework is most suitable for a formal interpretation of Navya-Nyaya logic. It is claimed that, for this purpose, the framework offered by extensional first-order predicate logic is inadequate. This claim is established by discussing three well-known difficulties: the interpretation of the notion of Jnana, the question whether contraposition is a law of Navya-Nyaya logic, and the interpretation of the Navya-Nyaya scheme of inference. Next, the interrelatedness of these difficulties is pointed out, and, carrying through the analysis, it is examined whether situation semantics offers a suitable alternative framework."


"The aim of the paper is to demonstrate that the most ancient varieties of "Indian logic" are significantly related to theories associated with the term "non-monotone logic" in so far as they try to account for reasoning relying on the ability to use general rules subject to exceptions and indicate a conception of context-dependent validity implying that valid inferences or arguments can lose this status in the context of additional information. On that background it is possible to give a theoretical justification for a number of features of Indian theories of inference which previously appeared theoretically ill motivated and which were often explained by historical coincidences."


"Volume 1: Epistemology is concerned with the nature and scope of Indian *pramāṇa* theory, i.e. that part of Indian philosophy concerned with the nature and sources of knowledge. Indian philosophers developed a causal theory of knowledge and acknowledged the existence of a number of valid ways of knowing, including perception, inference and testimony. The Indian *pramāṇa* theorists thus discussed many issues that have also occupied Western epistemologists, often offering importantly different perspectives on these matters. They also sometimes addressed various interesting questions about knowledge that are unfamiliar to Western epistemologists. The selections in this volume discuss Indian treatments of epistemological topics like the means of knowledge, realism and anti-realism, truth, knowledge of knowledge, illusion and perceptual error, knowability, testimony, scepticism and doubt."


"Volume 2: Logic and Philosophy of Language is concerned with those parts of Indian *pramāṇa* theory that Western philosophers would count as logic and philosophy of language. Indian philosophers and linguists were much concerned with philosophical issues to do with language, especially with theories of meaning, while the Indian logicians developed both a formalised canonical inference schema and a theory of fallacies. The logic of the standard Indian inferential model is deductive, but the premises are arrived at inductively. The later Navya-Nyaya logicians went on to develop too a powerful technical language, an intentional logic of cognitions, which became the language of all serious discourse in India. The selections in this volume discuss Indian treatments of topics in logic and the philosophy of language like the nature of inference, negation, necessity, counterfactual reasoning, many-valued logics, theory of meaning, reference and existence, compositionality and contextualism, the sense-reference distinction, and the nature of the signification relation."


"Volume 3: Metaphysics is concerned with the complement to *pramāṇa* theory, i.e. *prameya* theory. Whereas the *pramanas* are the means of knowledge, the *prameyas* are the knowables, cognisable entities..."
that constitute the world. With respect to the number and kinds of such entities, there was a very wide variety of opinion among classical Indian philosophers - including variants of monism, dualism and pluralism about both entities and kinds. Many metaphysical topics were debated, but two of the most important were causation and the nature of the self. The competing theories offered about these two issues also raised other questions about the metaphysics of wholes and parts, substances and properties, and universals and particulars.

The selections in this volume discuss Indian treatments of topics in metaphysics like ontology, constructualism, universals, negative facts, mereology, causation, relations, freedom and determinism, and theories of the self.


"The primary aim is to construct, within the Navya-Nyaya system, an analysis of sentences such as 'virtue is not blue', which they would claim are meaningful. There is a discussion of their important distinction between meaningful sentences and sentences which generate or have the ability to generate a cognition, and their concept of negation. The secondary aim is to compare their analysis with certain Western philosophers, especially those who follow the theory of types."


"The purpose of this paper is to demonstrate how the Navya-Nyaya school of Indian philosophy determines the truth or falsity of a sentence which contains an empty term, and to point out some similarities and differences between its method of analysis and truth-value determinations of such sentences and that of Bertrand Russell."


"The purpose of this article is to discuss the Navya-Nyaya's thesis that absence is an ontological category, which is to say that there are negative entities, and its corollary that there are negative facts. The Nyaya resists all attempts to eliminate negative facts in favour of positive facts. In addition, we see that no atomic sentence can have a negative subject-term."


"As part of its direct realism in the epistemology of perception, classical Indian Nyaya posits indeterminate perception where a qualifier is grasped immediately without being grasped as qualifying its qualificandum, the thing whose property it is. Contemporary philosopher, Arindam Chakrabarti, argued in Philosophy East and West 50, no. 1 (January 2000) that Nyaya would best eschew such "indeterminate perception." This paper offers a defense drawing on the classical texts. It is explained in particular that while there is no claim of direct, apperceptive evidence for raw perception, there is an argument that ties up all verbalizable cognition, including verbalizable perception, as having the qualifier it presents as available through previous experience. But with a first-time perception of something as, say, a cow, the cognizer's memory not informed by previous cow experience could not possibly provide the qualifier, cowhood, and the best candidate seems its perception in the raw."


Transliterated text, translation, and philosophical commentary.


   "I endeavor to show that J. N. Mohanty's claim of incommensurability among Indian epistemological theories is based on a justified true belief account of knowledge; that "Pramanya" doesn't mean truth but rather workability; that Indian theories of knowledge are not predicated on noncognitivism in values as Western ones are; that the claim incommensurability among Indian epistemological theories is a result of imposing on them shortcomings in contemporary Western ways of thinking."


Indian Logic and Ontology. Bibliography. Second Part: M - Z


"The article shows how the Hindu tradition and specially Vedanta has come to express its own experience of truth. It views the problem of truth ontologically: ultimate truth cannot be 'known' like a finite object; it is in fact the 'knower' himself, Atman, the unconditioned being. Both absolutistic and theistic interpretations of Atman/Brahman are considered. It concludes: truth is spiritual reality, being of our being and the meaning of all finite existence."


Foreword by Irving M. Copi


"Conflicting statements appear in the Vaisesikasutras about how knowledge of imperceptible entities is attained. Passages from the Sutras are compared with the Samkhya Sastitantra, the Nyayasutras, Nyayabhasya, and other early texts. Impact of the Sastitantra on Vaisesikasutras and Nyayabhasya was strong. Contradictions within Vaisesikasutras reveal the compilers' grappling with the Samkhya theory over a period of time. Bias in favor of direct perception dominates the Vaisesika text."


"One of the aims of this paper is to discuss the different senses of the term 'existence' as used by the Nyaya philosophers. This discussion leads us to a discussion on absence or negation and its role in logic. A discussion on empty terms has also been introduced in this context. According to the Nyaya, existence, knowability and nameability are considered as universal properties. The distinction between these universal properties has been discussed in this context. I have also discussed the question whether the Nyaya has used redundant terms in designating the same imposed property by using three different terms. A distinction between different senses of the term 'property' has also been discussed in this context."


"The aim of this paper is to discuss the Nyaya concept of negation and the different types of negation. This discussion involves a discussion of the Nyaya concept of cognition, relation and meaning. The Nyaya has drawn a distinction between qualificative and non-qualificative cognition. A qualificative cognition can be represented by the form "arb". The Nyaya concept of negation cannot be said to be a term-negation, or a sentence-negation, or a propositional function negation. The conclusion is that the Nyaya concept of negation does not correspond to any Western concept of negation."


"The aim of this paper is to discuss I) whether the following sentences have the same meaning, II) whether they have the same truth-value, III) whether there is some assertion common to all of them, and IV) if there is some such assertion, whether it can be defined. 1) all men are mortal, 2) whoever is a man is mortal, 3) wherever there is humanity, then there is mortality, 4) if anyone is a man, then he is mortal, 5) if humanity is present somewhere, then mortality is also present there."


"The customary assumption that the Indian concepts of hetu, sadhya and paksa correspond to the Aristotelian middle, major and minor terms, respectively, is incorrect. The concept of paksa is used ambiguously in Indian logic, where it denotes either the term whose property is the sadhya, or the relation between that term and the sadhya. Another ambiguity of the Sanskrit originals, between paksa as used and paksa as mentioned, is resolved in a Chinese translation."


"In Indian culture the concept of metalanguage originated early in the context of linguistics and speculations on language; in the West, late in the context of logic. This is related to the grammatical character of Indian culture and the mathematical character of Western culture. Connections are made between metalinguistic notions and technical, in particular poetic and ritual languages; Mantras; the origin of phonetic writing; communication and metacommunication among animals and men; and the origin of language."


"The Mimansa school of Indian philosophy developed two distinct theories of the relation of the meaning of a sentence to the meanings of the words that comprise it, the Anvitabhidhana or "qualified designation" theory and the Abhihitanvaya or "designated relation" theory. Both of these theories, I attempt to show, turn on the observation that the meanings of individual words change in different sentences. I go on to suggest that an appreciation of this fact can lead to a solution of the problem, first raised by Frege, of the change of meaning of terms in intensional contexts."


"Claus Oetke, in his "Ancient Indian logic as a theory of non-monotonic reasoning," presents a sweeping new interpretation of the early history of Indian logic. His main proposal is that Indian logic up until Dharmakirti was nonmonotonic in character-similar to some of the newer logics that have been explored in the field of Artificial Intelligence, such as default logic, which abandon deductive validity as a requirement for formally acceptable arguments; Dharmakirti, he suggests, was the first to consider that a good argument should be one for which it is not possible for the property identified as the "reason" (hetu) to occur without the property to be proved (sadhya) -- a requirement akin to deductive validity. Oetke's approach is challenged here, arguing that from the very beginning in India something like monotonic, that is, deductively valid, reasoning was the ideal or norm, but that the conception of that ideal was continually refined, in that the criteria for determining when it is realized were progressively sharpened."


"This article consists of four parts: explanations of basic technical terms as an introduction, a translation of the Nyayapravesa, notes to the translation, and a romanized text based upon Dhrufa's edition. This work is Samkarasvamin's introduction to Dignaga's logic, and deals with means of proof, fallacious means of proof, means of refutation, perception, inference, fallacious perception and fallacious inference."

Translated by Jaysankar Las Shaw.

"The aim of this paper is to discuss the views of Nyaya philosophers on meaning. This paper deals with the meaning and reference of proper names, and general terms. It also deals with the meanings of homonymous expressions, and discusses the question whether demonstrative pronouns are homonymous terms. Different uses of personal pronouns have been mentioned. The section on the quantifier 'all' deals with different uses of it. Similarly, the section on interrogative pronoun deals with as many as seven uses of an interrogative pronoun. This paper ends with the discussion of the meaning of a sentence."


"The problem of universals in Indian philosophy is as old as c. 400 b. C. In his great work, Astadhyayi, the grammarian Panini introduced the problem of universals while discussing the meaning of a noun. Later, the Nyaya and Vaisesika systems of Indian philosophy discussed the universals in great detail. The present article deals with the early Nyaya view of universals. The article is divided in two parts: one gives a brief general introduction to the problem; the other contains a fresh translation of the Nyaya-Sutras 2.2.58-70 and Vatsayana's commentary on them. The translation is also supplied with discussions and analysis. The article tries to demonstrate that the Nyaya system extends the debate about word and meaning which was inaugurated by early Sanskrit grammarian (viz., Panini, Patanjali etc.)."


"The main argument of my article is to show that the question regarding the metaphysical status of relation is the central problem of Indian metaphysics as it is this that determines the nature of the major systems. four possible alternatives have been discussed: a) relation is as real as the terms (pluralistic realism like the Nyaya etc.), b) the terms are real but the relation (between Prakrti and Purusa) is false (Samkhya dualism), c) the falsity of relation means the falsity of one of the terms also (Advaita Vedanta and Vijnanavada), d) the falsity of relation entails the falsity not only of one term but of both the terms (Madhyamika). I have treated the relation between identity and difference as most basic."


"One of the most important problems discussed in Nyaya philosophy of language is whether words denote an individual or a universal. On this point there are basically two schools of thought which oppose one another, i.e., the Mimanskas and the Naiyayikas. The texts of Muktavali, Dinakari and Ramarudri dealing with this topic give a brilliant summary of the long drawn out conflict between the two Schools. The authors of these texts established the Nyaya position that the denotative function of words is in the individual as qualified by the universal and the present essay examines these arguments and counterarguments."


"Nyaya is the most rational and logical of all the classical Indian philosophical systems. In the study of Nyaya philosophy, Karikavali with its commentary Muktavali, both by Visvanatha Nyayapancanana, with the commentaries Dinakari and Ramarudri, have been of decisive significance for the last few centuries as advanced introductions to this subject. The present work concentrates on inference (anumana) in Karikavali, Muktavali and Dinakari, carefully divided into significant units according to the subject, and translates and interprets them. Its commentary makes use of the primary interpretation in Sanskrit..."
contained especially in the Ramarudri and Subodhini. The book begins with the Sanskrit texts of Karikavali and Muktaivali; followed by English translation of these texts. Next is given the Sanskrit text of Dinakari which comments on the first two texts, followed by its English translation. Lastly, the book contains a commentary on all the texts included."


Edited by Robert S. Cohen.


"A comparison between the analysis of padārtha (the object of the word) by the Nyāya tradition and the Theory of Incorporais by Stoicism leads us to significantly modify the metaterminology in use among the sanskritists who specialize in the interpretation of Ancient Logic texts. Specifically, if we make use of the philosophical and grammatical terminology that we have inherited from the Stoicians in order to translate and comment Nyāyasūtra II. 2.58-69, which deal with padārtha, we not only recognize the hierarchy «letter-syllable-word-utterance» that pervaded the whole structure of ancient grammar, but at the same time we bring to light the realistic and vitalistic ontology (we might call it a physiology of notions) which was the framework within which the grammatical theory was evolved."
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