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Jonardon Ganeri (ed.), *Indian Logic: A Reader*, Richimond, Surrey: Curzon Press, 2001, ix + 211 Pp, £14.99 (Paperback).

This book contains ten articles on Indian logic written by Western scholars over the past two hundred years. The editor, Jonardon Ganeri, characterizes all the articles as epoch-making or landmark works in the history of the study of Indian logic. He places the articles in chronological order as follows:

1. Henry T. Colebrooke: On the Nyāya and Vaiśeṣika Systems (1824)
2. Max Müller: On Indian Logic (1853)
3. H.N. Randle: A Note on the Indian Syllogism (1924)
4. Stanisław Schayer: Studies in Indian Logic (1932-3)
5. Stanisław Schayer: On the Method of Research into Nyaya (1933)
6. Daniel H.H. Ingalls: Logic in India (1955)
7. I.M. Bochenski: The Indian Variety of Logic (1956)
8. J.F. Staal: The Concept of *Pakṣa* in Indian Logic (1973)
9. Sibajiban Bhattacharyya: Some Aspects of the Navya-Nyāya Theory of Inherence (1987)
10. Bimal Krishna Matilal: Introducing Indian Logic (1998)

Ganeri regards Colebrooke's article as a new departure in the study of Indian logic in the West. Says the editor in his preface, "The modern study of classical systems of logic began with H.T. Colebrooke's 'discovery' of the Hindu syllogism - schema for correct reasoning as described in the early Indian texts" (p. vii). Ganeri assesses the article highly and states that "Colebrooke, I think, deserves recognition for attempting to set comparative philosophy on a secure methodological basis" (p. 21). It might be appropriate, therefore, to give Colebrooke the title of pioneer of comparative philosophy. In this way, the modern study of Indian logic began on the basis of comparative philosophy of India and Europe and the serious conflicts lying between East and West encountered by Western philosophers.

Actually, in his introduction to the present book entitled "Indian Logic and the Colonization of Reason," Ganeri illustrates impartially the conflicts which impeded or distorted the progress of the study of Indian logic. Thanks to his detailed explanation about the historical background of studies in Indian logic, we can see clearly how European intellectual circles in the nineteenth century were tossed by the waves of contrast between Eastern and Western philosophy. For example, Ganeri introduces a disparity that was prominent in Europe in the early

twentieth century, namely, while Western philosophers were engaged in the analysis and clarification of the concepts which formed the basis of scientific enquiry, Eastern philosophers explored a "mysterious and fundamental sort of self-knowledge" in H.H. Price's phrase. With regard to Eastern philosophers' attitude toward mysticism, Ganeri searches its origin in the colonized Indian intellectual struggle for an indigenous, non-European identity, insisting that 'neo-Hindu' thinkers like Vivekananda, Radhakrishnan, and many others, devaluating rational, logical elements in Indian thought, stressed that Indian philosophy was essentially spiritual, subjective and synthetic. With regard to Western philosophers' attitude toward rationalism, on the other hand, Ganeri points out their belief in the privileged position of European intellectual authority. Some European philosophers continued to insist that their own philosophy was superior to the colonial in the development of reason and science, ever after meeting what could be called Indian 'syllogism', which was closely akin to the Greek system, through Colebrooke's account.

It is very important to understand the cultural context surrounding the conflict between Indian and European philosophy in order to develop comparative philosophy. Therefore, Ganeri's introduction is helpful, especially for non-European scholars, in elucidating the atmosphere of European intellectual circles of that period.

The third chapter of Ganeri's Introduction entitled "The Syllogistic Interpretation of Indian Logic", introduces Colebrooke's explanation of syllogism as follows (p. 8):

> Colebrooke describes the *Nyāyasūtra* analysis of an argument schema as follows (this volume, pp. 47-8):
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> > A regular argument or syllogism (*nyāya*) consists of five members (*avayava*) or component parts, 1st, the proposition (*pratijñā*); 2nd, the reason (*hetu* or *apadeśa*); 3rd, the instance (*udāharaṇa* or *nidarśana*); 4th, the application (*upanaya*); 5th, the conclusion (*nigamana*). Ex.
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> > 1. This hill is fiery:
> > 2. For it smokes.
> > 3. What smokes is fiery: as a culinary hearth.
> > 4. Accordingly, the hill is smoking:
> > 5. Therefore it is fiery.

This argument schema has frequently been taken up as a topic for consideration, compared with Aristotle's syllogism or mathematical logic, and interpreted by Indian and European scholars. The important issue for comparative studies of logic is first to precisely understand the syllogism or mathematical logic upon which those studies were based. As Ganeri points out, although the idea that Indian philosophy was essentially spiritual was still prevalent in the nineteenth and early twentieth centuries, some European philosophers were aware that India did have rationalist and scientific traditions. In Colebrook's time, Boole, Hamilton and De Morgan, who were great innovators of Western logic and who were likely

aware of Indian thought, may have indirectly served to create the situation in which European scholars who had an interest in Indian logical thought came to understand Indian syllogism. Take another example: Stanisław Schayer, who was a pupil of Lukasiewicz, the famous mathematical logician, showed that the authentic Aristotelian and traditional syllogisms did not provide a suitable basis for the interpretation of Indian syllogistic theory. We see that when the study of Western logic was progressively developing, the study of Indian logic was also making great strides forward.

Unfortunately, it appears that Schayer's way of interpretation in terms of the predicative formulae of modern logic was not necessarily suitable for an understanding of the *nyāya* argument schema. In this regard, it is also an important condition for comparative study to assess Indian logical thought in its own context, and not in the context of Western logic. I would like to cite an instance from Ganeri's introduction: "Forgetting the point, made so long ago by Max Müller and repeated by Schayer himself, that if the Indian syllogism is not judged in its own terms it is bound to appear to be a clumsy version of whatever logic is being used to judge it, Bochenski can find in Indian logic only a modest anticipation of formal logic, and fails to discover a genuinely different theory". (p. 17) I agree with Ganeri.

Frits Staal had just reached the next stage in the development of the syllogistic interpretation of the Indian schema. He introduced two schemas, $A(x, y)$, standing for 'x occurs in y', and $B(x, y)$, standing for 'x belongs to y' to interpret the Indian syllogism in the context of Indian logic. Sibajiban Bhattacharya and Matilal both went on to develop Indian logic as a logic of property possession. In addition, Matilal made a clear distinction between the Indian concept of logic and the modern Western concept of logic. He recognized epistemological issues in so-called Indian logic, and pointed out that India's psychologized logic and logical theories were influenced by the study of grammar in India rather than by mathematics. In this way, he tried to defend the Indian way of thinking in the interpretation of Indian logical thought by clarifying semantically the distinctiveness of Indian logic. In his preface, Ganeri emphasizes that Matilal's work can help the modern audience to finally understand the distinctive contours of Indian logic, where it differs from Western theory and where its uniqueness and potential lies. It should be noted, moreover, that Matilal's work also reflects modern analytical philosophy. His work, Chapter 10 of the present book, is the latest major achievement in the study of comparative philosophy.

Finally I would like to briefly discuss the argument schema in Indian logic. As mentioned above, the argument first described by Colebrooke (the example of fire and smoke on the hill) has been characterized as the '*Nyāyasūtra* analysis of an argument schema', but it is not quite correct to regard it as such. Like the *Tarkasaṃgraha,* this example is contained in the later Nyāya-Vaiśeṣika texts, not in early Nyaya texts such as the *Nyāyasūtra* and the *Bhāṣya* on it. Indeed, Vātsyāyana, the author of the *Bhāṣya*, provides an example of the inference of fire from smoke, but this example cannot be interpreted as the argument form consisting of *pakṣa*, *sādhya* and *hetu*. I think the logical theory of the early Nyāya

has been misunderstood. It is important to be careful not only about theoretical context, but also about the historical background of Indian logical thought both.

Ganeri's introduction is an excellent survey of the study of Indian logic and a valuable cultural review of the spirit of Europe. Says Ganeri, "What we can see, however, is that any comparative project is liable to catch the Indian theory in a doubled-bind: either Indian logic is not recognized as logic in the Western sense at all; or if it is, then, it inevitably appears impoverished and underdeveloped by Western standards." (p. 21) That may be true of Europe, but I have never experienced a double bind in this way. On the contrary, it seems to me that the scale of Western standards is too limited to measure the abundance of Indian philosophical knowledge. Such European thinking may be deeply rooted in the longstanding conflicts between East and West. At any rate, it is very true that "the effort must continually be made to explain the distinctiveness in the goals, methods and techniques of Indian logic". (p. 22)

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