NEWSLETTER | The American Philosophical Association

Asian and Asian-American Philosophers and Philosophies

FALL 2018

VOLUME 18 | NUMBER 1

ISSN 2155-9708

APA NEWSLETTER ON

Asian and Asian-American Philosophy and Philosophers

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VOLUME 18 | NUMBER 1 | FALL 2018

FROM THE EDITOR

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The fall 2018 issue of the newsletter is animated by the goal of reaching a wider audience. Papers deal with issues mostly from classical Indian philosophy, with the exception of a report on the 2018 APA Eastern Division meeting panel on "Diversity in Philosophy" and a review of a book about the Indian philosophy that flourished during the period from 1857 to 1947. I will divide the contents of this issue under five major categories: (i) Buddhism; (ii) ontology, logic, and epistemology; (iii) philosophy of language and grammar; (iv) a panel on "Diversity in Philosophy"; and, finally, (v) a book review.

SECTION 1: BUDDHISM

In her paper, "Locating Early Buddhist Logic in Pāli Literature." Madhudhumita Chattopadhyay discusses how some of the significant characteristics of reasoned discourse can be traced back to the early Buddhist literature. Although most Buddhist literature in Pāli contains Buddha's words and sermons, she argues that the latter are not devoid of reasoned discourse concerning how to lead one's life. Excavating a large chunk of early Buddhist literature in Pāli, she reconstructs the Buddhist's way of how to correctly argue and counter-argue among Buddhists and beyond where the rational spirit of Buddha could be clearly felt. The purpose of her paper is to show that this critical attitude to justify every assertion, whether religious or otherwise, paves the way for the Buddhist's development of certain rules of logic core to defending one's thesis and contesting the views of the opponent.

Rafal Stepien's paper, "Do Good Philosophers Argue? A Buddhist Approach to Philosophy and Philosophy Prizes," begins with the news of a recently inaugurated Berggruen Prize awarded every year to someone whose work has a broad significance in terms of the advancement of humanity, broadly construed. The paper mentions two recent recipients of these awards who are well-known philosophers. Stepien observes that the current climate of contemporary philosophy is very much argumentative and combative. Unlike this argument-for-argument's-sake attitude in analytic philosophy, he considers Buddhism as another respectable school of thought where a very different attitude of fellow-feelings and understanding for the other prevails. In Buddhism, he argues, arguments and critiques are employed only when they are regarded as contributing to the well-being of both proponent and opponent equally. He pleads for the need for this sort of role of humanism to be incorporated into Western analytic philosophy. This incorporation, he contends, has a far-reaching impact on both private and public lives of human beings where the love of wisdom should go together with care and love for fellow human beings.

SECTION 2: ONTOLOGY, LOGIC, AND EPISTEMOLOGY

This is the longest part of this issue. Here, I will discuss briefly four papers addressing issues overlapping with ontology, logic, and epistemology. In his paper, "Iswaravada: A Critique," Pradeep Gokhale distinguishes arguments for the existence of God in the classical Indian tradition in two ways: (i) God as material cause and (ii) God as efficient cause. He thinks that the problem of evil issue arises only for the former and not for the latter. He also considers six types of argument for the existence of God in the Nyaya-Vaisesika tradition, which is one key school in the classical tradition. The author also evaluates arguments against the Nyaya-Vaisesika school as advanced by Buddhists and Carvakas.

Palash Sarkar's paper, "Cārvākism Redivivus" reconstructs the Cārvākā critique of inductive inference. The Cārvākā philosophy, which was a revolt against any kind of supernaturalism, thrived in the sixth century BCE. It does not endorse any form of valid knowledge, including inductive inference, other than perception. Criticisms are made against the Cārvākā view by almost all well-known schools of classical philosophy. However, Sarkar thinks that there is a way to make sense of the Cārvākā view if we take the liberty of making use of the tools of the probability theory to quantify uncertainty essential to understanding inductive inference. Although some previous attempt (Ghokale, 2015) has been made to connect the Cārvākā account of induction and probability theory, Sarkar thinks that his account is more adequate as it is able to reconstruct this rebel philosophy aptly by his more sophisticated use of the probability theory.

Kisor K. Chakrabarti wrote a book in 2010 to address how Nyāyā philosophy, which provides the logical framework for most discussions of classical philosophy, is able to address the well-known problem of induction. The latter arises when we make inferences about an unobserved body of data based on an observed body of data. But there is no justification for this inductive lea. In their paper, Prasanta S. Bandyopadhyay and Ventaka Raghavan, however, disagree with Chakrabarti and argue that his argument does not pan out in the final analysis. This means that Chakrabarti's

account based on exploiting Nyāyā philosophy fails to address the problem of induction. In his rebuttal, Chakrabarti thinks that Bandyopadhyay and Raghavan's arguments are flawed and there is a way to reinstate his argument for why he thinks that Nyaya philosophers can handle the problem of induction satisfactorily.

SECTION 3: PHILOSOPHY OF LANGUAGE AND GRAMMAR

The role of a word is crucial in any language as it is a primary constituent of a sentence through which people converse and understand the meaning of the others. Sanjit Chakraborty's paper on "Remnants of Words in Indian Grammar" addresses the debate on some aspects of Indian philosophy of grammar and its connection to Indian philosophy of language revolving around two questions: What sort of entity meanings should be identified with? And how does a linguistic expression, say a sentence, express a meaning? Two schools regarding this debate are *vyakti-śakti-vāda* (meaning particularism) and *jāti-śakti-vāda* (meaning generalism). The former theory claims that the meaning relatum of a nominal is a particular object. In contrast, the latter theory claims that the meaning relatum of a nominal is a general feature or property. The paper explores different ramifications of holding each theory in classical Indian philosophy of language and defends the grammarian's *Sphoṭa* theory as a word-meaning liaison.

SECTION 4: APA PANEL ON DIVERSITY

One purpose of this newsletter is to report from time to time about various meetings and issues we discuss as Asian American philosophers and what we think we can contribute to the American Philosophical Association (APA). Diversity is one of the central issues currently in the US. So as a diverse group of the APA, we take this challenge seriously. To this end, the Committee on Asian and Asian-American Philosophers and Philosophies sponsored a panel entitled "Diversity in Philosophy" at the 2018 Eastern Division Meeting of the APA in Savannah, Georgia. The panel featured B. Tamsin Kimoto (Emory University), Amy Donahue (Kennesaw State University), Monika Kirloskar-Steinbach (University of Konstanz), and Denise Meda Calderon (Texas A&M University). Brian Bruya (Eastern Michigan University) and Julianne Chung (University of Louisville) were unable to attend due to weather. Ethan Mills, one of the members of this committee who attended this meeting, has prepared a report for this issue on the panel.

SECTION 5: BOOK REVIEW

Nalini Bhushan and Jay Garfield recently published a book from Oxford University Press with the title, *Minds without Fear*. Brian A. Hatcher has reviewed their book for the newsletter.

Without the help of several people, it is almost impossible to produce a newsletter of such a quality regularly. I am thankful to our referees including Kisor Charkabarti, Marco Ferranto, Pradeep Gokhlae, Shi Huifeng, Ethan Mills, and Ventaka Raghavan for their valuable inputs to the revision of various papers. My special thanks are to Rafal Stepin for kindly responding to my desperate call to find a referee for me to review a paper within a short notice. As always, I also thank Erin Shepherd profusely for her advice concerning different logistics regarding the newsletters, especially this time providing me with additional time to include some of the late papers for this issue. I very much appreciate Brian Bruya, the chair of this committee, for his advice, encouragement, and generosity with his time whenever I needed help on some matters regarding the newsletter. I am also thankful to JeeLoo Lie for her advice whenever I needed it. Zee loo ….

SUBMISSION GUIDELINES AND INFORMATION

GOAL OF THE *NEWSLETTER ON ASIAN AND ASIAN-AMERICAN PHILOSOPHERS*

The *APA Newsletter on Asian and Asian-American Philosophers and Philosophies* is sponsored by the APA Committee on Asian and Asian-American Philosophers and Philosophies to report on the philosophical work of Asian and Asian-American philosophy, to report on new work in Asian philosophy, and to provide a forum for the discussion of topics of importance to Asian and Asian-American philosophers and those engaged with Asian and Asian-American philosophy. We encourage a diversity of views and topics within this broad rubric. None of the varied philosophical views provided by authors of newsletter articles necessarily represents the views of any or all the members of the Committee on Asian and Asian-American Philosophers and Philosophies, including the editor(s) of the newsletter. The committee and the newsletter are committed to advancing Asian and Asian-American philosophical scholarships and bringing this work and this community to the attention of the larger philosophical community; we do not endorse any particular approach to Asian or Asian-American philosophy.

SUBMISSION GUIDELINES

1) **Purpose**: The purpose of the newsletter is to publish information about the status of Asians and Asian Americans and their philosophy and to make the resources of Asians and Asian-American philosophy available to a larger philosophical community. The newsletter presents discussions of recent developments in Asians and Asian-American philosophy (including, for example, both modern and classical East-Asian philosophy, both modern and classical South Asian philosophy, and Asians and Asian Americans doing philosophy in its various forms), related work in other disciplines, literature overviews, reviews of the discipline as a whole, timely book reviews, and suggestions for both spreading and improving the teaching of Asian philosophy in the current curriculum. It also informs the profession about the work of the APA Committee on Asian and Asian-American Philosophers and Philosophies. One way the dissemination of knowledge of the relevant areas occurs is by holding highly visible, interactive sessions on Asian philosophy at the American Philosophical Association's three

annual divisional meetings. Potential authors should follow the submission guidelines below:

i) Please submit essays electronically to the editor(s). Articles submitted to the newsletter should be limited to ten double-spaced pages and must follow the APA submission guidelines.

ii) All manuscripts should be prepared for anonymous review. Each submission shall be sent to two referees. Reports will be shared with authors. References should follow *The Chicago Manual Style*.

iii) If the paper is accepted, each author is required to sign a copyright transfer form, available on the APA website, prior to publication.

2) **Book reviews and reviewers**: If you have published a book that you consider appropriate for review in the newsletter, please ask your publisher to send the editor(s) a copy of your book. Each call for papers may also include a list of books for possible review. To volunteer to review books (or some specific book), kindly send the editor(s) a CV and letter of interest mentioning your areas of research and teaching.

3) **Where to send papers/reviews**: Please send all articles, comments, reviews, suggestions, books, and other communications to the editor: Prasanta Bandyopadhyay (psb@montana.edu).

4) **Submission deadlines**: Submissions for spring issues are due by the preceding November 1, and submissions for fall issues are due by the preceding February 1.

5) **Guest editorship:** It is possible that one or more members of the Committee on Asian and Asian American Philosophers and Philosophies could act as guest editors for one of the issues of the newsletter depending on their expertise in the field. To produce a high-quality newsletter, one of the co-editors could even come from outside teh members of the committee depending on his/her area of research interest.

BUDDHISM

Locating Early Buddhist Logic in Pāli Literature

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I

In the Indian tradition, the discussion on Logic may be viewed from two different perspectives viz. one of epistemology and the other of debate or *vāda*. Except for one school, almost all schools of thinkers accepted inference as a means of cognition. Inference is that form of knowledge where on the basis of known fact(s) one can derive knowledge of an unperceived object. To explain how such knowledge is possible and also how such knowledge can be intimated to others, it became necessary to formulate them in the form of arguments. It is in the context of such argument formulation and also for testing its validity that Indian logic was developed. But this was a later development; initially, logic was mainly for the purpose of debate. In the Vedic period, the sole purpose of all discourse was to obtain from the preceptor—the *guru*—the truth that was revealed to him. So the tradition was an oral one, and the knowledge was transmitted from the preceptor to the student; this process continued without being challenged by opponents.[1] Later on, from third century BCE and thereafter, different theories originated in the arena of philosophical thinking, each of which provided a new way of looking at reality. This led to various conflicts of opinions among different groups. Such situations gave rise to the necessity to develop tools of debate so that the opponent's position could be refuted and one's own position could be established. Consequently, in the initial stage of Indian tradition, logic was developed as a tool for debate.

In the early forms of Buddhist literature, which were mainly in Pāli language and were believed to be the records of Buddha's own words, not a single treatise could be found solely devoted to logic or containing a clear statement of any logical principle. From this, however, it cannot be assumed that what were discussed there were totally devoid of any rationalization and expressed only dogmatic attitude. On the contrary, in Pāli literature Buddha is represented as "a reasoned whose interlocutors are not his match; his weapons against them, beside his authority are analogy, simile, parable and an occasional trace of induction by simple enumeration of cases."[2] In order to emphasize such rational spirit of Lord Buddha, two facts may be cited: first, Buddha himself called his teachings *anitiha*,[3] meaning that they were not based on tradition (*na* + *iti* +*āha* = *anitiha*), but were justified ones. Secondly, as opposed to the dogmatic attitude popular in the age of Upanisads where everything was validated with reference to scriptures (*āgama*), Buddha admonished his followers on one occasion with the words: "Do not accept, Oh Bhikṣus, my words out of any respect for me, but accept them for what they are worth after proper scrutiny, just as a piece of gold is accepted by an expert after it is put to fire, cut or tested on the touchstone."[4] As such in the Pāli Tipiṭaka-s also, the question "what is the reason for that?" (*Tan kissa hetu*) precedes almost every sentence. This attitude of the early Buddhists to justify every assertion with adequate reason(s) and argument(s) led to the development of science of ratiocination or logic, with the objective of establishing one's own thesis and challenging the views of one's opponents.

Though Buddha felt the need to use reason(s) to establish any point, in course of teaching he could understand that all people, especially the people in the street and the learners, were not intelligent enough to follow the arguments trying to justify a particular theory. For them he had taken recourse to analogy, simile, parable, and sometimes induction by simple enumeration. A parable or a simile is not a logical argument, but it can exert a great impact on the mind and even on the intellect of the hearer. Even those who fail to grasp a point through argument

may be convinced of the same through similes. As such, in the early days of Pāli literature there is no systematic study of logical principles. However, titles of logical topics like *anumāna* or *vāda* can be found in the *Nikāya* texts. For example, in the *Majjhima Nikāya* of the *Sutta Piṭaka*, there is a chapter entitled the *Anumāna Sutta*, where the term *anumāna* is used in the sense of inference or guess;[5] and the title of another chapter is *Upālivāda Sutta*,[6] where the word *vāda* is used in the sense of discussion.

The necessity of discussing logic as the art of conducting a debate was felt as early as the third century BCE when the Buddhist followers started facing opposing ideas from opponents of different religious and ethical issues, e.g., "Is there a self over and above the body?" "Does this physical world exist?" "Is there a life after death?" As a consequence of such necessity, in the Buddhist literature from those days, discussions were found regarding several pertinent questions as "Are all discussions of the same nature?" "Can one argue with a king (or a person of higher authority) in the same manner as one argues with a friend or a like-minded person?" "What is the suitable place for discussion?" The noncanonical literature *Milindapañho* contains much discussion on these points. The canonical literature *Kathāvatthu* provides us with the analysis of the argumentation involved at the time of discussion/debate/dialogue. Another important text, *Ñettipakaraṇa*, which dates back to the First Buddhist Council, according to Western thinkers, also contains an elaborate analysis of the terms and expressions so that in course of dialogues and debates no kind of misconception can arise through such terms. These texts thus deal with the logic involved in debate. The main point that is highlighted in all of these texts is that opponents are to be handled not by force (*bala*) or other means but through valid argumentation. This necessitated that all parties involved in a debate should have their arguments properly constructed and justified.

II

A dialogue which is properly formulated following the prescribed method of the *Kathāvatthu* is called a *vādayutti*.[7] The goal of a *vādayutti* is thorough examination (*yutti*; Skt. *yukti*) of a controversial point presented in the form of a dialogue (*vāda*) between two parties. The dialogue is highly structured and is to be conducted in accordance with a prescribed format of argumentation. There, a given point or a position is at issue, for example, whether "a person is known in the sense of a real and ultimate fact" (i.e., whether persons are conceived of as metaphysically irreducible), whether there are such things as ethically good and bad actions, etc. In general, such issue may be stated to be of the form "Is A B?"

A dialogue by itself consists of sub-dialogies or "openings" (*aṭṭhamukha*). These correspond to eight attitudes which are possible to adopt with regard to the point at issue. For any position the eight openings are:

[1] Is A B?

[2] Is A not B?

[3] Is A B everywhere?

[4] Is A B always?

[5] Is A B in everything?

[6] Is A not B everywhere?

[7] Is A not B always?

[8] Is A not B in everything?[8]

Each such "opening" proceeds as an independent dialogue, and each is divided into five stages: the way forward (*anuloma*), the way back (*paṭikamma*), the refutation (*niggaha*), the application (*upanayana*), and the conclusion (*niggamana*).[9] In the way forward, the proponent solicits from the respondent the endorsement of a thesis and then tries to argue against it. In the way back, the respondent turns the table, soliciting from the proponent the endorsement of the counter-thesis, and then trying to argue against *it*. In the refutation, the respondent, continuing, seeks to refute the argument that the proponent had advanced against the thesis. The application and conclusion repeat and reaffirm that the proponent's argument against the respondent's thesis is unsound, while the respondent's argument against the proponent's counter-thesis is sound.

In the text *Kathāvatthu* there is discussion of nearly two hundred issues relating to various topics, mostly on metaphysical and moral matters. Of them, we will select one to demonstrate how the Buddhist thinkers thought of the different steps involved in the process of debate to refute the views of the opponents. The issue chosen here is the first controversial topic regarding the existence of the soul. This is a controversy between the Theravādins and the Puggalavādins. The Theravādins do not admit the existence of any self/soul as a real and ultimate fact, which is, however, admitted by the Puggalavādins.

In the first step[10] of the five-step debate, the proponent, the Theravādin, asks the respondent, namely, the Puggalavādins, to state his position, and the proponent offers arguments to show the inconsistency in the respondent's view.

Proponent [Theravādin]: Is the soul known as a real and ultimate fact?

Respondent [Puggalavādin]: Yes.

Theravādin: Is the soul known in the same way as a real and ultimate fact is known?

Puggalavādin: No, that cannot be said.

Theravādin: Your view stands refuted.

This argument may be explicitly reconstructed in the following way:

6. The soul is known as a real and ultimate fact.

7. If the soul is known as a real and ultimate fact, then the soul is known in the same way as other real and ultimate facts are known.

8. (The Puggalavādins assert that) the soul is known as a real and ultimate fact, but it is not the case that the soul is known in the same way as other real and ultimate facts are known.

9. If the latter statement cannot be accepted (that is, if it is not the case that the soul is known in the same way as other real and ultimate facts are known) then the former (that is, the soul is not known as a real and ultimate fact) should not be admitted either.

10. In affirming the former but denying the latter, the Theravādin's view cannot be accepted.

If "the soul" is taken as "A," "known as real and ultimate fact" as "B," "known in the same way as other real and ultimate facts are known" as "C," then the structure of the argument becomes evident:

1. A is B.

2. If (A is B) then (A is C).

3. (A is B) but not (A is C).

4. If not (A is C) then not (A is B).

5. Not (A is B).

In the second step of the five-part argument, the positions of the proponent and the respondent are interchanged—that is, the respondent or the Puggalavādin becomes the proponent and the Theravādin the respondent. The argument runs thus:

1. Puggalavādin: Is the soul not known as a real and ultimate fact?

2. Theravādin: No, it is not known.

3. Puggalavādin: If the soul is not known as a real and ultimate fact, then you should also say that the soul is not known in the same way as other real and ultimate facts are known.

4. If the latter statement cannot be admitted, that is, if it cannot be said that the soul is known in the same way as other real and ultimate facts are known, then it cannot be said that the soul is known as a real and ultimate fact.

5. Therefore, in affirming the former while denying the latter, the Theravādin's view is wrong.

To present the argument formally, the Thervādin holds that

1. (A is not B) but it is not the case that (A is not C).

2. Now, if (A is not B) then (A is not C).

3. A is not C.

4. Therefore, it is not the case that ((A is not B) and not (A is not C)).

In the third step, which is known as the refutation, the respondent reasserts the refutation (*niggaha*), and the respondent reasserts the refutation used in step 2:

1. Puggalavādin: If it is assumed that we should affirm that the soul is not known as a real and ultimate fact, but should not affirm the fact that the soul is not known in the same way as other real and ultimate facts are known, then you who have asserted the very proposition contained in the negative question must be refuted in the following manner.

2. If the soul is not known as a real and ultimate fact, then you should have said that the soul is not known in the same way as other real and ultimate facts are known.

3. What you affirm is false, namely, that the former statement can be affirmed but that the latter should not be affirmed.

4. If the latter statement is not affirmed, then neither can the former be affirmed truly.

5. So what you say is wrong.

In the fourth step, known as the *upanayana*, the respondent rejects the proponent's counter-argument found in step 1:

1. Puggalavādin: If this refutation is faulty, then look at the parallel procedure in your own argument against us. Thus, according to us, "A is B" was true but "A is C" was not true. We, who have admitted these propositions, do not consider ourselves to be refuted, although you thought you have refuted us.

2. According to you, if we affirmed that "A is B," we have to affirm that "A is C."

3. Our position is that "A is B," but it is not the case that "A is C" (which is contrary to your point).

4. According to you, if we do not admit the truth of "A is C," neither could we admit the truth of "A is B."

5. Hence, according to you, we were wrong in admitting "A is B" while denying "A is C."

In the fifth step, the respondent claims that the counterargument of the proponent has failed and his own counter-argument is successful.

Puggalavādin: No, we cannot be refuted thus:

1. Namely, that our proposition "A is B" compels us to accept the proposition "A is C."

2. It also is not correct to say that my proposition "A is B" is coupled with the rejection of "A is C."

3. It also is not correct to hold that if one rejects "A is C," then one must also reject "A is B."

4. One can affirm both or neither.

5. Hence, the refutation made by the Theravādins against us is not proper.

This completes the five steps of the first opening (*aṭṭamukha*) in the primary debate. To sum up, the five steps involved are as follows:

1. The way forward: the *anuloma*, where the respondent states his own position and the proponent presents a counter-argument.

2. The way back: the *paṭikamma*, where the proponent states his own position and the respondent presents the counter-argument.

3. The refutation: the *niggaha*, where the respondent asserts the refutation of the proponent's position.

4. The application: the *upanayana*, where the respondent rejects the counter-argument of the proponent.

5. The conclusion: the *niggamana*, where the respondent claims that the proponent's counter-argument has failed and the refutation has been successful.

The same five steps are used in each of the eight openings of a primary debate. In addition to the primary debate, there are also secondary debates, which are formulated to examine the terms used in the primary debate. For example, as part of the primary debate between the Puggalavādins and the Theravādin on knowledge of the soul, the secondary debate centers around issues like whether or not the soul is the same as the body, feelings, perception, etc. Both the primary and secondary debates logically follow the five-step argument discussed above. The structure of the argument generally followed may be presented in the following form:

If (A is B), then (C is D).

But it is not the case that (C is D).

Therefore, it is not the case that (A is B).

It is significant to note that there is here no *pro-argumentation*, either by the respondent for the thesis or by the proponent for the counter-thesis. There is only *contra-argumentation*, and that in two varieties. The respondent, in the "way back," supplies an argument against the proponent's counter-thesis, and in the refutation stage, against the proponent's alleged argument against the thesis. So we see here a sharp distinction between three types of argumentation—*pro* argumentation, argumentation that adduces reasons in support of one's thesis, and *counter* argumentation—argumentation that adduces reasons against counter-arguments directed against one's thesis. The respondent, having been "attacked" in the first phase, "counter-attacks" in the second phase, "defends" against the initial attack in the third, and "consolidates" the counter-attack and the defense in the fourth and fifth. The whole pattern of argumentation, it would seem, is best thought of as an attempt to switch a burden of proof that is initially evenly distributed between the two parties. The respondent tries to put the burden of proof firmly onto the proponent by arguing against the proponent and at the same time countering any argument against himself. Thus, a counter-argument has three components: the initial thesis or *ṭhapanā* (Skt. *sthāpanā*), the derived implication or *pāpanā*, and the demonstration of inconsistency or *ropanā*.

The method as exhibited above is called the *anuloma*, or the direct method, where the refutation of the opponent's position is shown to follow directly from his assertion. In addition to this direct method, the indirect method, known as *paṭiloma*, is also applied in a debate situation. The structure of such *paṭiloma* or indirect form of argumentation may be stated thus:

If D is denied of C, then B should be denied of A.

But, in the first step, B is affirmed of A.

Therefore, it is wrong that B can be affirmed of A, but not D of C.

In both the *anuloma* and *paṭiloma* varieties, the logical rules that are applied are actually the Modus Ponens, the Modus Tollens, the Transposition, and the definition of implication, namely, that $(P \rightarrow Q) \equiv \backsim (P \,\&\, \sim Q)$. However, the worth of the *Kathāvatthu* does not lie in the matter as to how many rules of propositional logic are applied here but on the fact as to how an argument should properly proceed in the context of a debate. In the example of the five-step debate between the Theravādin and the Puggalavādin as to whether the self can be regarded as real and ultimate, it is interesting to note that the debate starts with the Theravādin's argument but ends with the Puggalavādin's refutation. The debate as presented in the *Kathāvatthu* shows that what is important is the pattern of the debate rather than the content of the debate. Professor Jonardon Ganeri has rightly observed that "In setting out the reasoning in this way, the intention of the author of the *Kathāvatthu* is not to imply that precisely this sequence of arguments is sound. What is being shown is the form that any counterargument should take. It is a description, in generic terms, of the strategic resources open to the proponent and serves rather as a blue-print for any actual *vādayutti* dialogue."[11]

III

The text *Milindapañho*, belonging to a later period, is a very good example of a Pāli text where seeds of logical reasoning can be found in a clearer form along with discussion on debate. The text is presented in the form of a dialogue between the Greek king Menander, who ruled over the Punjab in 150 BCE, and the Buddhist monk

Nāgasena. As such, it is quite natural that here we have some clear idea about the methodology, place (where), and the (whom) persons with whom discussion or dialogue can be made. In the introductory part of the text, Nāgasena makes a clear distinction between two types of discussion/dialogue—one with a king (that is, one which is done under pressure or with some tension in mind) and the other with the learned (that is, where one is free to express one's own opinion). Nāgasena points out that in the context of the first type of discussion, the king starts with a particular thesis or presupposition in mind. And anyone who says anything that goes against that thesis, and as such is contrary to the belief or understanding of the king, has to face penalty. As such, in anticipation of such penalty, one cannot expect to have free and proper discussion. On the other hand, when there is discussion with the wise, there is found unrolling and rolling up, convincing and conceding; agreements and disagreements are reached. And in all that, the wise suffer no disturbance.[12] The moral of this statement of Nāgasena is that proper dialogue can take place only when one is not under any pressure of facing unwanted consequence. With an undisturbed mind, one can freely be involved in expressing one's own opinion or refuting others.

Nāgasena also pointed out that all places are not proper for having discussion. He recommends that the following eight places are to be avoided for having any academic discussion: "uneven ground, spots unsafe by fear of men, windy places, hiding spots, sacred places, high roads, light bamboo bridges and public bathing places."[13] These places should be avoided because it will not be possible to have proper concentration, which, naturally, will create problems in discussion. For example, on uneven ground the matter discussed becomes jerky and diffuse and so often concentration gets broken. In unsafe places the mind is disturbed, and being disturbed cannot follow the point raised by the opponent. In hiding places there are eavesdroppers. In sacred places the question discussed gets diverted because of the seriousness in the surroundings. On a high road, because of the presence of lots of traffic, discussion often gets interrupted. On light bamboo bridges and public bathing places, because of other people's presence, serious discussion cannot take place. These places are such that they are either very congested or they are insecure, and as such, there are chances of distraction or disturbance in the course of discussion.

Nāgasena thinks that not only place but also persons participating in discussion are important for the success of discussion. He suggests that eight types of persons are to be avoided; one should not be involved in discussion with such persons. These persons are (1) one whose mind is filled with lust, (2) one whose mind is filled with hatred, (3) one who is in delusion, (4) one who is proud, (5) one who is greedy, (6) one who is idle, (7) one who has a one-track mind and (8) one who is a fool.[14] These people, because of their defilements like attachment, greed, hatred, delusion, ignorance, etc., cannot think in a broad-minded way. Their mind follows one direction only, and they are not amenable to changes. Since such persons cannot accept the opinion of others, one cannot have a fruitful discussion or dialogue with such a person. Hence, discussion with such a person is to be avoided.

In the *Milindapañho* Nāgasena not only dealt with the nature of dialogue and its different aspects, he also actually was involved in dialogue with the king. In course of such dialogue he relied solely on that type of argument which is known in modern Western logic as argument by logical analogy. The general structure of the analogical argument is as follows:

a, b, c, d all have the attributes P and Q.

a, b, c all have attribute R

Therefore, d probably has the attribute R.

Arguments having such form are scattered throughout the text. Let us consider one such argument. The proposition under consideration is "Individuals differ from each other in respect of difference of their past *karma*s." To establish this point, Nāgasena argues that trees differ from each other—some produce sweet fruits, some sour, some bitter, etc.[15] Their differences are due to the differences in seed which give rise to the trees. Individuals also are born because of their past *karma*s. So the differences of individuals can be accounted for by the difference of their past *karma*.[16]

1. Trees and individuals are similar because both of them are born out of some cause and both of them are of different types.

2. The difference of trees can be explained in terms of the difference of their causes.

Therefore, the difference of individuals can be explained in terms of the difference of their causes, namely, the past actions of the individuals.

Another important topic of logical discussion—namely, dilemma—is dealt with in the *Milindapañho*. Examples of dilemma can be found in the *Mendakapraśna* section. Let us first note what a dilemma is in modern logic. We say, somewhat loosely, that a person is "in" dilemma (or "put on the horns of a dilemma") when that person has to choose between two alternatives, both of which are bad or unpleasant. The dilemma is a form of argument intended to put one's opponent in just that kind of position. In debate, one uses a dilemma to offer alternative positions to one's adversary, from which a choice has to be made, and then to prove that no matter which choice is made, the adversary is committed to an unacceptable conclusion.[17] Let us deal with one such dilemma mentioned in the *Milindapañho*. The proposition at issue there is whether worship of Buddha is futile.[18] All the Buddhists consider Buddha to be an object of worship. However, this belief gives rise to a dilemma. The presupposition here is that when one worships and offers something to any Being, then that Being accepts it. From that acceptance, it is considered that the worship has been successful. Now, with such a background assumption, it is shown that worshipping Buddha by the Buddhists is futile. The argument proceeds thus:

1. If Buddha accepts the offerings given to him at the time of worship, then he has not been able to attain *parinirvāṇa*, since he must be present somewhere in this world to accept the offerings.

2. If he is present somewhere is this world and has not attained *parinirvāṇa*, he is like other ordinary human beings.

3. If he is like other human beings, then there is no sense in worshipping him, for we do not worship ordinary human beings.

So the consequence is that the worship of Buddha is futile.

On the other hand,

4. If Buddha has attained *parinirvāṇa*, he is not in any way related to this world, and he cannot accept anything.

5. To offer something to a being who does not accept anything is useless.

6. So if Buddha does not accept the offerings given to him at the time of worship, it is useless to worship Buddha.

7. Hence, it is futile to worship Buddha.

This argument is a clear example of a constructive dilemma, which places the opponent in between two horns. Each horn ultimately leads him to a situation that is opposed to his basic assumption. If we try to provide a logical structure of this argument, it will be of this form.

Hypothesis: A

1. If P, then ~ A, and if ~ P, then ~ A.

2. P or ~ P.

Therefore, ~ A.

That is, the hypothesis gets disconfirmed.

IV

Generally, in any debate situation, the whole process of argumentation and counter-argumentation starts with a question. In the case of the Buddhists, the questions generally are like Is the self real? Does the Tathāgata exist after *parinirvāṇa*? etc. The content of the question as well as its formulation play significant roles in proceeding with the debate. For in any rational dialogue, there is a natural expectation among the participants that a direct answer will be given if one knows the answer and the question is an appropriate one. If one does not know the direct answer or cannot give it for some reason, one is obliged to be as informative as possible. Because of such expectation, the question that is addressed in a debate or in a rational dialogue has as its basic objective collection of information in the mode of replies. Hence, if the question is found to be insignificant or not to be appropriate in that situation, there will be no reason for answering it or for providing any argument against it. Thus, formulation of question is an important factor. In the early Buddhist literature, discussion on the nature of questions and their formulation has also been considered to be very important. In the *Anguttara Nikāya*, Buddha himself tells the monks that there are four ways of answering questions. These are "(1) There is a question to be answered categorically; (2) there is a question to be answered after making a distinction; (3) there is a question to be answered with a counter question and (4) there is a question to be set aside. These are the four ways of answering questions

> One kind is given a categorical answer,
> Another is answered after making a distinction;
> To the third, one should raise a counter-question
> But the fourth should be set aside.[19]

In the *Sangīti Sutta* of the *Dīgha Nikāya*,[20] four types of questions are also distinguished:

1. *pañhā ekaṁsavyākaraṇīya*, i.e., questions which can be answered categorically.[21] For example, Is the eye impermanent? This question can be answered categorically with an affirmative answer, namely, yes, the eye is impermanent.

2. *pañhā vibhajjavyākaraṇīya*, i.e., questions which ought to be explained analytically and then answered. For example, Is the impermanent the eye? This question cannot be answered in terms of yes or no but can be answered by saying "Not only the eye, the ear, nose, etc. are all impermanent."

3. *pañhā paṭipuchavyākaraṇīya*, i.e., questions which ought to be answered by a counter-question. For example, if someone asks, "Does the eye have the same nature as the ear?" it can be answered by first asking in what respect is this "sameness" talked about? If it is said that this sameness is in respect of seeing, the answer is no; but if it is replied that the sameness is thought of in respect of impermanence, the answer will be yes. This indicates that this third variety of question can be answered only when the counter-question is answered properly.

4. *pañhā ṭhapaṇīyo*, i.e., questions which should be set aside. For example, Will the Tathāgata live after death or not? Buddhaghoṣa, in his commentary on the *Anguttara Nikāya* (*Anguttara Nikāya Aṭṭhakathā*), regards a *ṭhāpaṇīyo pañha* to be one which ought not to be explained and which ought to be set aside on the grounds that it was not explained by the Exalted One (*avyākatam etam Bhagavatā ti ṭhapetabbo, eso pañho na vattabbo*).

A look at these four varieties of questions indicates they can be broadly classified under two heads—those which can be answered categorically in the form of true or false statements, and those which cannot be so answered and hence need to be set aside. The other two—namely, the second and the third varieties—can also be answered affirmatively or negatively as the case may be, though such answer may require some prior clarification and analysis. The fourth variety of question—namely, the *ṭhapaṇīya* variety—has interested scholars, for everyone is curious to know the criteria by which such questions are to be set

aside. One possible answer is given by Buddhaghoṣa when he holds that these questions are to be set aside for the Exalted One has set them aside. Such answer, that since Buddha himself had not dealt with these questions they are not to be discussed, implies accepting Buddha as an authority and to follow his actions without any reason, which would go against the rationalistic spirit of Buddha himself. Accordingly, modern scholars like V. K. Bharadwaja have identified two different criteria—one pragmatic and the other logical—for the *ṭhapanīya* variety of questions. The pragmatic criterion was discussed by Jayatilleke also when he pointed out that such questions are to be set aside on the pragmatic grounds that any answer to them is irrelevant and does not serve any purpose. To justify his point, he mentions the famous parable of the arrow. The moral that the Buddhists want to point out with the parable of the arrow is that when an individual is stuck by an arrow, what is urgent at that moment is to give medical treatment and not to ponder over the question of who shot the arrow. This question is not such that it cannot be asked or answered. It can well be asked in situations like a shooting competition where one of the participants hit the center but he could not be identified. There, if the question is asked, "who shot the arrow?" it is very much relevant. But in the situation when medical treatment is of prime importance, the question is irrelevant and needs to be set aside. Bharadwaja thinks that the other criterion—namely, the logical one—is much more important. For with this criterion the meaninglessness of these questions can be shown in two ways—either by showing that they do not satisfy the logic of meaningful syntax, or it can be shown alternatively by pointing out that "it is conceptually impossible for us within a given conceptual framework to assign truth values, true or false, to any answer given to it."[22] Let us try to illustrate this point. For example, if it is asked, "In which direction does the fire in front of you go when it is blown out?" it cannot be answered meaningfully because it is based on a conceptual confusion between two categories: "the fire in front of you" and the physical act of going. The physical act of going is appropriate (i.e., can meaningfully be applied) to an animate conscious agent and not to any inanimate object like fire. So, though the question has a structure similar to "where does an individual go when he is ill?" the latter is meaningful, but not the first one. The meaninglessness of the first question is not due to its being unable to satisfy any grammatical/syntactical form but because of its violation of the rules of mapping different concepts. Let us consider another question: Does the Tathāgata exist after death? This question falls within the list of those which Buddha himself did not answer and, as such, is regarded as an *avyakata* or question to be set aside. This question is not like the one mentioned earlier, for it is grammatically well formulated, satisfying the criterion of syntax. It also does not commit any category mistake as does the question "Is Tajmahal kind to all the visitors?" Still, it is regarded to be a *ṭhapanīya* question—a question to be set aside—because it involves logical and conceptual confusion. This question might be answered in any of four possible ways: 1) The Tathāgata both exists after death, 2) the Tathāgata does not exist after death, 3) the Tathāgata both exists and does not exist after death, 4) the Tathāgata neither exists nor does not exist after death. But as Tathāgata has been conceived in Buddhist philosophy, it is not possible to accept any of these answers as true, since none of them "fits the case" (*upeti*).[23]

In addition to the four varieties of questions, the Buddhists admit a fifth variety, which they regard as "inappropriate" (*na kalla*). Like the *ṭhapanīya* variety, these questions are also to be set aside, but here the reason for such rejection is that they are literally meaningless. For example, questions like "What is death and decay?" "To whom does this decay and death belong?" and "Who feeds on the food of consciousness?"[24] are examples of the inappropriate (*na kalla pañha*) variety of questions. The first question assumes that death and decay is one thing, while the second question assumes that they are the attributes of someone. Thus, they imply that there is a difference between the two—the subject possessing the attributes and the attributes themselves, which is not a representation of what is really the case. Accordingly, these questions are regarded to be inappropriate. Similarly, in the case of the third question, the existence of an agent (a person who is taking the food) over and above the act of eating (āhārakriyā) is assumed, which also is contrary to the fact, according to the Buddhist conceptual scheme.[25]

It may be argued that if the inappropriate questions (*na kalla pañhā*) and the queries that are set aside (*ṭhapanīyo*) are both unanswerable, then why do we not include them under one head and consider the variety of questions to be four only? In reply, it may be said that in the context of improper questions, answers can be categorically given, though it may be that all the possible four logical alternatives are false, whereas in the case of the inappropriate variety, no categorical answer is possible. In the Nikāya texts the two varieties of questions are distinguished by pointing out that in the *ṭhapanīya* variety, the answer is given by saying *mā h' evam* (do not say so) while in the *na kalla* variety, the answer is straightforward in the form *na h' idam* (the case is not so) with regard to all the four logical alternatives.[26] Since where the case is not so, it can be said that "do not say so," all varieties of *na kalla* questions can be included within or can be a subset of the class of *ṭhapanīyo* questions, but to show that they are to be set aside on the grounds of being misleading, the two varieties are distinguished.

In brief, the early Buddhist thinkers realized that it is very important to conduct debate using a proper formulation of questioning. If the question itself is such that it is inappropriate, improper, and does not admit of any logically possible answer, it is futile to argue with it. Only if the question is such that it can be categorically answered is it possible to deal with it. So the proper formulation of the question itself is essential in the arena of logic. In the Buddhist analysis of questions, we can have a shadow of what thinkers like Strawson, Carnap, and others had noticed in Western logic in the twentieth century. Strawson has noted that questions like "Are all John's children asleep?" cannot be answered categorically in terms of truth or falsity in a situation where John has no children. The Logical Positivists also rejected metaphysics on the ground that the questions that are dealt with in metaphysics are inappropriate or meaningless. Thus the rational inquiry on questions done by the early Buddhist thinkers may be said to be very modern in the development of logic.

V

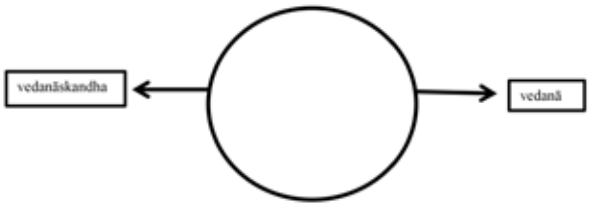
Another important logical concept—namely, that of distribution of terms—can be found in Pāli Buddhist texts. In the text *Yamaka* (translated as "A Book of Pairs"), which forms the sixth book of the *Abhidhamma Piṭaka*, there is an investigation into the ultimate *dhamma*-s. In course of analysis of such *dhamma*-s, it has been pointed out that there are many pairs of expressions, A and B, where though it can be truly said that A is B, the terms cannot be interchanged to make the other statement, B is A, also true. For example, in course of discussion on the aggregates (*skandhas*, *kkhandhas* in Pāli), it has been shown that *rūpa* (form) and *rūpaskandha* (the aggregate of form) are not interchangeable, though *vedanā* (feeling) and *vedanāskandha* (the aggregate of feeling) are interchangeable. As reason for that it has been stated that there are many forms (*rūpas*), like my favorite one (*piya rūpam*), or attractive form (*sātā rūpam*), etc., which are forms, but they are not regarded as *rūpaskandha*, though it is no doubt true that the *rūpaskandha* belongs to the class of *rūpa* and the aggregate of form.[27] Though not explicitly stated in terms of set-subset relationship, this passage may be interpreted in that light—the class of *rūpa-skandha* is included in the class of *rūpa*/form, and in that sense the *rūpaskandha* can be regarded to be a proper subset of *rūpa*. It is because of this relation of "being a proper subset of" that we cannot have correct interchange of terms leading to improper conversion. On the other hand, there are terms that have the same sort of extension and, hence, one cannot be the subset of another, but rather becomes identical with the other. In the context of such terms, it is possible to interchange the subject and the predicate terms in one proposition into another and get a new one which is identical to the other. For example, in the case of "feeling" (*vedanā*) and the aggregate of feeling (*vedanā skandha*), it can be seen that there is no feeling apart from what is stated in the aggregate of feeling, nor can there be any aggregate of feeling over and above the feeling. In the terminology of set theory, it can be said that the class of feeling and the class corresponding to the aggregate of feeling are one and the same, and so it is possible to say that "All feelings are aggregate of feeling" and "All aggregate of feelings are feelings."[28] That is, in such cases the interchange does not involve any problem. So discussion of questions containing such pairs of terms and their replies indicates that in Pāli Buddhist literature the idea as to whether a term covers all the members of the class it denotes or some of them or none[29] was present.

It may be noted here that in the *Kathāvatthu*, there is a section called *vacanasodhana*, which Aung has translated as "To clear the Meaning of the terms." In this section such questions are discussed like "Is the self known?" (*puggalo upalabbhati, upalabbhati puggaleti*) "Is the self a reality?" (*puggalo saccikaṭṭho*), "Is the self existent?" (*puggalo vijjamāno*) "Is the person something that exists?" (*puggalo saṃvijjamāno*). The answer to each of the questions is given in the form "A is B." In the context of each of them, it has been shown that though "A is B" is true, it cannot be said conversely that "B is A" is always true, for it is the case that some B is A, though there are some B which are not A. This is because of the fact that extension of B is much wider than A. So all members of A are included in B, but not all members of B are members of A. For example, in the context of the first question, when it is asked, "Is the self known?" the reply would be "The self is known"; but it cannot be said that whatever is known is the self. Among those which are known, some are the self, but some are not the self (*puggalo upalabbhati, upalabbhati kehici puggalo kehici na puggaloti*).

On the basis of the discussions found in the *Yamaka* and in the *Kathāvatthu* regarding interchangeability of two terms in some cases and not in all, there has been a controversy among the Buddhist scholars on the issue as to whether the notion of conversion was well known in the early days of Buddhism. Mrs. Rhys Davids upheld the idea that "the world probably contains no other such study in the applied logic of conversion as the *Yamaka*" (p. xvi).[30] This position was supported by Keith, who argued that "in the Yamaka . . . the distribution of terms is known and the process of conversion is elaborately illustrated, but without a trace of appreciation of logical theory." This position of Rhys Davids and Keith has been opposed by Jaytilleke on the grounds that conversion as is used in traditional Western Logic is the process that permits to obtain a particular affirmative proposition (I) from a universal affirmative proposition A, and not a universal affirmative proposition or A from its corresponding A proposition. In the *Yamaka* in some cases (as has been shown above in the example of *vedanā* and *vedanāskandha*), it has been shown that in the case of a universal affirmative proposition it is possible to interchange the subject and predicate terms and obtain another equivalent universal affirmative proposition. This fact is a gross violation of the logical law of conversion. Hence, it cannot be held that the text *Yamaka* becomes evidence of the law of conversion.

This controversy as to whether the notion of conversion was prevalent in the early days of Buddhism may not be very important. But what is most important in the analysis of *Yamaka* and *Kathāvatthu* is that here the extension of terms has been taken into account. Each term refers to objects which actually define the scope of the term, thus making the term meaningful. For example, the term *rūpa* stands for all physical properties—like color, shape, size, etc.—the term "feeling" or *vedanā* refers to different feelings—feelings of pleasure, pain, indifference, fear, grief, etc. The scope actually defines the applicability of the term—one term may have wider scope than another. For example, the scope of the term "living being" is wider than the scope of the term "human being," since living beings include not only humans but also nonhumans like animals, birds, trees, fishes, etc. Looked at from the standpoint of scope, it is easier to realize the questions and answers that are put forward in the *Kathāvatthu* that *puggalo atthi, atthi na sabbo puggaleti* or *puggalo saṁvijjamāno, saṁvijjamāno puggaleti*, etc. ("self exists, but whatever exists is not self," "being is real, but is anything real a being?"). We can easily express the idea contained here with a Venn diagram:

Once the scope of each term is clearly spelled out, the argument of the *Kathāvatthu* that "all *pudgala*-s are *saṁvijjamāna*" but not all "*saṁvijjamāna*s are *pudgala*-s" becomes evident without bringing in the notion of conversion. The same argument is applicable in the case of the *Yamaka* when it is pointed out that the aggregate of form (*rūpakkhandha*) is a *rūpa* (in the sense that it has a form), but there are many *rūpa*s (forms) like attractive color (*piyarūpam*), or favorable form (*sātarūpam*), etc., that are not any aggregate. This indicates that the scope of *rūpa* is much wider than the *rūpaskandha*. On the other hand, there can be no feeling that does not fall within the scope of the aggregate of feeling, nor does the aggregate of feeling have any scope other than that of feeling. Hence, the two terms "feeling" and "aggregate of feeling" have the same scope, and that is the reason for their being interchangeable. This can be understood clearly from the following figure:



This way of looking at the passages of *Kathāvatthu* and the *Yamaka* has another advantage. Let us once again look at the passage of the *Kathāvatthu*: *puggalo vijjamāno*, *vijjamāno puggaleti? Puggalo vijjamāno*, *vijjamāno kehici puggalo kehici na puggaloti/ puggalo kehici vijjamāno kehici na vijjamānoti? Na hevaṁ vattabbe . . . pe* (*Kathāvatthu*, §57). "Is matter[31] existent, is anything existent matter? Matter is existent, of the existent entities some are matter and some are not matter. (Is it also the case that) some matter is existent and some are not? No, that cannot be said."

This passage clearly indicates that the scope of matter is lower than the scope of existent entities, for it is said that all matters are existent entities, but there can be existent entities which are not matter. That is, here, three alternative possibilities are admitted:

i) All matters are existent

ii) Some existent entities are matter

iii) Some existent entities are not matter

These correspond respectively to the A, I, and O propositions of traditional Aristotelian logic. But since in the passage the possibility is not admitted that no matter is existent, E proposition is not admitted in the systems of *Kathāvatthu* and *Yamaka*. Although the alternative that "all matters are existent" is admitted, this passage denies the possibility that "some matters are existent." For the latter possibility presupposes that some matters are not existent, which the Buddhists will not accept. This means that the conversion of I proposition is not admitted here. So from what has been said in the *Kathāvatthu* and in the *Yamaka*, the conclusions that can be drawn from

1. All matters are existent.

   Therefore, some existent entities are matter

is valid.

2. Where A and B have the same scope,

   All A-s are B

   Therefore, all B-s are A

is valid.

3. Some existent entities are matter

   Therefore, some matters are existent entities

are not accepted as valid. Hence, it will not be justified to claim that the rule of conversion was well known during the early stages of Buddhist logic.

VI

While wrapping up our discussion, it may be noted that after the great demise (*mahāparinirvāṇa*) of Lord Buddha, different conflicts occurred among his followers. To settle such conflicts, different councils had to be organized—the first one immediately after the Buddha's demise, the second one a hundred years after that, the third one during the time of Ashoka, and the fourth one at the time of Kaniṣka. During the second Buddhist council, there arose the two schools of Buddhism—the *Sthaviravādin*s and the *Mahāsāṃghika*s. Though both schools agreed in respect to metaphysical issues, they differed in respect to whether the monastic rules should be followed strictly or liberally. However, in the gap between the second and third Buddhist Councils, which was more than two hundred years, the Buddhists were split into several schools and sub-schools, and the issue among them was not only in terms of rule following but also in respect to metaphysics and ontology. The difference of views held by these schools was so great that it became difficult to regard any one of them as "the" Buddhist view. As such, during the reign of King Ashoka, the third Buddhist council was organized under his patronage and under the leadership of Moggaliputta Tissa to settle which among them depicted the true spirit of Buddha. It was at the time of this third Buddhist council that the *Abhidhamma Piṭaka* was compiled, and the story goes that Moggaliputta Tissa himself, during the period of this council, composed the text *Kathāvatthu*, within a few weeks' time. From this historical fact, it can be said that it is from the third century BCE, that need was felt by the orthodox Buddhist thinkers (the Theravādins) to defend the original teachings of the Buddha against the theories proposed not only by the non-Buddhist thinkers but also by other schools of Buddhism. For this purpose, they had to formulate rules for debate. So it is from the time of the third Buddhist council that we find the rise and development of the debate or *Vāda* tradition. Earlier, during the time of the Buddha, what was required was to make ordinary people aware of the truths of life, namely, that the world was full of suffering, everything is momentary, objects in the world do not have any essence of their own etc. To this end, the teachers used analogies

or similes and parables. Thus, in the early stage of Buddhist philosophy, two different objectives were visible—one to convince people, and the other to establish their own views against others. Accordingly, two different approaches to philosophy had been adopted, and they constituted the basics of Buddhist Logic, which later flourished in a full-fledged discourse in the hands of thinkers like Nāgārjuna, Vasubandhu, Dignāga, Dharmakīrti, and others. Though in a very germicidal form, the logical elements in the Pāli literature provide us glimpses of some very important issues, like significance of questions, extension of terms, dilemma, notion of implication, notion of contradiction, etc., with respect of rational discussion, and the ways these issues have been addressed are comparable to modern-day logical approaches. Herein lies the importance of the logical elements found in Pāli literature.

ACKNOWLEDGMENTS

The author expresses her gratitude to Amita Chattejee and Prasanta S. Bandyopadhyay for their suggestions and encouragement in writing this paper. Thanks are also due to the anonymous referee for useful observations and comments that have led to the qualitative improvement of the paper.

NOTES

1. In the Upaniṣads the method that has been followed is in the form of dialogue where as an answer to a particular question some discussion is made. This dialogue used to take place in order to explain a point or for the purpose of clarification. As such *vāda* or a theory of debate is normally not found in the Upaniṣadic texts.
2. Keith, *Buddhist Philosophy*, 303, quoted by Durgacharan Chatopadhyaya, in "Buddhist Logic: An Introductory Survey," An Analytic View of Buddhist Logic (Bauddha –nyāya – vīkṣā), compiled by Suniti Kumar Pathak, p.16
3. Sutta Nipāta, 1053.
4. *Tāpāccedācca nikaṣāt suvarṇam ivapaṇḍitaiḥ | Parīkṣyā bhikṣava grāhyam madvaco na tu gauravat || Tattvaṣaṃgraha Kārikā*, 3588.
5. "A person with evil wishes and dominated by evil wishes is displeasing and disagreeable to me. If I were to have evil wishes and be dominated by evil wishes, I would be displeasing and disagreeable to others. Therefore, I shall not have evil wishes and be dominated by evil wishes'" (*Majjhima Nikāya, Anumāna Sutta*, 15). This example from which the Sutta gets its name shows that here the Bhikkhu takes the determination of not having evil wishes or be dominated by evil wishes on the assumption that "If . . . so and so, then . . . so and so." He also furnishes a universally quantifies premise, namely, "A person with evil wishes . . ." and then finds that his case would be included within the scope of the antecedent and then he will have to face the consequence which is not quite favourable to him. So, though not properly formulated, this passage gives us a very rough idea as to how one thought can proceed on the basis of another.
6. "Householder, if you will *debate* on the basis of truth, we might have some conversation" (*Majjhima Nikāya*, *Upāli Sutta*, 56). Here Upāli is not trying to infer something but wants to have some discussion or debate in order to show the householder the Four Noble truths which Buddha had realized. Whatever may be the content, this passage clearly indicates that even in the early stage, the Buddhists felt that the modes of debate, discussion are important for convincing someone rather than giving instructions.
7. Jonardon Ganeri, "Argumentation, Dialogue and the Kathāvatthu," *Journal of Indian Philosophy* 29 (2001): 486.
8. The alternatives 3–8, actually display quantification over 1 and 2 in respect of time, place and object. Explicit statement of such possibilities highlight the minute observations of the Buddhist thinkers regarding the fact that something B may be partially true of a thing A, but may not be true of A always or everywhere. This observation becomes clearer in the *vacanasodhana* section of the same text *Kathāvatthu*.
9. The names of the last two steps—namely, *upanayana* and *niggamana*—sound very similar to the last two steps of the five-stepped inference admitted by the Naiyāyikas, the five steps being *pratijñā*, *hetu*, *udāharaṇa*, *upanaya*, and *nigamana*. However, this similarity is only apparent existing in the verbal level merely and there is no substantial similarity between them. The *upanaya* of the Naiyāyikas is the application of the universal statement to the case under consideration and *nigamana* is the repetition of the thesis to show that what was initially accepted as an assumption gets now established. However, in the Theravāda Buddhist literature, when there is mention of *upanayana* and *niggamana* in the context of a vāda, no such role is assigned.
10. For the details of the different steps, we have followed the analysis of G. V. Aston, *Early Indian Logic and the Question of Greek Influence*, an unpublished dissertation submitted for the Ph.D. degree at University of Canterbury, 2004, chapter 3, especially section 3.2.
11. Jonardon Ganeri, "Argumentation, Dialogue, and the *Kathāvatthu*," *Journal of Indian Philosophy* 29 (2001): 490.
12. *The Questions of King Milinda*, II.1.4.
13. *The Questions of King Milinda*, *Mendakapañho*, IV.1.4.
14. Ibid., IV.1.5.
15. "The Elder replied: 'Why is it that all vegetables are not alike, but some sour, and some salt, and some pungent, and some acid, and some astringent, and some sweet?

    'I fancy, Sir, it is because they come from different kinds of seeds.'

    'And just so, great king, are the differences you have mentioned among men to be explained. For it has been said by the Blessed One: 'Beings, O Brahmin, have each their own Karma, are inheritors of karma, belong to the tribe of their karma, . . . It is karma that divides them up into low and high and the like divisions'" (*Milindapañho*, III.4.2).
16. *Vimaticchedana Praśna*, section 1.
17. Copi,*Introduction to Logic*, 213.
18. "*Bhante Nāgasena, ime titthiyā evam bhaṇanti : 'Yadi Buddho pūjam sādiyati, na parinibbhuto Buddho, saṃyutto lokena, antobhaviko lokasmiṃ, lokasādhāraṇo, tasmā tassa kato adhikāro vañjho bhavati aphalo; yadi parinibbhuto, visaṃyutto lokena, nissato sabbabhavehi, tassa pūjā na uppajjati, parinibbuto na kiñci sādiyati, asādiyantassa kato adhikāro vañjho bhavati aphalo'-ti. Ubhatokoṭiko eso pañho. N' eso visayo appattamānasānam, mahantānaṃ yev' eso visayo. Bhind' etaṃ ditthijālaṃ, ekaṃse ṭhapaya/*" (*Milindapañho*, IV.1.10).
19. *Anguttara Nikāya*, ii, 46-47, pp. 432–33, ed. by Bhikkhu Bodhi.
20. *Dīgha Nikāya Sutta*, 33, iii, 230.
21. It may be regarded as a "yes-no-question" in Walton's language (cf. D. N. Walton, *Informal Logic*, 27).
22. Bharadwaja, "Rationality, Argumentation and Embarrassment: A Study of Four Logical Alternatives (*catuṣkoṭi*) in Buddhist Logic," 305.
23. Ibid.
24. *Ko nu kho … viññāṇāhāraṁ āhāreti …* Saṁyutta Nikāya, II.13.
25. *Katamaṃ jarāmaraṇaṃ kassa ca panidaṁ jarāmaraṇan ti iti vā…yo vadeyya aññaṁ jarāmaraṇaṁ aññassa ca panidaṁ jarāmaraṇaṁ ti vā … yo vadeyya, ubhayam etam ekattaṇ vyañjanan eva nāṇam*, Saṁyutta Nikāya II, 60, 61.
26. Jayatilleke, *Early Buddhist Theory of Knowledge*, 293.
27. *Rūpam rūpakkhandho ti? Piyarūpam sātarūpaṃ, na rūpakkhandho; rūpakkhandho rūpañ ca' eva rūpakkhandho ca … Rūpakkhandho rūpam ti? Āmantā.* Yamaka, quoted by Jaytilleke, *Early Buddhist Theory of Knowledge*, 306.

    In the commentary on this passage it is clearly said, *Tattha rūpan rūpakkhandho ti yaṇ kiñci rūpan ti vuccati sabban tan rūpakkhandho ti vacanasodhanatthaṇ pucchati. Piyarūpaṇ sātārūpaṇ na rūpakkhandho ti yaṇ piyarūpan sātarūpan ti ettha rūpan ti vuttaṇ tan rūpam eva, na rūpakkhandho ti attho/*. C. A. F. Rhys Davids, ed., "*Yamakappakaraṇatthakathā* from the *Pañcappakaraṇatthakathā*," *Journal of the Pāli Text Society* (1910–1912): 59.

28. *Vedanā vedanākkhandho ti? Āmantā. Vedanā vedanākkhandho ti? Āmantā/* Yamaka, quoted by Jaytilleke, *Early Buddhist Theory of Knowledge*, 306.
29. Cf. Karen C. Long, *Encyclopaedia of Indian Philosophy*, vol. xi.
30. Quoted by Jaytilleke, *Early Buddhist Theory of Knowledge*, 306.
31. Though the term *puggala* is generally translated as "self," but in the present context the term "matter" seems to be more appropriate to understand. That is why the term "matter" is used here.

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Do Good Philosophers Argue? A Buddhist Approach to Philosophy and Philosophy Prizes

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As the Berggruen Prize for Philosophy and Culture is inaugurated, it is worth asking what this and other prizes in philosophy honor—and what it is that philosophy actually does.

The recently inaugurated Berggruen Prize is now awarded annually "to a thinker whose ideas are of broad significance for shaping human self-understanding and the advancement of humanity."[1] Its inaugural recipient was the philosopher Charles Taylor, whose long career has encompassed substantial contributions to such understanding and advancement in fields as diverse as politics, ethics, hermeneutics, philosophy of religion, and philosophy of language. Throughout these interwoven threads of his thought, Taylor has proposed that the predominant view of selfhood in Western philosophy as a singular, independent, inner entity should be nuanced with an understanding of ourselves that does greater justice to the multiplicit and intersubjective nature of what, for him, can only ever be a socially constructed, historically determined self.

The prize's second recipient was Onora O'Neill, who has likewise made substantial contributions to an impressively wide range of philosophical fields. For although O'Neill's work overall may broadly be located within ethics, under this overarching rubric she has written, from a broadly Kantian perspective, on a swathe of issues in bioethics, children's rights, environmental values, international justice, moral cosmopolitanism, normativity, and hope, among others. As such, Nicholas Berggruen, the Berggruen Institute Founder and Chairman, has implicitly drawn on Plato's conception of the philosopher's mandate in calling her a "citizen philosopher,"[2] while the Institute's President Craig Calhoun underlines her dual role as "a wonderful leader in both theoretical reason and putting ideas into action."[3]

The Berggruen Prize is but the latest of many honors presented to Taylor and O'Neill over the years. Taylor's other major awards include the Templeton Prize, which honors "entrepreneurs of the spirit" who have "made an exceptional contribution to affirming life's spiritual dimension";[4] the Kyoto Prize, which is given to "those who have contributed significantly to the scientific, cultural, and spiritual betterment of mankind";[5] and the John W. Kluge Prize for Achievement in the Study of Humanity administered by the Library of Congress, for which the main criterion of selection is "deep intellectual accomplishment in the study of humanity."[6] O'Neill, meanwhile, is a past winner of the Holberg Prize, whose stated objective is "to increase awareness of the value of academic scholarship in the arts, humanities, social sciences, law and theology,"[7] and recipient of the Knight Commander's Cross of the Order of Merit of the Federal Republic of Germany, which is designed "to draw public attention to achievements that

. . . are of particular value to society generally."[8] She has been chair, moreover, of the UK Equality and Human Rights Commission and the Nuffield Council on Bioethics and a member of the Human Genetics Advisory Commission—in which roles she strove to implement "just public policies to better the human condition."[9]

I cite the wording of these prizes and about these public roles because I want to make a point about the relationship between what they uphold to be philosophical merit on the one hand and the practice of academic philosophy on the other. Put briefly, I do not think the one has much to do with the other, and this primarily because what counts toward career success in philosophy today has precious little to do with such ideals as the "advancement of humanity," "affirming life's spiritual dimension," the "spiritual betterment of mankind," or implementing "just public policies to better the human condition." Prominence and prestige in university philosophy departments is gauged not so much by one's "deep intellectual accomplishment" or "value to society" as by the trenchancy and force with which one manages to cut down an opponent. Given this, it should come as no surprise that even within the lamentably cutthroat context of contemporary academia, philosophy departments have a distinct reputation for being especially competitive and combative. In other words, even while philosophy prizes reward rich reflection upon human identity and purpose, the ordinary practice of professional philosophers has shifted from "philosophy as a way of life" (to use Pierre Hadot's memorable phrase) to philosophy as contention and critique.

It goes without saying that philosophers have always argued with one another. Western philosophy begins with Socrates's attack on the Sophists as morally bankrupt swindlers seeking not wisdom but renown, and the tendency of philosophers to deny others the garlanded title of "Philosopher" ("Lover of Wisdom") has proven inveterate ever since. (For a recent instance, we need only note the virulent objections of philosophers around the world to the University of Cambridge awarding an honorary degree to Jacques Derrida in 1992). This argumentative nature of philosophical discourse is of course not confined to the West, as evinced by Zhuangzi's caricaturing of Confucius's social uprightness in China, Ratnakīrti's refutation of the Naiyāyikas' theism in India, or Averroes's rejection of Avicenna's Neoplatonism in Islamdom, to give but a handful from almost infinite possible examples.

As for Charles Taylor and Onora O'Neill, they too have *argued*—sometimes vehemently—with certain philosophical predecessors and peers. Taylor's communitarian social theory, for instance, is a direct critical reaction to the libertarianism of John Rawls and Robert Nozick, while his seminal work on the persistence and transformation of religion in the modern world systematically dismantles the mainstream narratives of secularization theory. And O'Neill's seminal espousal of cosmopolitan rather than civic justice (to limit our discussion here to but one of her fields of influence), while developing from the broadly "accepted empiricist views of reason, action, freedom and motivation, not to mention knowledge" of Rawlsian Kantianism, nevertheless seeks to "explore some of the paths not generally taken"[10] in the relevant debates, and thereby effectively (also) acts as a meta-critique of the discipline itself. Indeed, it should go without saying that Taylor and O'Neill regularly draw on, refine, and/or rebut points raised by thinkers spanning the entire reach of the Western philosophical canon, from Aristotle and Plato, through Augustine, Descartes, and Adam Smith, and on to Kant, Hegel, Heidegger, and the formative voices of our own century.

The combative aspect of philosophy is readily apparent even in the word most commonly used by philosophers to describe the fruits of their endeavors. "Argument" is what a philosopher seeks: He (and the percentage of "hes" as opposed to "shes" among faculty in philosophy departments is much higher than in any other humanities field)[11] gains in status precisely to the extent he succeeds in criticizing the arguments of his opponent and establishing his own. This argumentative mentality is so pervasive that Graham Priest (as prominent a contemporary philosopher as any) has, in a recent essay entitled "What Is Philosophy?" defined philosophy precisely as "critique." Priest goes on to state that "Criticism is the lifeblood of the discipline," such that "if philosophers ever ceased disagreeing with one another our profession would be done for."[12] He is echoed by G. E. R. Lloyd, whose chapter on "What Is Philosophy?" begins unequivocally with the claim that "What counts as 'philosophy' is contentious in the extreme, including, indeed especially, among those who call themselves 'philosophers.'"[13] In the remainder of this piece, I want to propose that not only is this not the only way of doing philosophy, but that it systematically impedes precisely the kind of intellectual depth, breadth, and generosity recognized by major awards such as the Berggruen, Templeton, Kyoto, Kluge, and Holberg Prizes.

I will take my cue from my own field of specialization: Buddhist philosophy. Although there is no shortage of occasions in which the Buddha engaged his interlocutors in argument, it is crucial to keep in mind that on all such occasions his professed aim was not to "win" a given debate as it was to aid his fellow humans alleviate suffering. This compassionate will to forego the peace of secluded silence for the interactive and unending work of helping others see through ignorance is, according to the earliest sources, precisely what led the newly enlightened Buddha to return to the world and engage with its myriad problems. Perhaps the most famous instance of the Buddha's principled refusal to engage in futile argument occurs in the *Shorter Discourse to Mālunkyaputta*, one of the *Middle Length Suttas* detailing the Buddha's own instruction. There, the monk Mālunkyaputta takes umbrage with the Buddha for not speculating on metaphysical questions regarding the eternity and infinity of the world, identity of the soul, and life after death. The Buddha responds firstly by pointing out that he never promised answers to any such questions. He then proposes an analogy between one fixated on matters like these and a man struck by a poisoned arrow who, rather than letting a surgeon pull it out, insists on getting answers as to who exactly shot it (including his name, family, height, skin color, provenance, etc.) and what exactly constitutes it (including the bow's length, bow's string's composition, bow's string's feather's provenance, etc.). The Buddha concludes that he has left

certain matters undeclared because to engage in them "is unbeneficial . . . does not lead to disenchantment, to dispassion, to cessation, to peace, to direct knowledge, to enlightenment, to Nirvana."[14]

This passage needs to be read in the light of numerous others in which the Buddha (and the Buddhist philosophical traditions stemming from his insights) advises us to remain detached from our views—even, indeed especially, if they are right. For while certain views or philosophical positions are, for Buddhists, just plain wrong (e.g., that we are fundamentally unchanging, independent selves) and others are concomitantly right (e.g., that all there is to us is a network of relations), all views—right or wrong—are potentially harmful insofar as they can lead to partiality and egoism. On this basis, philosophers in major centers of learning throughout the Buddhist world would, over the course of many centuries, invent and adopt innumerable techniques with which to undermine their own philosophical positions. This was not done because they conceived of their own teachings as somehow paradoxical or untenable, nor was it the result of faulty reasoning or some kind of "Oriental" inability to argue rationally. Rather, the Buddha and his philosophical heirs endeavored to remain detached from philosophical views, including their own, because they remained keenly aware of the suffocating grip conceited confidence in one's own intellectual prowess could have.

If I have described it clearly, the Buddhist disavowal of argument for argument's sake (or argument for the sake of winning it) should contrast sharply with my characterization of professional philosophy as inveterately argumentative. Just as importantly, however, the Buddhist approach to philosophy—according to which argument and critique are employed only insofar as they are deemed beneficial to both proponent and opponent—appears to share much in common with the mandate of philosophy prizes such as those mentioned above. The Berggruen Prize, after all, is awarded not for arguments that beat other arguments, but "for ideas that shape the world," on the understanding that—in the Berggruen Philosophy and Culture Center's own words—"philosophy is vital not just as an academic discipline but as a source of intellectual and moral orientation in the world."[15] It thus makes perfect sense that the inaugural Berggruen Prize should go to a philosopher whose lifework is stamped with a profound appreciation for the diverse and relational nature of self and world, and who has consequently argued forcefully for mutual recognition and peaceful coexistence, and that its second installment should go to a "citizen philosopher" who holds a long and distinguished record of applying her theoretical acumen on resolutely "political" topics (in the Aristotelian sense) to far-reaching public service. Such ideals, while incompatible with an attitude of ideological hostility, accord perfectly with the aims of the Buddhist philosophical enterprise, in which ideas that are not helpful are shunned as sophistry, and true love of wisdom must go hand-in-hand with care for one's fellow feeling beings.

NOTES

1. "The Berggruen Prize," Berggruen Institute, http://philosophyandculture.berggruen.org/councils/berggruen-prize.
2. "$1 Million Annual Berggruen Prize for Philosophy and Culture Awarded to Citizen Philosopher Onora O'Neill," Berggruen Institute, http://philosophyandculture.berggruen.org/activities/116.
3. Ibid.
4. Templeton Prize, http://www.templetonprize.org/abouttheprize.html.
5. "About Kyoto Prize," Kyoto Prize, http://www.kyotoprize.org/en/about/.
6. "The John W. Kluge Center at the Library of Congress," Library of Congress, http://www.loc.gov/loc/kluge/prize/.
7. "About the Holberg Prize," Holberg Prize, http://www.holbergprize.no/en/about-holberg-prize.
8. "The Order of Merit of the Federal Republic of Germany," Der Bundespräsident, http://www.bundespraesident.de/EN/Role-and-Functions/HonoursAndDecorations/TheOrderOfMerit/theorderofmerit-node.html.
9. "$1 Million Annual Berggruen Prize for Philosophy and Culture Awarded to Citizen Philosopher Onora O'Neill," Berggruen Institute, http://philosophyandculture.berggruen.org/activities/116.
10. O'Neill, Onora. *Bounds of Justice*. (Cambridge: Cambridge University Press, 2000), 2.
11. American Philosophical Association Pacific Division Executive Committee, "Program Review Report [Gender Composition], 2004–2011," https://www.apaonline.org/resource/group/bf785b0d-eb59-41f8-9436-1c9c26f50f8e/program_review_report.2004-1.pdf.
12. Graham Priest, "What Is Philosophy?" *Philosophy (Issue 2)* (Cambridge: Cambridge University Press, April 2006), 203 fn9 and 189.
13. G. E. R. Lloyd, "What Is Philosophy?" *Disciplines in the Making: Cross-Cultural Perspectives on Elites, Learning, and Innovation* (Oxford: Oxford University Press, 2009), 5.
14. *Cūḷamālunkya Sutta* (63:8) in Bhikku Ñāṇamoli and Bhikku Bodhi. (trans.) *Majjhima Nikāya: The Middle Length Discourses of the Buddha* (Boston: Wisdom Publications, 1995), 536.
15. "The Berggruen Prize," Berggruen Institute, http://philosophyandculture.berggruen.org/councils/berggruen-prize.

ONTOLOGY, LOGIC, AND EPISTEMOLOGY

Īśvaravāda: A Critique

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Who created the world? What is the purpose behind human life? What is the cause of the world appearance? Believers raise these questions and claim that the world must have a creator; He must have some purpose behind creation of the human world and the world's appearance as a whole. They also claim that the Creator must be omniscient, omnipotent, and must respond to our prayer and worship. Here the question arises whether their claims are justified.

From the other side the non-believers claim that there cannot be any omniscient, omnipotent creator God. The discourse on theism and atheism is not only ontological, it is very much concerned with human life. Theists and atheists correlate their ontological claims with the meaning they attach to human life, the values to be cherished or not to be cherished in life.

Believers generally believe that one cannot be moral without being religious and one cannot be religious without believing in God. But the diverse Indian philosophical tradition does not support this view. The Lokāyata School can be said to advocate a hedonist or utilitarian morality. But it can hardly be called a religious school. Schools like Sāṅkhya-Yoga, Pūrvamīmāṁsā, Jainism, and Buddhism can be called not only moral, but also "religious" because they have their concepts of sacred—which are related to other worlds and life after death, and also ritualistic or sacred practices. But these schools do not accept the concept of creator God.

Which are the schools that accept the existence of God, then?

Even schools like Nyāya and Vaiśeṣike, which later on became strong advocates of theism, were not theistic in their early form. And though Vedānta literature presents different forms of theism—non-dualistic, qualified-dualistic dualistic, and so on—all forms of Vedānta do not acknowledge themselves as theistic. For example, the absolute non-dualism of Śaṁkara distinguishes the Brahman from Īśvara and regards only the former as the ultimate reality.

But in later development of the system of Nyāya-Vaiśeṣika and Vedānta and the school like Kashmir Śaivisam, we find the growth of theism and we find today that belief in God in some form or another is regarded as a defining feature of Vedic culture or Hindu culture. Now they say only that there is diversity of the conceptions of God in Hinduism. God can be a part of our life in the form of any deity—visible or invisible, personal or impersonal, with qualities or without qualities (saguṇa or nirguṇa). I will not go into the diversity of the conception of God. In this paper I will deal with two most basic conceptions of God. I will call one the *upādāna* concept of God and the other the *nimitta* concept of God. That is, God as the material course of the world and God as the efficient course of the world.

UPĀDĀNA CONCEPT OF GOD

According to this concept, God is the foundation of everything. Either one may say that God creates the world from himself (for the sake of brevity I am calling God "He"; it could be She also, or it could be a union of He and She) or that God creates the world from nothing. Here, one is not saying that there is already some preeminent material, which God only assembles. So one who follows the Upādāna type of theism would say that there is no matter or souls existing over and above God. He may either say that they are manifestations of God himself or that the so-called matter and souls are just superimpositions or illusions, *adhyāsa* or *māyā*.

As far as I understand, Kevalādvaita Vedānta propagated by Śaṁkara follows the Upādāna concept of God. Of course, some Kevalādvaita-Vedātins may not agree with this view. They would say that according to them, the ultimate reality is Brahman and not Īśvara. With due apologies, I claim that Kevalādvaitins are playing with words.

Śaṁkarācārya accepts the definition of Brahman, namely, *janmādy asya yataḥ* (Brahman is that from which all this originates, due to which it is sustained and in which everything merges at the end).[1] He also asserts that Brahman is omniscient and omnipotent.[2] He also accepts the description of Brahman as full of bliss *ānandamaya*.[3]

It is true that Īśvara in the Kevalādvaita-Vedānta is described as Brahman conditioned by māya. But māya is anirvacanīya, which means that it is neither real nor unreal, that it is neither identical with Brahman, nor different from Brahman.[4] This is confusing. One of the implications of this description is that Brahman can be identified as Īśvara from a conventional or practical point of view, though it cannot be so identified from the ultimate point of view. But to say that they are not identical is not to say that they are absolutely different. For me, what Vedāntins accept at a practical level is more important than what they accept as "ultimate truth."

Advaitin's position that Brahman creates the universe from itself, like a spider creates a web from its own body,[5] and the Christian view that God creates universe from "nothing" or from mere word[6] are on par. According to both views, God is the sole cause of the universe. Hence, He can be regarded as wholly responsible for the universe.

In the context of this type of theism, the difference between real and illusory, between real and imaginary, between real and verbal get blurred. What is just a play of imagination for God is real for us. God is like a magician who creates an illusory world, but it becomes a reality for us. What is just a word for God is the world for us. But who are we before whom God creates this magical world? For Christians, we are ourselves his creations, his creatures. For Advaitins, the answer can oscillate between two extremes: We are either illusory appearances of Brahman, or we are ultimately identical with Brahman. But one can ask at this stage: Does God take full responsibility for his creation?

The God of Christianity is not only omniscient and omnipotent but is omni-good. He is full of love and compassion. The Brahman of Vedāntins is also omniscient and omnipotent and it is full of bliss (*ānanda*).

This leads to a serious problem, famously called the problem of evil.

If God is omniscient, omnipotent, and full of all goodness, why is there suffering in this world? The responsibility of the evil which manifests through cruelty and suffering cannot be assigned to human beings, as they themselves are either divine creations or identical with Brahman/God. Since we have to accept the existence of evil in the world, there must be something wrong about the nature of God/Brahman we presupposed. God must be deficient in some way or the other. He must be deficient either in knowledge and power or deficient in his goodness—his love and compassion—or he must be deficient in more factors than one. God cannot shun his responsibility by saying that he has given free will to human beings, and if they suffer, they suffer because of their imperfections. The question would be, why does the perfect God create imperfect beings at all?

Can Advaitin be excused for saying that after all suffering is due to ignorance or misconception, because they are not clear on the question whether ignorance or misconception is real or unreal? If ignorance and misconception are real and the suffering arising from them is equally real (which I can grant, in a sense), then this implies a deficiency in God who has to allow such a rival force to exist.

Vedāntins cannot escape by saying that ultimately both ignorance and suffering are unreal. Suffering is a matter of our true experience and it cannot be said to be illusory. Advaita-Vedāntin's claim that the world and the suffering in it are illusory on the basis that they get sublated (*bādhita*), that they are transitory.

I think the major mistake Advaita-Vedāntins commit is the confusion between *bādha* (sublation) and *nāśa* (cessation). They use illusion as the model for explaining world experience. One has an illusion of silver in place of a conch shell. When one has the veridical perception of the conch shell, the silver-experience is sublated; one does not experience silver there. Advaitins claim that Brahman experience sublates the world experience in a similar way. But this does not follow. We could grant that the world experience, which has subject-object-duality, ceases (temporarily?) at the time of Brahman-experience, which lacks such a duality. This is just a case of stoppage or cessation (*nāśa*) of one experience and arising of a new experience. It does not follow from this that the world-experience gets sublated or falsified (*bādhita*) by the Brahman experience. Similarly, though one grants that suffering ceases due to Brahman-experience, it does not follow from this that the reality of sufferings which one experienced before gets falsified by the so-called Brahman-experience.

Hence, I am suggesting that the problem of evil becomes a serious problem in the context of the *upādana* conception of God. Hence it became a problem for the conceptions of God in Semitic religions and Kevalāvaita Vedānta in India.

The scholars of Indian philosophy many times claim that the religious schools of Indian philosophy answer the problem of evil on the basis of the doctrine of karma. The pleasures and sufferings of human beings are governed by their past karma and not by God. This answer to the problem of evil is not suitable for Advata-Vedānta. That is because since the individual *jīva* cannot be ultimately differenced from Brahman, the individual karma, too, cannot be isolated from Brahman.

It could be stated here that at least in the case of a dualistic conception of God when individual souls differ from God and God is supposed to be an efficient cause (*nimittakāraṇa*) of the world rather than a material cause (*upādānakāraṇa*), God can be detached, to a certain extent, from the individual actions, merit, and demerit generated by them and their fruition. As Krishna of the *Gītā* says, "God does not take away demerit or merit of anyone. Knowledge is covered by ignorance. Living beings get deluded due to that."[7] This takes us to the *nimittakāraṇa* conception of God.

NIMITTAKĀRAṆA CONCEPT OF GOD

The system which forcefully presented and defended the *nimittakāraṇa* concept of God is the joint system of Nyāya and Vaiśeṣika in its later stage (starting from Udyotakara). Of course, between the Nyāya and Vaiśeṣika systems, it is the Naiyāyikas who took lead in presenting arguments for the existence of God. But the arguments of Naiyāyikas were largely based on Vaiśeṣika metaphysics. Hence, I am calling them Nyāya-Vaśeṣika arguments or Nyāya arguments interchangeably.

The God of the Nyāya-Vaśeṣika system is *nimittakārana* of the world, like a potter is of a pot or a sculptor is of a sculpture. He rearranges the basic material that is already present. God in this sense is a maker rather than "creator." That is because, according to Vaiśeṣika, metaphysics there are many eternal substances and hence they cannot be created by anyone. For instance, the atoms of four gross elements, ether (*ākāśa*), space, time, souls (*ātman*), and minds (*manas*) are all eternal. God cannot create them; He cannot destroy them either.

God can combine atoms to produce molecules, or he can produce qualities in some substances. For example, he can produce pleasures and pains in souls according to their merit and demerit produced by the past karma. By doing so he implements the law of karma. But God is not supposed to change the essential nature (*svabhāva*) of things. The essential characters or defining characters of all the nine substances which the Vaiśeṣika system accepts are not supposed to be determined by God. Nor can God interfere with the essential natures. Hence the God of the Nyāya-Vaiśeṣika system is supposed to be omniscient and omni-good also, but he is not omnipotent in the absolute sense of the term.

Though the God is not the creator of the basic substances or of their essential natures, when any changes take place in these substances, when two substances join or are separated or when any new quality or motion arises in the substances, God is one of the general causes due to which it happens. Naiyāikas accept a series of general causes (*sādhāraṇa-kāraṇa*).[8] They include God, his knowledge, desire, and effort.

Why are God and his above qualities regarded as general causes? What role they play in the causal process is not made clear by the Naiyāyikas. For example, when a potter makes a pot by joining two halves of the pot, by placing them on the wheel, and by rotating it, the Naiyāyikas will regard the two halves as the inherent cause (or material cause, *samvāyikāraṇa*), the conjunction of the two halves of the pot as the non-inherent cause (*asamvāyikārṇa*), and the potter, his knowledge, desire, efforts, and the instruments he uses, as the efficient causes or instrumental causes (*nimittakāraṇa)*. All these causal factors operate according to their essential natures, and God does not seem to have any role in their operation.

I think we can make sense of God's role as *sādhāraṇa-kāraṇa* by considering it in connection with *dharma* and *adharma*, that is, merit and demerit. According to the Naiyāyikas, any event takes place for someone's pleasure or pain, and any

living being (*jīva*) experiences pleasure due to *dharma* and he or she experiences pain due to *adharma*. In this sense, *dharma* and *adharma*, which are the essential factors in the operation of karma doctrine, are the general causes common to all events.

As we saw, the implementation of karma doctrine is done by God. In this sense, God can be regarded as the general cause of all events through the operation of karma doctrine. This role of God presupposes moral argument for the existence of God, which we will consider later. Before we examine the Nyāya arguments for the existence of God, let us consider some other features of God accepted by Nyāya-Vaiśeṣika.

God of Nyāya-Vaśeṣika is a special kind of soul (*ātman*) called *paramātman*. An ordinary soul (*jīvātman*) has eight special qualities—cognition, desire, aversion, effort, pleasure, pain, unseen disposition (merit-demerit), and impression.[9] Of these, God has only three—cognition, desire, and effort. The special qualities that God has are permanent. Ordinary souls produce or destroy things with the help of body, with the help of limbs. God, however, creates and destroys the world without using body, because he has no body.

God creates and destroys the world not once but innumerable times. This is in accordance with past *karma* of souls and *dharma* and *adharma* produced by them. Since the cycle of *karma* and its fruition has no beginning, the cycle of creation and destruction of the world has no beginning. Hence there is no absolute creation (or the first creation) or absolute destruction (once for all) of the world.

Creation of the world involves creation of molecules and compounds from material atoms, from which animal bodies, including human bodies, are created and are associated with *jīvātmans* according to the merit and demerit accumulated by the latter. It also involves creation of the four *varṇas*.[10] God, having created the world, also creates Vedas and Sanskrit language. Destruction of the world involves suspension of life of the *jīvas* and disintegration of matter into atoms. God does this in order to give a long rest to *jīvas*,[11] though he cannot liberate them on his own.

NYĀYA ARGUMENTS FOR THE EXISTENCE OF GOD: CLASSIFICATION

After this brief descriptive account of God and his sport, let us discuss in brief the argumentative account. The Nyāya arguments for the existence of God are first found in the fifth- to sixth-century work, *Nyāyavārtika* of Udyotakara. They are found in many later Nyāya works such as those of ninth- and tenth-century Nyāya philosophers Jayantabhaṭṭa, Bhāsarvajña, and Vācaspatimiśra. Udayana's (eleventh century) *Nyāyakusumanjali* is regarded as a classic on this theme. After Udayana, Gaṅgopādhyāya (fourteenth century) devotes a section of his *Tattvacintāmaṇi* to *Isvarānumāna*.

It is not possible to discuss all different arguments advanced by the Naiyāyikas in different texts in a short span. But we can deal with the major arguments. Karl Potter, in his introduction to the second volume of the *Encyclopedia of Indian Philosophies*, classifies the Nyāya arguments into three groups which he calls

1) Cosmo-teleological arguments,

2) Arguments from existence of language and the authorship of the Vedas, and

3) Negative-ontological arguments.[12]

I will follow here his method of classifying arguments into groups, though I may differ in my mode of grouping.

For example, I would distinguish between cosmological and teleological argument (or argument from design) and state them separately.

Secondly, the Naiyāyikas also advance an argument from diversity (*vaicitrya*) caused by karma,[13] which I feel can be called a kind of moral argument for the existence of God.

Hence, I would like to divide Nyāya argument for the existence of God into six types as follows:

A) Negative Ontological Argument

B) Cosmological Argument

C) Teleological Argument (Argument from design)

D) Moral Argument

E) Argument from authorship of the Vedas

F) Argument from the creation of (Sanskrit) language

Let us consider these arguments one by one.

A) NEGATIVE ONTOLOGICAL ARGUMENT

Udayana, in the third chapter of *Nyāyakusmāñjali*, has suggested an ontological argument for the existence of God. It is different from the famous ontological argument which derives the existence of God from the conception of God as a perfect being. But still it is an ontological argument because it is based on the concept of existence. Potter calls it negative ontological argument because here Naiyāyikas are not proving that God must be existent, but they are arguing that nonexistence of God cannot be proved.

Atheists claim that God is not found anywhere; hence, we can say that God does not exist. God is similar to horn of a hare about which we can say that they do not exist. This can be called an argument from nonapprehension (*anupalabhi*). The argument will run as follows: "If horn of a hare would have existed, it would have been seen. But it is not seen anywhere. Therefore, it must be nonexistent. Similarly, if God would have existed, he would have been perceived. But he is not perceived anywhere. Hence God must be nonexistent."

Naiyāyikas argue against this that nonapprehension (which is reducible to perception, according to them) can be a means to the knowledge of nonexistence of an

object if the object is capable of being perceived (*yogya*). But God is an object which cannot be perceived. Hence, nonapprehension of the entity called God cannot be the means to the proof of its nonexistence.

Moreover, we cannot genuinely say that God does not exist, because any nonexistence, that is, *abhāva*, is nonexistence of "something" that exists sometime, somewhere. Hence, who asserts nonexistence of God in fact asserts the existence of God sometime, somewhere, in some way or the other. In this context, Udayana treats the logical status of the concepts of God (*īśvara*), Omniscient (*sarvajña*) and maker of the earth and other things *kṣityādikartā*), as on par. Just as claiming that God does not exist is fallacious, according to him, to claim that "No souls are omniscient" or "No soul is a maker of the world" is fallacious because we cannot deny the existence of such a being without presupposing it.[14]

Here, Udayana seems to distinguish the statement "God does not exist" from the statement, "A horn of a hare does not exist." Udayana restates the statement, "A horn of a hare does not exist" as "There is no horn which belongs to a hare."[15] But he is not inclined to analyze the statement "God does not exist" in a similar fashion. He seems to treat "horn of a hare" as an analyzable complex concept, but God as an unanalyzable simple concept. On this assumption, the Nyāya argument would appear as obvious.[16]

Here, a question can be asked: Is the concept of God an indivisible simple concept, like the concept of "yellow" or the concept of "good" which G. E. Moore described to be indefinable and simple?[17] Or is it a complex concept?

What is the meaning of the word "God"? A Vedāntin might claim that he conceives of God as "pure consciousness" and hence it is a simple concept for him. Of course, even such a claim of the Vedāntin would be dubious. It would be open to question whether the simple consciousness he conceives of is an arbitrary consciousness or an all-pervasive cosmic consciousness. In other words, the Vedāntin will have to qualify pure consciousness, make the concept complex in order to give it the status of God.

Whatever Vedāntin's case may be, Naiyāyika cannot understand God as a pure and simple concept. God for him is the supreme self (*paramātman*), which is efficient cause (*nimittakāraṇa*) of the world. The most minimalistic concept of God or Īśvara is that of the maker of the world. So the question whether God exists is not a question like whether "yellow" exists or whether "good" exists. But it is a question whether the maker of the world exists. In other words, it is a question whether the world has a maker. One who denies the existence of God is simply saying that the world has no maker. The grammar of this statement is similar to that of "a hare does not have a horn." So denial of the existence of God is similar to the denial of horn of a hare.

Of course, the Naiyāyikas must have been aware of this fact and hence they do not insist on the negative ontological argument as their major argument for the existence of God. Their major arguments are cosmological or teleological, which simply try to prove that the world must have a maker. So let us turn to these arguments.

B) COSMOLOGICAL ARGUMENT

Naiyāyikas try to prove that the world has a maker by giving different cosmological and teleological arguments. Even their teleological arguments have a basic cosmological structure. So one can say that their teleological argument is not an independent argument, but it is a strengthened or complicated form of the cosmological argument. Hence, Karl Potter has clubbed the two types of the Nyāya arguments together and called it cosmo-teleological argument. I feel, however, that for the purpose of clearer understanding of the Nyāya argument, one should first understand the basic structure of their cosmological argument and then understand the teleological argument as a special case of it.

C) STRUCTURE OF THE COSMOLOGICAL ARGUMENT

Stated in a rough or crude form, the Nyāya cosmological argument states that the world must have a maker like a pot has a potter. Popularly, the argument is presented in the form of a verse:

> If the world has no maker,
> then a pot without a potter,
> and a painting without a painter
> will come about by itself.[18]

But the argument does not remain as simple as that on the background of the Nyāya-Vaśeṣika ontology. The ontological structure of the world which is at the background of this argument has the following features:

According to the Nyāya-Vaiśeṣika ontology, the universe can be divided into three kinds of objects or *padārtha*s:

1. *Nitya-padārtha*s or eternal objects.
2. Non-eternal objects which are "made" by someone. This would include artefacts like pots, cloths, pictures, sculptures, and houses.
3. Non-eternal objects which are not humanmade which we may generally call natural or nature-made objects, such as animal-bodies, trees, mountains, and rivers.

On the background of this ontological structure, the Naiyāyikas are trying to argue that the third group of objects, which includes animal-bodies, trees, and so on, must be like the second group—that is, that of the objects made by humans. Now, the natural objects are not made by humans. So they must be made by some non-human or super-human agent. That super-human agent is nothing but God.

Though this is a kind of analogical inference, the Nayāyikas give it the form of a valid argument by supporting it with a universal statement (the statement of pervasion) that whatever is a product (*kārya*) has a maker.

Different Naiyāyikas have formulated the cosmological argument in different ways. Ratnakīrti states a simple

formula in the form of a five-step inferential statement (*paṅcāvayavi-vākya*) as follows:

(i) The object under discussion [that is, our world/the earth or anything like it] has been constructed by an intelligent agent

(ii) On account of being an effect

(iii) Each and every effect has been constructed by an intelligent agent, just like a pot.

(iv) And the [world/earth] is an effect.

(v) Therefore, it has been constructed by an intelligent agent.[19]

Naiyāyikas, however, do not always state their inference in the form of a five-step argument. For the sake of brevity, they state it as having three factors: Declaration (*pratijñā*), Reason (*hetu*), and Instance (*dṛṣṭānta*). For instance, Naiyāyikas would state the above argument as follows:

The object under discussion has been constructed by an intelligent agent,

On account of being an effect,

Like a pot.

In order to understand and examine the Nyāya inference, it is important to note some of the technical terms. To start with, there are three basic terms: *paksa*, *hetu*, and *sadhya*. *Paksa* is the locus or the property-bearer where the existence of *sadhyadharma* (target-property) is to be established. This is done on the basis of the *hetudharma* (reason-property), which is supposed to be existent in the locus.

According to Nyāya theory of inference, a reason-property, in order to be sound, has to fulfill five conditions:

1) It should exist in the locus (*pakṣe sattvam*).

2) It should exist in at least some of the similar cases (*sapakṣe sattvam*).

3) It should be nonexistent in all the dissimilar cases (*vipakṣe asattvam*).

4) The existence of the target-property should not be sublated by a stronger *pramāṇa* (*abādhitaviṣayatvam*).

5) An equally strong counter-inference should not be available (*asatpratipakṣatvam*).

Here, the terms *sapakṣa* (similar cases) and *vipakṣa* (dissimilar cases) need to be defined. *Sapakṣa* means the set of all those cases where the target-property definitely exists, and *vipakṣa* means a set of all those cases where the target-property is definitely nonexistent. *Pakṣa* is the locus where the existence of the target-property is yet to be decided.

Now let us see how the Naiyāyikas skillfully construct their cosmological argument so that the reason-property appears to fulfill all the five conditions. Take a simple formation of the argument:

The things like human bodies, mountains, and the earth have an intelligent maker because they are products, like a pot.

Here

i) The property of having an intelligent maker (that is, being made by an intelligent being) is the target-property.

ii) Being a product is the reason-property and

iii) All the things, which are products but are not human-made, constitute the locus (*pakṣa*).

iv) *Sapakṣa* consists of the things which definitely have a maker—whether a human maker or a non-human one.

v) *Vipakṣa* consists of the things which are definitely devoid of a maker. Here, the eternal substances constitute *vipakṣa*.

Naiyāyikas in this way, by skillfully arranging *pakṣa*, *sapakṣa* and *vipakṣa*, try to show that the reason property ("being a product") exists in the locus, namely, the natural products; it exists in similar cases (*sapakṣa*), that is, in the things which have a maker (for example, it does exist in the human-made things); and that it does not exist in dissimilar cases (*vipakṣa*), that is, in the things which have no maker (that is, the eternal things such as atoms, souls, time, and space are not products at all and hence the possibility of the reason-property, namely, product-hood existing there is ruled out.). Naiyāyikas also point out that the target-property—namely, the existence of a maker—is not sublated by other means and that there is no equally strong counter-inference.

The tricky part of the Nyāya argument is that though the inference contains a universal statement which covers all the cases, the locus, similar cases, and dissimilar cases, the truth of it is tested on the basis of existence and nonexistence of the reason-property in similar and dissimilar cases, respectively. All the problematic cases where the existence of a maker can be doubted are made a part of the locus, and a Naiyāyika has an excuse for not trying to show in advance that a maker exists in such problematic cases.

Naiyāyikas derive omniscience of God as a corollary of the above inference. In the case of a pot, one can say that its maker—namely, potter—has the knowledge of the relevant causal factors necessary for producing a pot. Similarly, God, the maker of the world, must have knowledge of all the causal factors that are needed for the production of the world, such as atoms, souls, and the merit and demerit accumulated by them, time, space, and so on. This point is sometimes made explicit in the target-property itself.

Vācaspatimiśra's argument, for instance, runs as follows:

> The objects under discussion namely body, tree, mountain, ocean and others are made by the one who knows the material cause and other things.
>
> Because they are products.
>
> Whatever is a product, is made by someone who knows its material cause and other things, for instance, a palace and other things are such products.
>
> The objects under discussion such as body are like that.
>
> Therefore, they are like that.[20]

Sometimes the argument is made more specific by referring to the situation at the time of the origination of the world. According to the Vaiśeṣika story of the genesis of the world, the world in the state of dissolution consists of atoms (*paramāṇu*) separated and scattered. When God decides to create the world, the first step is to join the atoms and construct the dyads (*dvaṇuka*), then join three dyads each and make triads (*tryaṇuka*), and so on and so forth. Naiyāyikas claim that there must be an intelligent agent existing prior to the origination of the world who joins the atoms, and he is God. Udayana argues,

> The atoms, dyads etc. become active only by being impelled by some sentient agent as they are insentient or inert like the pickaxe and other instruments of movement. If this were not so, then the rule that 'no effect without a cause' cannot hold.[21]

EXAMINING THE ARGUMENT

Whether this kind of cosmological argument for the existence of God is strong enough can be doubted. Three objections can be considered here, two of which come from Buddhists like Dharmakīrti, Śāntarakṣita, and Ratnakīrti, and one that comes from a group of Carvākas.

a) **The question of *vyāpti*-relation:** With the development of the theory of inference, a statement of universal concomitance was accepted as a necessary component of an inference. But the question was, how can the relation of universal concomitance be ascertained? Naiyāyikas maintained that such a relation between reason-property and target-property can be ascertained on the basis of observation of co-existence (*sahacāradarśana*) and nonobservation of deviation (*vyabhicāra-adarśana*). Dharmakīrti did not accept this. According to him, universal concomitance can be ascertained if it is based on necessary relation. And a necessary relation between reason-property and target-property can be obtained in only two ways: there should be either identity (*tādātmya*) or casual relation (*tadutpatti*) between the two.[22] No such necessary relation is obtained between "being a product" and "being made by an intelligent being." It is perfectly possible that a thing may be a product but is not made by anyone. Hence the Nyāya argument suffers from the fallacy of *Anaikāntika* (inconclusive), according to the Buddhists.[23]

It might be argued here that God, according to Nyāya, is a cause of the world and since Buddhists accept *tadutpatti* as a determiner of *vyāpti*, they should not have any problem with the causal argument for God advanced by Nyāya. The answer is that the Buddhists do not have any problem with the law of causation in general, which means that everything that happens has a cause. Buddhists develop their theory of causation, which includes fourfold classification of causal conditions (*pratyaya*),[24] just as Naiyāyikas develop their theory of causation, which includes threefold classification of causes.[25] Similarly, both Buddhists and Naiyāyikas regard cause as a necessary condition of the effect. But the main question here is not about cause in general but "intelligent agent" as the cause. Naiyāyikas believe that an intelligent agent is a necessary condition of every effect. Naiyāyikas generalize the case of human product and apply it to every effect. The Buddhists are not ready to do that. They are ready to accept the products such as pots, cloths, mansions, and staircases as caused by intelligent agents but not natural products such as bodies, earth, and mountains. Even with regard to combinations (*saṁghāta*) of atoms, the realist school of Buddhism would accept that they are causally conditioned, but they would question the view that an atomic combination must be made by an intelligent agent.[26]

b) ***"Iṣṭavighātakṛt-virudha"*:** The other fallacy in the cosmological argument that the Buddhists point out is "*īṣṭavighātakṛt-virudha*" (The contrary reason which violates the intended target). This is as follows. What the Naiyāyikas intend to prove through the cosmological argument is the maker of the world, who is omniscient, omnipotent, the one who operates without body or organs. But the evidence for that which the Naiyāyikas provide is that of the "makers" (such as a potter, a sculptor, and so on) who are essentially embodied and possess limited knowledge and power. The force of the evidence implies that the maker of the world also must be embodied and imperfect. Hence, the force of the reason property proves something contrary to the intended target.[27]

We have seen that the Naiyāyikas try to derive omniscience of God as a corollary from the cosmological argument itself. Just as a potter knows all the causal factors related to the production of a pot, God must be the knower of production of the world.

There are some loopholes in the argument. It is not necessary that every potter is an expert in making pots. He could have inadequate knowledge, and

every pot produced by him may not be a good pot. If God is also like that, then he may not have perfect knowledge of all the relevant factors, and the world he has created may not be an ideal world.

Buddhists raise a different objection against the Nyāya claim for God's omniscience. Naiyāyikas claim that God is one.[28] But this does not follow from the nature of human-made products which cosmological argument uses as evidence. On the contrary, there are many human products which are produced collectively by many imperfect agents. As Śāntarakṣita argues,

> This is as follows. The things such as a mansion, staircase, gateway of a temple and watchtower are determinately preceded by many persons who have impermanent knowledge. For the same reason, your reason-property violates the intended target because it proves that the world is preceded by many makers who have impermanent knowledge.[29]

c) ***Īśvara* as nonempirical object:** A different criticism of the Nyāya theism comes from a group of Cārvākas called "more learned Cārvākas" (Suśikṣitatara-cārvāka). Popularly, Cārvākas are known for rejection of inference as *pramāṇa*. But the more learned Cārvākas classified inference into two kinds: *utpanna-pratīti* (the object of which is experienced) and *utpādya-pratīti* (the object of which is yet to be experienced); in other words, inference of an empirical object and that of a nonempirical object. For example, inference of fire from smoke is *utpanna-pratīti* because the object of that inference—namely, fire—is empirical. The inference of *Īśvara* is *utpādya-pratīti* because it is about a nonempirical object.[30] This second type of inference is not acceptable to these Cārvākas. We can explain the Cārvāka criticism as follows: in the inference of Īśvara, Naiyāyikas are using the evidence of the empirical objects and their empirical makers, for example, pot and the potter, sculpture and the sculptor, and so on. But they are using these empirical evidences for proving God, who is essentially nonempirical. And this is not permissible.[31]

These are some of the major objections coming from Buddhists and Cārvākas against the Nyāya cosmological argument. One can notice here that in any theological theorization on God, one has to face the tension between the personal and the impersonal, the embodied and disembodied, the imperfect and the perfect. The God's concept is modelled on an ordinary situation of creation or construction. But simultaneously, it has to be given a universal, all-encompassing, transcendent character, and hence it deviates from the basic characteristics of creation or construction. And because of that, many paradoxes arise. We find this in Nyāya as well.

An ordinary creator or maker is an embodied being, and in fact the use of the body is an essential part of the act of producing anything. But though we create many things through our body, we do not create our own body. Can we apply this model to God? If God is supposed to be the maker of every product, and if he has a body, then he should create his body also. But for producing or constructing anything, we need a body. So for producing or constructing his body, God will need another body; for producing this second body, he will need a third body, and this will go on ad infinitum. To avoid this infinite regress, we imagine that it should be possible for God to produce anything without using body.

This seems to lead Naiyāyikas to think that God produces the universe without using body or organs, and that God has no body, and no organs. This makes God a mystical being.

A similar question arises about other properties of God, namely, cognition, desire, and effort. In the ordinary case of productive act, the producer's cognition, desire, and effort are operative, which, according to Nyāya-Vaiśeṣika metaphysics, are the qualities of ātman. But in an ordinary production situation the effort, which is mental in nature, does not directly give rise to the physical product. The mental effort (*prayatna*) gives rise to physical action (*ceṣṭā*), which in its turn brings about the physical product. In the case of God, since God is ātman without a physical body, he can perhaps have cognition, desire, and effort (*jñāna*, *icchā*, and *prayatna*). But after *prayatna* no *ceṣṭā* is possible. Without a physical action, God brings about the physical product directly. This is a leap from ordinary production situation to an extraordinary situation.[32]

These are not the only leaps. Many other leaps are involved. The ordinary producer's cognition, desire, and effort are all impermanent; they arise due to awakening of past impressions (*saṁskāra*) and maturation of merit and demerit (*dharma* and *adharma*). When they arise in a sequence, they cause physical action (*ceṣṭā*) and through it, they cause actual production. Now, the Naiyāyikes had to accept cognition, desire, and effort in the case of God also. Otherwise, how can God produce or destroy anything without having the knowledge of all the causal factors, without desire to produce, or to destroy and without effort towards production or destruction? But if God's knowledge, desire, and effort are impermanent like those of human beings, and if they are also governed by *saṁskāra*, *dharma*, and *adharma*, then God will be like an ordinary being, an imperfect being who is in bondage. To avoid this difficulty, the Naiyāyikas imagine that though God has cognition, desire, and effort, they are eternal in their nature. They also imagine that God knows everything directly, without the use of sense organs, memory, and so on.[33]

It is doubtful whether this can help the Naiyāyikas. On the contrary, the ideas of eternal knowledge of everything, eternal desire, and eternal effort give rise to many paradoxes. Take the case of God's knowledge. According to the Naiyāyikas, God can have only direct knowledge (*pratyakṣa-jñāna*); he cannot have indirect knowledge (*parokṣa-jñāna*) because indirect knowledge is based on

memory and memory is based on *saṁskāra*s. God does not have *saṁskāra*s. This implies that God sees everything, but he cannot recollect anything; he cannot think or imagine or infer anything.

But in that case God will have the knowledge only of the present, neither of the past nor of the future. How does he know past? Does he know past as past or as present? If he knows past as past, he has to know it through recollection, which is not possible. If he knows past as present (because he knows it "directly"), then he has a false cognition (because he does not know the thing as it is).

There is a problem about the so-called eternal knowledge also. A potter while producing a pot does not have a constant knowledge, but he undergoes a cognitive process. Only through a process, which involves change, can the potter's knowledge participate in the production of the pot. How can God's knowledge, which is supposed to be constant, nonchanging, participate in the process of creation or destruction of the world? Such a constant knowledge will be rather stubborn and will be a hindrance in the natural process of creation or destruction.[34]

God's desire will give rise to paradoxes in a similar way. "God has a permanent desire." What does this mean? In fact, it makes no sense. God has permanent desire to do what? To create the world? In that case he will permanently create the universe and never sustain or destroy it. If it is to destroy the universe, then he will always destroy and never produce anything. If he has permanent desire to produce as well as to destroy, then the two conflicting desires will cancel each other and nothing will result from it. The same type of paradoxes will arise in the case of God's effort also if it is taken to be permanent.

The general form of the paradox of the cognitive and psychological characters of God can be stated as follows. If God's cognitive and psychological faculties are similar to those of other agents, then God will be an ordinary, imperfect being, a being in bondage. But if God's faculties are extraordinary and eternal in nature, then they will be unable to perform their productive function.

C) TELEOLOGICAL ARGUMENT (ARGUMENT FROM DESIGN)

Cosmological Argument for the existence of God, as Naiyāyikas present it, is based on broad similarities between the human products and products in general. While presenting the argument from design, the Naiyāyikas try to go further. They draw our attention to the order (*racanā*, *saṁsthāna*, *sanniveśa*, or *vyavasthā*) that we find in the universe. They say that the order or regularity or arrangement that we see in the universe is not possible without an extraordinarily intelligent maker. Ordinary architects cannot bring about such an order. So the maker of this well-ordered universe must be a supremely intelligent and powerful being. He must be omniscient and omnipotent. We find this argument in Nyāya and also in Śaṅkara's commentary on Brahmasūtra 2.2.1, namely, "*racanānupapatteś ca nānumānam*," where Śaṁkara tries to refute the Sāṅkhya position that the insentient *Prakṛti* creates the universe without the support of any intelligent being.

CRITICISM

Buddhists have tried to show that this argument from design is untenable. Dharmakīrti in *Pramāṇavārtika* argues:

> It would be proper to infer the conscious support of a thing having a specific pattern (i.e., arrangement of elements) if there is invariable concomitance of that kind of pattern with that kind of support.
>
> But if the similarity between two things that they have specific pattern is only verbal or superficial the inference of conscious support will not be proper; it will be like inferring fire from "some white substance" which has only superficial similarity with smoke.
>
> Otherwise, just as a pot, because it has a specific pattern, is inferred to be produced by a conscious being, viz. potter, an ant-hill will also be so inferred, because it too has a specific pattern.[35]

D) MORAL ARGUMENT

The moral argument for the existence of God, in Indian context can be understood as an argument from the kārmic-moral order. The kārmic-moral order in a very general sense is accepted by all the Indian schools except Cārvāka. The non-Cārvāka schools believe in the rule that there is a correlation between good actions and pleasure and between bad actions and suffering. They believe that the diversity in the world of living beings is governed by their karma. This law of karma is accepted by many schools such as Pūramiṁāmsa, Sāṅkhya, Buddhism, and Jainism without accepting God. But theists believe that this cosmic moral order governing actions and their fruition is not mechanical, but it is regulated by a moral governor, and that moral governor is God. As Udyotakara argues in *Nyāya-Vārtika*, merits and demerits accumulated by the living beings cannot by themselves yield pleasures and pains as their fruits. It is God who turns merits and demerits of living beings into their fruits viz. pleasures and pains.

Buddhists record Udyotakara's argument as follows:

> Merit, demerit and atoms, all of them produce their effects only when supported by a conscious agent, because they are stable and are active (*sthitvà pravṛtti*), like the weaver's stick and threads.[36]

According to the Naiyāyikas, just as a weaver unites the threads by using an instrument such as stick, God unites atoms by using merits and demerits of beings. Atoms, merits, and demerits that are stable can be functional only due to the conscious agent, namely, God.

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The argument is not acceptable to the Buddhist philosopher Śāntarakşita because, according to him, the same rule can be applied to God himself, who, according to the Naiyāyikas, is stable and functional. Hence, by applying the reason property—namely, "stability qualified by

functionality"—to God, we will have to say that God must be preceded by another conscious being, say, God-2 and so on ad infinitum.

Two more objections are possible against the moral argument. One objection pertains to the relation between God and goodness. The second possible objection is about the question of moral order itself.

(i) **The relation between God and goodness:** Theists believe that how good actions lead to happiness and bad actions to pain is determined by God. Brahmanical theist thinkers such as the Naiyāyikas claim that the sacrificial actions enjoined in the Vedas lead to *svarga*, and this is determined by God through Vedas. Atheist moralists, on the other hand, would say that what is a good action or a bad action is determined by the autonomous norms of morality such as truthfulness and nonviolence and not by the consideration as to whether the action is enjoined by God or prohibited by God. Hence, goodness or badness of actions is independent of God.

(ii) **Is the moral order real or ideal?** The second objection would come from materialists or rationalists who would question the claim that there is moral order in the universe. They argue that a moral order or the just order could be an ideal order, but not an actually existent order. It may be legitimate or desirable to establish such an order in the universe. Theists believe that such an order already exists, though in reality we see many examples of disorder and injustice. The present inequalities and hierarchies in the human world are due to past karmas of those souls in their previous births or if they are wrong, they will be counterbalanced in the future births. Hence, behind this seeming disorder there is a grand, divine order. Such a theistic explanation of moral order and disorder becomes problematic from a social point of view because it promotes inactivism and fatalism. The moral argument for the existence of God, therefore, gives a misleading picture of morality and moral order. It is more appropriate, according to these critics, to accept the moral disorder in society as an undesirable actuality and try to transform it through collective efforts.

E) ARGUMENT FROM THE AUTHORITY OF VEDAS

There are two important ways of accepting Vedas as *pramāṇa*: 1) to regard Vedas as *apauruṣeya*: as not created by anyone, but eternal, and 2) to regard Vedas as God's creation. Pūrvamīmāsā accepts Vedas as *apauruṣeya*. Nyāya accepts Vedas as created by God. Even Advaita-Vedanta accepts Vedas as creation of God in the sense that it is an expression of Brahman.

For Naiyāyikas and Vedāntins, there is a two-way relation between God and the Vedas. The relation is expressed by the *Brahmasūtra* 1.3: "Śāstrayonitvāt." Śaṁkara interprets the expression Śāstra-*yoni* in two ways—as *tatpuruṣasamāsa* and as *bahuvrīhisamāsa*. According to the *tatpuruṣa* interpretation, "Brahman is the cause (*yoni*) of the Vedas."[37] And according to the *bahuvrīhi* interpretation, "Brahman has Vedas as *pramāṇa* (*yoni*-source (of knowledge))."[38] The idea is that the Vedas give authentic knowledge of a high order which an ordinary text cannot give. Hence, the author of the Vedas cannot be an ordinary person; he has to be omniscient. And that omniscient author of the Vedas is God. The other argument is that Vedas are an authentic source of knowledge (*pramaṇa*), and they themselves describe God as the cause of the world. Hence, there must be God.

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This argument appears to be circular. The authenticity of Vedas depends on the authorship of God, and the existence of God depends on the authenticity of Vedas. The argument proves neither the existence of God nor the authenticity of Vedas. Naturally, one who already believes in the authenticity of Vedas may be convinced by such an argument. But Buddhists, Jainas, and Cārvākas, who do not regard Vedas as authentic, cannot be convinced about the existence of God on the basis of this argument.

F) ARGUMENT FROM CREATION OF (SANSKRIT) LANGUAGE

But how did Īśvara produce Vedas? Vedas are in Sanskrit language. Who created Sanskrit language? Mīmāṁsakas believe that just as Vedas are eternal, the words of Sanskrit language are also eternal. The conventional relation between words and their meanings is also eternal. Naiyāyikas, on the other hand, believe that it is not only Vedas that were created by God, the Sanskrit language, including the conventional relation between words and meanings, was also created by God. God desired, "let this word have this meaning," and that became the convention. And accordingly, the Sanskrit words had their respective meanings.[39]

In fact, the Naiyāyikas presented this as an argument for the existence of God. Śāntarakṣita states the argument of this type made by Praśastamati.[40] The question was, how did the first human beings who were created in the beginning of the universe learn language? When a child learns language, it is because elderly persons such as a mother instruct the child about the use of words. Similarly, there must have been someone who instructed the first-born human beings about the use of Sanskrit words. And that someone is God.

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Śāntarakṣita ridicules the argument. According to him, for teaching a language by giving instructions about linguistic conventions, one needs a mouth. But God, according to you, is devoid of merit and demerit and hence he has no body and therefore no mouth for giving instructions.[41]

TO SUM UP

I have presented a brief survey of the major arguments for the existence of God in Indian context. I have suggested that there are two major orientations to God: one is "God as *upādāna-kāraṇa*" and the other is "God as *nimitta-kāraṇa*." The problem of evil as the counter-argument to the existence of God becomes more serious in the case of the *upādāna-*

oriented concept of God because it holds that God is the sole cause of everything in the world, including evil.

The *Nimitta-kāraṇa*-oriented concept of God escapes the problem of evil by attributing the origin of evil to karma of the *jīva*s and by regarding God as detached from it. Nyāya-Vaśeṣika thinkers are the chief advocates of the *nimitta-kāraṇa*-oriented concept of God. The arguments they advance can be classified into six kinds: cosmological, teleological, moral, one from the authenticity of Vedas, and one from creation of language. I have noted the major problems these arguments have to face in the light of the counter-arguments advanced by atheists such as Cārvākas and Buddhists.

I have felt while working on the theme that arguments against *Īśvaravāda* are stronger than the arguments for it. I leave it to the readers to form their own impressions and make judgments.

NOTES

1. BS, 1.1.2. This definition follows the formula of the nature of Brahman given in *Taittirīya Upaniṣad*, 3.1: *yato vā imāni bhūtāni jāyante yena jātāni jīvanti, yaṁ prayanty abhisaṁviśanti*. ("[Brahman is that] from which all these beings are born, due to which, the born ones live and that in which beings enter and merge.")
2. "*sarvajñaṁ sarvaśakti mahāmāyaṁ ca brahama*," BSB, 2.1.37 (Brahman is omniscient, omnipotent and endowed with māyā").
3. BSB,1.1.12-19 (*ānandamaya adhikaraṇa*).
4. "*avyaktā hi māyā tattvānyatvanirūpaṇasyāśakyatvāt*," BSB, 1.4.3 (Māyā is non-manifest, because it is impossible to determine it to be identical with or different from it (=Brahman)).
5. As Warrier translates a statement from *Bṛhadāraṇyakopaniṣad* (2.1.20), "As a spider may come out with his thread, as small sparks come forth from the fire, even so from the Self come forth all the vital energies" (*God in Advaita*, 20).
6. According to the Biblical story of creation, God created light in the beginning and it was created by God merely through his word: "God said, let there be light and there was light," Bible, Genesis, 1:3.
7. "*nādatte kasyaciṭ pāpaṁ na caiva sukṛtaṁ vibhuḥ/ ajñānenāvṛtaṁ jñānaṁ tena muhyanti jantavaḥ//*," BĠ, 5.15.
8. Nyāya-Vaiśesika system introduces the notion called *sādhāraṇakāraṇa* which means the cause of everything produced. It acknowledges a list of nine such causes: (1) *īśvara* (God) (2) *tajjñāna* (his knowledge) (3) *tadicchā* (his desire) (4) *tatkṛti* (his effort) (5) *kāla* (time) (6) *dik* (space) (7) *adṛṣṭa* (unseen factor: merit and demerit) (8) *prāgabhāva* (prior non-existence of the produced thing) (9) *pratibandhakābhāva* (absence of obstacles), Mehendale, *The Tarkasaṅgraha with the Dīpikā by Annambhaṭṭa*, 49.
9. "*buddhyādiṣatkaṁ sparśāntāḥ snehaḥ sāṁsiddhiko dravaḥ/ adṛṣṭabhāvanāśabdā amī vaiśesikā guṇāḥ//*," NSM, 90cd-91ab. The verse gives the list of 15 qualities called *viśeṣaguṇa*.
10. According to Praśastapāda, the first Vaiśesika commentator God creates the lord Brahmā and appoints him to create beings according to their past karma. PB, 19.
11. "*saṁsāre khinnānāṁ prāṇināṁ niśi viśrāmārtham*," PB, p. 18. Here Praśastapāda says that God destroys the universe "for giving rest at night to the beings tired in the process of transmigration."
12. Potter, *Encyclopedia of Indian Philosophies*, 101–102.
13. Udayana suggests this argument in NK, Chapter II.
14. Udayana's argument in NK (Chapter 3: p. 231) implies this.
15. "*kas tarhi śaśaśṛṅgaṁ nāsti ity asya arthaḥ? śaśe adhikaraṇe viṣāṇābhāvaḥ asti iti*," NK, 230.
16. Karl Potter, while referring to the negative ontological argument of Udayana, says, "It would seem that this line of argument, if it proves anything, proves too much, for by recourse to it we can refute any inference or *tarka* argument which purports to prove the non-existence of something" (*Encyclopedia of Indian Philosophies*, 109).
17. Moore,*Principia Ethica*, Chapter 1.
18. "*jagataṁ yadi no kartā, kulālena vinā ghaṭaḥ/ citrakāraṁ vinā citraṁ svata eva bhavet sadā//*" quoted by Mehendale, *The Tarkasaṅgraha with the Dīpikā by Annambhaṭṭa*, 30 (source unknown).
19. Translated by Patil, *Against a Hindu God: Buddhist Philosophy of Religion in India*, 59, from ISD.
20. "*vivādādhyāsitatanugirisāgarādayaḥ upādānādybhijñakartṛkāḥ; kāryatvāt; yad yat kāryaṁ tat tad upādānādyabhijñakartṛkaṁ yathā prāsādādi; tathā ca vivādādhyāsitās tanvādayaḥ; tasmāt tathā iti*," ISD, 40.
21. "*paramāṇvādayaḥ hi cetanādhiṣṭhitāḥ pravartante, acetanatvād vāsyādivat. anyathā kāraṇaṁ vinā kāryānutpattiprasaṅgaḥ*," NK, 401 (Translation by David, see NK, 404). This argument seems to be a cosmological version of Udyotakara's argument which will be discussed under "Moral Argument."
22. For my discussion of Dharmakīrti's concept of necessary relation, see Gokhale ("Three Necessities in Dharmakīrti's Theory of Inference"). Extreme empiricist Cārvākas would reject both Nyāya and Buddhist explanations of universal concomitance. For my discussion, see Gokhale, *Lokāyata/Cārvāka: A Philosophical Inquiry*, 67–71, 77–81.
23. Dharmakīrti makes this criticism through the expression, "*saṁśayāt*" in PV I.12. Ratnakīrti in ISD makes the objection more precise by stating that premise stating the universal relation of pervasion between "being a product" and "being caused by an intelligent agent" cannot be proved beyond doubt. According to him the Nyāya argument commits the fallacy called *sandigdha-vipakṣa-vyāvṛttikatvāt anikāntikam* ("Inconclusive due to the dubitability of the exclusion of reason property from dissimilar cases").
24. As Vasubandhu maintains, there are four causal conditions according to the Buddhist sutras: hetu (efficient cause), *ālambana* (object as cause), *samanantara* (immediately preceding cause), and *adhipati* (governing cause) "*sūtre catasraḥ pratyayatāḥ. hetupratyayatā, ālambanapratyayatā, samanantarapratyayatā, adhipatipratyayatā ceti*," AKB II.61. Generally, realist schools of Buddhism accepted this classification. On the other hand, Nāgārjuna in the first chapter of *Madhyamakaśāstra* rejected all the four *pratyayas*. Moreover, all the *pratyayas* cannot be defended in the Mind-only school of Buddhism.
25. The three types of causes are *samavāyi* (inherent cause), *asamavāyi* (non-inherent cause), and *nimitta* (efficient cause). "*kāraṇaṁ trividhaṁ samavāyi-asamavāyi-nimittabhedāt*," TrS, 15.
26. Buddhist criticism of the Vaiśesika atomism is multifaceted. Mind-only school of Buddhism denies the existence of atoms. Realists Buddhists accept their existence but question their eternality. They regard atoms as momentary. They deny the Vaiśesika view that a combination of atoms constitutes a composite whole (*avayavin*) which exists over and above the atoms.
27. This objection was suggested by Dharmakīrti by the expression "*dṛṣṭānte asiddhiḥ*" (Non-establishment of the intended target-property in the positive instances) in PV, I.12. The objection was elaborated by Śāntarakṣita in TS, 73–74.
28. Naiyāyikas give two different reasons for proving that there is only one God: (1) If there are many Gods then they will quarrel with each other and there will be a chaos. [Twofold answer is possible to this objection. First, it is not necessary that involvement of many agents causes a chaos. Many huge and complex constructions are brought about successfully by many agents collectively and cooperatively. Secondly it is not right to assume that this world is an ideal world and that there is no disorder in it.] (2) According to the law of parsimony (*lāghava*), it is not reasonable to accept many Gods when the world-creation can be explained by accepting one God. [A possible answer to this objection is: It is empirically more consistent to accept many non-omniscient agents rather than a single omniscient agent in

the case of a huge and complex products such as this world and empirical consistency is a higher principle than parsimony.]

29. *"tathā hi saudhasopānagopurāṭṭālakādayaḥ/ anekānityavijñānapūrvakatvena niścitāḥ// ata evāyam itasya vighātakṛdapīṣyate/anekānityavijñāna-pūrvakatvaprasādhanāt//,"* TS, 73–74.
30. *"īśvarādyanumānaṁ tu utpādya-pratīti,"* NM, Part I, p. 113 For a detailed account of the positivist epistemology of "more educated Cārvākas," see Gokhale, *Lokāyata/Cārvāka: A Philosophical Inquiry*, Chapter 4.
31. The difference between the criticism of positivist Cārvākas and that of the Buddhists is that the Buddhists, unlike Cārvākas, do not expect that a sound reason-property gives rise to the knowledge of the target-property which is empirically verifiable. They insist, however, that the reason-property should be necessarily related to the target-property.
32. Gaṅgeśa tries to defend the Nyāya position against this objection by saying that existence of body is not directly relevant to the agenthood of the potter in making a pot. His agenthood can be explained in terms of hands irrespective of body (*"hastādinā kartṛtvanirvāheṇa śarīrasyāprayojakatayā,"* TC, Part II, Vol. II, 55). The argument is unsatisfactory because hands do not function without the support of body. And even if they do, it would imply that God should have some physical mechanism such as hands though he may not have body. The problem will remain, as to who created this physical mechanism and how.
33. Udayana in the chapter IV of NK tries to argue for the view that God's knowledge is eternal and direct. The author of Dinakarī commentary on NSM, claims that God's knowledge, desire and effort are accepted as single and eternal on the basis of the principle of parsimony (*lāghava*): *"etādṛśānumitau lāghavajñānasahakāreṇa jñānecchākṛtiṣu nityatvam ekatvaṁ ca bhāsata iti nityaikatvasiddhiḥ,"* Dinakarī on NSM, 22.
34. Gaṅgeśa argues on this that God's knowledge, though eternal, can be the cause of the non-eternal world, because in general, an eternal thing can be the cause of a noneternal thing. For example, the eternal *ākāśa* causes sound, which is non-eternal. An ordinary soul, though eternal, causes cognition, which is non-eternal (TC, *Īśvarānumāna*, 84). The argument is not convincing particularly to the Buddhists according to whom a thing cannot cause anything without itself undergoing change.
35. *"siddhaṁ yādṛgadhiṣṭhātṛbhāvābhāvānuvṛttimat/ sanniveśādi tadyuktaṁ tasmād yādanumīyate// vastubhede prasiddhasya śabdasāmād abhedinaḥ/ nayuktānumitiḥ pāndudravyād iva hutāśane// anyathā kumbhakāreṇa mṛdvikārasya kasyacit kasyacit/ ghaṭādeḥ karaṇāt sidhyed valmīkāsyāpi tatkṛtiḥ//,"* PV, I.13-5.
36. *"dharmādharmāṇavaḥ sarve cetanāvadadhiṣṭhitāḥ/ svakāryārambhakāḥ sthitvā pravṛttes turitantuvat//,"* TS, 50.
37. *"mahata ṛgvedādeḥ śāstrasya….yoniḥ kāraṇaṁ brahma,"* BSB, 1.1.3.
38. *"athavā yathokam ṛgvedādiśāstraṁ yoniḥ pramāṇamasya brahmaṇo yathāvat-svarūpādhigame,"* BSB, 1.1.3.
39. Naiyāyikas define the power (*śakti*) of a word to refer to its meaning as God's desire: *"śaktiś ca padena saha padārthasya sambandhaḥ. sā cāsmāt śabadād ayam artho boddhavyaḥ iti īśvarecchārūpaḥ,"* NSM, 265.
40. "sargādau vyavahāraśca puṁsām anyopadeśajaḥ/ niyatatvāt prabuddhānāṁ kumāra-vyavahāravat//," TS, 51. (The linguistic practice of the persons in the beginning of the world must be caused by instructions given by someone, because it is a regulated practice of waking people, like the linguistic practice in the case of children.)
41. *"vimukhasyopadeṣṭṛtvaṁ śraddhāgamyaṁ paraṁ yadi/ vaimukhyaṁ vitaṇḍvena dharmādharmavivekataḥ//,"* TS,85. (The instructorship of a mouthless being, if accepted, can be accepted only on faith. God is without mouth because he is without body and that is because he is devoid of merit and demerit.)

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Cārvākism Redivivus

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1 INTRODUCTION

As a means of acquiring knowledge, the method of inductive inference has been proposed and critiqued in both Indian and Western philosophies. The method itself refers to a rather broad inference mechanism which is difficult to define in precise terms.[1] Loosely speaking, one may consider inductive inference to be a mechanism for inferring something about unperceived situations based on perceived information. A common example used in debates in Indian philosophy runs roughly as follows. Whenever one has seen smoke, upon inquiry one has also seen fire. In other words, all perceived scenarios of smoke have been associated with fire. From this, one infers that whenever there is smoke, there is fire. Consequently, if in the future one sees smoke, one may infer fire to be present. The inference from the perceived scenarios of smoke associated with fire to the general rule of smoke being always associated with fire is one form of inductive inference. Inductive inference can take a number of

different forms. In this note, we do not discuss the details of various forms of induction. A basic understanding of inductive inference will be sufficient for our purposes.

The issue of whether induction provides a valid means of acquiring knowledge has been debated in several important Indian philosophical works. Among the various schools of thought that existed in India, the Cārvāka (or the Lokāyata) school rejected induction as a valid means of knowledge acquisition. All the other schools, including those that believed in the authority of the Vedas as well as Jainism and Buddhism, admitted induction as a method for gaining knowledge. The Cārvāka view of denying induction was a minority view, while the vast majority of past Indian thinkers admitted induction. Even though it was a conflict of minority versus majority views, the dominant group considered it important to address the arguments against induction raised by the Cārvāka school of thought. The resulting debate is recorded in several important philosophical works.

The main work of the Cārvāka system is the Bṛhaspati Sūtra. For some unknown reasons, neither this work nor any other work of the Cārvāka school, except for the *Tattvopaplavasiṁha* by Jayarāśi Bhatta, have survived the vagaries of time. The Cārvāka views on induction are to be found in the works of philosophers who admitted induction as a valid means of gaining knowledge. Important among such philosophers are those belonging to the Nyāya and the Navya-Nyāya schools of thought. *Nyāyakusumāñjali* by Udayana of the Nyāya school and the later work *Tattvacintāmaṇi* by Gangesa of the Navya-Nyāya school are particularly important sources for the debate on the validity of inductive inference. These works first formulated the Cārvāka viewpoint on induction and then proceeded to counter the objections.[2]

The purpose of this note is to crystalize certain arguments arising in the Cārvāka-Nyāya debate on induction and argue how these relate to some modern notions. Below we first highlight the arguments of the Cārvāka-Nyāya debate that we consider in this note and then later we relate these to modern notions.

2 ARGUMENTS ARISING IN THE CĀRVĀKA-NYĀYA DEBATE

One of the authoritative texts on Indian philosophy is *A Sourcebook in Indian Philosophy*, by Radhakrishnan and Moore.[3] The book provides translations of the chapters discussing the Cārvāka view in the compilations *Sarvadarśanasaṁgraha* by Mādhava Ācārya and *Sarvasiddhāntasaṁgraha* by Śamkara as well as a translation of one chapter from *Tattvopaplavasiṁha*. Several arguments against causality can be found in the translation of the chapter from *Tattvopaplavasiṁha*. In this note, we do not consider such arguments.

Our identification of the arguments discussed hereafter is based on the translations from *Nyāyakusumāñjali* and related explanations provided primarily in the book by Chakrabarti.[4] In addition, we have also benefited from the books by Perrett and by Gokhale.[5] We note that not all the points mentioned below are complete arguments. Rather, they are fragments of ideas which can be found in the Cārvāka-Nyāya debate on induction.

CIRCULARITY IN JUSTIFYING INDUCTION

Very briefly, an argument for justifying inductive methods may be summarized as follows. Such methods have been successful in the past and so the use of such methods is justified for future applications. Putting aside the question of whether the success of the methods can be determined with certainty, assume that the methods have indeed been successful in the past. Concluding from such success that the methods will also be successful in the future is to apply inductive inference. So methods of inductive inference are being justified using induction itself. Consequently, this is a circular argument.[6] Much later, David Hume made the following famous observation in *A Treatise of Human Nature* (1738): "instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always uniformly the same." The point about circularity in justifying induction has been discussed quite extensively in the literature, and we will not consider this point further in this note.

We now turn to the task of identifying certain ideas in the Cārvāka-Nyāya debate appearing at several places in Chapter 1 of *Classical Indian Philosophy of Induction: The Nyaya Viewpoint*. To start with, consider the following passages, which explain how certain aspects of the Cārvāka argument against induction were described in the Nyāya literature. Some of the ideas that we discuss are spread across these passages and so it is convenient to first mention the passages and then discuss their content in a unified manner.

Passage 1:

> Cārvāka says: That which cannot be perceived does not exist. The opposite exists. God, etc., are not so; therefore, it should be better be held that these do not exist. It may be objected that inference, etc., will then be eliminated. But this is not unwelcome.
>
> Objection: But then common activities would be impossible. Reply: No. That can be carried out on the basis of expectation alone. Coherence is mistakenly thought to justify the claim of knowledge. (NK 334)[7]

Passage 2:

> When fire is actually found, does not that justify, because of coherence between what was previously expected and what is now perceived, that there is knowledge of fire, so that acceptance of inference as a source of knowledge is necessary? The reply is: no. Success of action prompted by expectation does not turn expectation into knowledge. But such success and coherence suffice to generate confidence in expectations and make them appear as knowledge. 'Appearing as knowledge' is all that is needed to account for such activities.

Passage 3:

> Rucidatta, who wrote the *Prakāśa* commentary on *Nyāyakusumāñjali* has described expectation as a doubt one side (koti) of which is stronger (utkata) than others (NK 334). If each side of expectation is equally matched, expectation would not lead to action. For example, when one sees smoke, one does not have any rational grounds for being sure that there is fire, but, may nevertheless have a strong expectation that there is fire. This is a doubt with two sides, viz., that (1) there is fire and that (2) fire is not there. But the two sides are not equally matched; the first is stronger than the second, for fire has been observed together with smoke on many occasions. Hence it may very well lead to action of procuring fire.

We identify four ideas which are embedded in the above passages.

DOUBT WITH MANY SIDES

The third passage talks about doubt with multiple sides. Further, it is suggested that the various sides of a doubt can be compared. Two such comparative scenarios are considered. The first scenario occurs when all the sides of a doubt are equally strong, and the second scenario occurs when one side of a doubt is stronger than the others.

FORMULATION OF HYPOTHESIS

In the first and the third passages, the word "expectation" is used in the sense that in the future one can expect to actually perceive the stronger side of a doubt. This expectation is based on prior perceived instances. In modern scientific terminology, one would say that a hypothesis is formulated based on observations, and this hypothesis is used to predict behavior.

EXPECTATION LEADING TO ACTION

The passages allow for the formulation of a hypothesis that would suggest what to expect in a given situation. Action can be initiated solely based on such expectation. In the smoke-fire example, based on perceived instances of fire being associated with smoke, one forms a hypothesis (or expectation) that whenever there is smoke, there is fire. If in the future, smoke is perceived, then this hypothesis is used to justify action leading to the search for associated fire. The search for fire is justified, but what is not justified is concluding that fire will certainly be present whenever smoke is observed.

POSITIVE VERIFICATION OF A HYPOTHESIS DOES NOT LEAD TO CERTAINTY

The argument in the second passage runs as follows. On seeing smoke, an investigation is done and fire is found. So there is knowledge of smoke since it is perceived, and there is knowledge of fire since it is also perceived after investigation. Since presence of fire follows by induction and the knowledge of fire follows from observation, it is argued that one has to admit induction as a valid means of knowledge. In contrast, the Cārvākas argued that confirmation of a hypothesis by a positive verification does not lead to certainty of the hypothesis.

We mention two other ideas arising in the Cārvāka-Nyāya debate which can be gleaned from various passages and discussions in *Classical Indian Philosophy of Induction: The Nyaya Viewpoint*.[8]

SINGLE VERSUS MULTIPLE OBSERVATIONS

It may be argued that multiple observations of the same phenomenon lead to certainty. The Cārvāka viewpoint argued that this is not the case. Generalizations provided by multiple observations could also be false. On the other hand, while certainty cannot be deduced from multiple observations, the Cārvākas did admit that positive verifications of a hypothesis generate confidence in the hypothesis.

PRESENCE OF HIDDEN FACTORS

Suppose two events are observed in a number of cases. From this, one may generalize that the two events are always present together. The Cārvākas forwarded the following counter-argument. It is possible that in all the observed cases of joint occurrences there are some other hidden factors. One could try to eliminate hidden factors by considering different setups where the two events occur together. The crux of the counter-argument is how can one be sure that all hidden factors have been eliminated? It is mentioned that the argument from hidden factors is not present in Hume's critique of inductive inference.[9]

3 RELATED MODERN NOTIONS AND ARGUMENTS

We mention some modern notions and arguments that can be considered to have been anticipated, admittedly in a primitive form, in the various ideas arising in the arguments of the Cārvāka-Nyāya debate mentioned in the previous section.

3.1 PROBABILITY

Probability theory provides a formal mechanism for reasoning about uncertainty. One may think that probability theory can solve the Cārvāka problem of induction. We make a short remark on this point at the end of this section. The main content of this section is to bring out connections of the Cārvāka considerations of uncertainty to certain aspects of probability and statistics. The relationship between the Cārvāka view and probability has been indicated in *Lokayata/Carvaka: A Philosophical Enquiry*,[10] though to the best of our knowledge, the explicit connections that are discussed below have not previously appeared elsewhere.

A key notion in probability theory is that of a random variable. Without getting into the formal measure theoretic definition of a random variable, let us try to understand this in somewhat more simple terms. Suppose there are several possible outcomes of a random experiment. For simplicity, assume that there are only finitely many such outcomes. To each outcome is associated a probability, and the sum of the probabilities associated with all the outcomes is one. A random variable expresses the idea that the possible outcomes occur with their associated probabilities. Encoding the outcomes by concrete labels (or numbers), one can think of a random variable as taking a particular value with a certain probability.

Consider now the idea of doubt with multiple sides which has been mentioned earlier. The notion of doubt is a clear reference to uncertainty. The uncertainty is regarding which side of the doubt will actually occur. In modern parlance, a doubt with multiple sides may be considered to be a random variable. The various sides of a doubt would correspond to the various outcomes of such a random variable with the implicit assumption that there are at least two such outcomes. A comparison between the several sides of a doubt has been suggested. In the language of random variables, this would correspond to comparing the various possible outcomes. It is suggested that each side of a doubt could be equally matched or that one side could be stronger than the others. A conceptual next step would be to find a convenient way to compare the various sides of a doubt. This naturally leads to assigning non-negative numbers to the various sides of a doubt and then comparing the numbers to compare the various sides of a doubt. Normalizing each of the numbers by the sum of all the numbers would lead to probabilities of the various sides of a doubt. Assuming for simplicity that there are finitely many sides, this would correspond to a random variable with finitely many outcomes. The probabilities assigned to the various outcomes would be the probabilities of the corresponding sides of a doubt. If the probabilities are all equal, then all the sides are equally matched. On the other hand, if one outcome has a higher probability than that of the other outcomes, then the corresponding side of the doubt would be stronger than all the other sides. The terminology of doubts with multiple sides and the suggestion that the sides need to be compared in some manner can be considered to have anticipated the quantification of uncertainty and by implication to have anticipated probability.

Based on empirical observations, a hypothesis is formulated. Confirmation of the hypothesis by further observations is supposed to increase confidence in the hypothesis. A hypothesis would be what has been called an expectation, which is a doubt where one side is stronger than the other sides. As discussed above, the various sides of a doubt can be interpreted as outcomes with probabilities. Confidence in a hypothesis can then be considered to be belief in the probabilities of the outcomes. On the other hand, if we consider observations as outcomes of random experiments, then confirmation of a hypothesis by repeated observations may be considered as a rudimentary form of the frequentist view of probability.

Analyzed from a modern perspective, there are certain difficulties and gaps in the aforementioned Cārvāka view of initiating action based on expectation. We consider some of these difficulties. According to the Cārvāka view, if one particular outcome is more likely than the others, then it is reasonable to initiate action based on this outcome. On the other hand, it is also suggested that if all the outcomes are equally likely, then no action is to be initiated. This last suggestion can be problematic as a probabilistic version of the Buridan's ass paradox exemplifies. There is another difficulty to this suggestion. In the smoke-fire example, if both fire and non-fire are equally likely, then is it reasonable to not search for fire? To answer this question, two costs need to be considered: the cost of searching for fire and not finding fire versus the cost of not searching for fire and fire being present. These are the costs of the two kinds of errors that can occur. Whether action should be initiated is based on the relative costs of the two kinds of errors. In the smoke-fire example, clearly the cost of the second kind of error is much larger than that of the first kind. So action should be initiated even if fire and non-fire are equally likely or, more generally, when there is some non-negligible chance of fire. In statistical terminology, this would be called hypothesis testing. Between the two scenarios of all outcomes being equally likely and one outcome being more likely than all others, there is a lot of middle ground. To take a concrete example, consider a scenario consisting of five possible outcomes out of which two are equally likely and both of them are more likely than the other three outcomes. The Cārvāka arguments do not address what to do in such situations. Another important issue is that of choosing between outcomes in the absence of any prior information. Considering all the outcomes to be equally likely is the principle of indifference which is known to have several problematic interpretations.[11] The issues mentioned in this paragraph are modern concepts, and the Cārvāka views about when to initiate action based on a hypothesis did not develop sufficiently to consider and address such issues.

Probability and its related subject, statistics, provide a modern way of understanding induction. This is succinctly captured in the following view expressed by Prasanta C. Mahalanobis (December 2, 1956): "Statistics is the universal tool of inductive inference, research in natural and social sciences, and technological applications. Statistics, therefore, must always have purpose, either in the pursuit of knowledge or in the promotion of human welfare." It is interesting to note the ethical contrast of this viewpoint to the supposedly sceptical and hedonistic outlook of the Cārvākas. As suggested in Perrett's *An Introduction to Indian Philosophy*, the hedonistic viewpoint of the Cārvākas may be seen as arising from their scepticism in the following manner.[12] Since knowledge (understood as something which is certain) can only be acquired through perception, and knowledge of God, soul, after-life, and other related notions cannot be acquired through perception, such notions cannot be held to be valid. The ethical consequence is that since any action in the present life is an end in itself, the notion of leading a pious life to be rewarded later through *mokṣa* stands invalidated. Consequently, this leads to the hedonistic viewpoint of enjoying worldly pleasures in this life itself. In contrast, once the view of knowledge as being something certain is dropped and knowledge is viewed as tentative and a guide to action, which is how the Cārvākas essentially viewed inductive inferences, the ethical viewpoint changes drastically. In the above quote, Mahalanobis claims that statistics is the universal tool of inductive inference. From this, he goes on to say that statistics must have purpose which implicitly underlines the point that inductive inference is vitally important for almost all spheres of human activity. So the hedonistic viewpoint disappears and is replaced by a sense of purpose in improvement of human welfare.[13]

We would like to point out that statistics does not solve the problem of justifying induction. A statement such as

"whenever there is smoke, there is an 80 percent chance of fire" is also a definite statement about uncertainty. The figure "80 percent" would have been arrived at by examining a number of occurrences of smoke and finding fire in 80 percent of these cases. In other words, 80 percent is based on perceived instances, whereas the statement that there is always an 80 percent chance of fire on seeing smoke refers to unperceived instances. So the statement goes beyond perceived instances to make a statement for all instances. As such, it is still an inductive inference and, hence, is open to the usual criticisms about such inferences. We note that there have been attempts to justify induction using probability theory.[14] A discussion of whether this has been successful is outside the scope of this note.

3.2 SCIENTIFIC THEORY

A dominant view of scientific theory is that any such theory is tentative. There is a huge literature describing various viewpoints regarding scientific theories. This is not the place to delve into the details of this literature. Instead, we will consider some expressions of modern views on scientific theories and try to relate these to some of the Cārvāka-Nyāya arguments.

Consider the following statement, which is attributed to Albert Einstein: "No amount of experimentation can ever prove me right; a single experiment can prove me wrong." This encompasses two of the Cārvāka-Nyāya arguments. First, it states that positive verification of a hypothesis does not turn a hypothesis into certainty, and second, multiple observations do not lead to certainty. While the above quotation is attributed to Einstein, it is not known for certain whether he actually mentioned it anywhere. The following authoritative assertion regarding the nature of scientific theories, on the other hand, is by Albert Einstein in Induction and Deduction in Physics (1919): "the truth of a theory can never be proven. For one never knows that even in the future no experience will be encountered which contradicts its consequences; and still other systems of thought are always conceivable which are capable of joining together the same given facts." This statement has traces of several of the Cārvāka-Nyāya arguments. The first part of the quotation refers to the fallibility of any hypothesis and that predicting the future from perceived instances is necessarily tentative. This part is similar to the previously mentioned statement which is attributed to Einstein. The second part of the quotation, on the other hand, provides a different connection to the Cārvāka-Nyāya debate. It is mentioned that there could be other possible explanations of the observed instances. This suggests a clear connection to the theory of hidden issues that the Cārvākas forwarded in their criticism of inductive inference. They argued that it is not possible to know with certainty that all hidden issues have been eliminated. Effectively, this means that some hitherto undiscovered issue can provide an alternative explanation of perceived instances, which is essentially the content of the second part of the above quotation.

From a modern viewpoint, whether the Cārvākas allowed induction as a valid means of knowledge would depend on what is meant by knowledge. One possible view of knowledge is that it is infallible.[15] The Cārvākas did not consider induction to lead to this notion of knowledge. On the other hand, they did admit that based on empirical observations, one can formulate hypotheses about the probable behavior of nature. In modern terminology this would amount to formulation of a tentative theory. Can the formulation of such a theory be considered acquisition of knowledge? Again, in the modern view, the answer would be yes. Then the Cārvākas did support the use of induction for knowledge acquisition.[16] To drive home the point about the tentative nature of scientific theories, we recall the following statement by Richard P. Feynman in *The Uncertainty of Science* (1963): "What we call scientific knowledge today is a body of statements of varying degrees of certainty. Some of them are most unsure; some of them are nearly sure; but none is absolutely certain."

3.3 PRAGMATISM

The idea that expectation leads to action can be considered to be a percursor of pragmatism. If one side of doubt is stronger than all other sides, then action prompted by this side is justified. So thought process is considered to be a tool for initiating action. The value of a thought process is determined by its applicability in justifying action. This is a pragmatic viewpoint that was anticipated in the Cārvāka arguments. Charles S. Peirce describes the pragmatic maxim in *How to Make Our Ideas Clear* (1878): "Consider the practical effects of the objects of your conception. Then, your conception of those effects is the whole of your conception of the object." In this sophisticated and abstract formulation, one can identify the germ of the idea in the smoke-fire Cārvāka argument which does not admit any further value to the inductive inference of "smoke implies fire" beyond its practical role of searching for fire on seeing smoke.

4 CONCLUSION

As part of their criticism of inductive inference as a method of acquiring knowledge, the Cārvāka viewpoint contains the vital idea of doubting and questioning entrenched beliefs. Unfortunately, this idea did not develop further in India. We mention the following views of two of the foremost intellectuals of the twentieth century to highlight the role of doubt in the development of human thought. Bertrand Russell in *Free Thought and Official Propaganda* (1922) wrote the following: "William James used to preach the 'will to believe.' For my part, I should wish to preach the 'will to doubt.' . . . What is wanted is not the will to believe, but the wish to find out, which is the exact opposite." About four decades later, Richard P. Feynman spoke along similar lines in *The Uncertainty of Science* (1963): "freedom to doubt is an important matter in the sciences and, I believe, in other fields. . . . If you know you are not sure, you have a chance to improve the situation. I want to demand this freedom for future generations." We end with the hope that modern day India will further develop the culture of raising well-reasoned doubts and pinpointed questioning which in the Indian context was pioneered by the Cārvākas in ancient times.

ACKNOWLEDGMENTS

We would like to thank Prasanta S. Bandyopadhyay for several stimulating discussions and email exchanges as well as for the encouragement to write this note. We thank the reviewers for providing constructive comments, which have helped in improving the paper.

NOTES

1. In this context, we note the following observation by Richard P. Feynman in *The Uncertainty of Science* (1963): "Extreme precision of definition is often not worthwhile, and sometimes it is not possible—in fact mostly it is not possible."
2. An extensive analysis of induction in Indian philosophy especially from the Nyāya point of view has appeared in Chakrabarti, *Classical Indian Philosophy of Induction: The Nyaya Viewpoint* (Lexington Books, 2010).
3. Radhakrishnan and Moore, *A Sourcebook in Indian Philosophy* (Princeton University Press, 1957).
4. Chakrabarti,*Classical Indian Philosophy of Induction*.
5. Perrett, *An Introduction to Indian Philosophy* (Cambridge University Press, 2016); Gokhale, *Lokayata/Carvaka: A Philosophical Enquiry* (Oxford University Press, 2015).
6. A similar circularity issue, though in a different form, was part of the Cārvāka-Nyāya debate and has been discussed in Chakrabarti, *Classical Indian Philosophy of Induction*, 8, 15.
7. Ibid., 2–3.
8. Ibid., 5, 7.
9. Ibid., 15.
10. Gokhale, *Lokayata/Carvaka: A Philosophical Enquiry,* 81–82.
11. See, for example, Howson, *Hume's Problem: Induction and the Justification of Belief* (Clarendon Press, 2003), chapter 4.
12. Perrett, *An Introduction to Indian Philosophy*, 90.
13. We refer to Chatterjee, *Statistical Thought: A Perspective and History*, and Sarkar, "Statistics and Induction," for further discussion on the connection between induction and statistics.
14. See, for example, the excellent discussion in Howson, *Hume's Problem: Induction and the Justification of Belief*.
15. For example, on page 81 of Gokhale, *Lokayata/Carvaka: A Philosophical Enquiry*, the following is mentioned: "When other schools accept inference as *pramāṇa*, they regard it to be a source of certain and indubitable knowledge." Further, on page 83, Gokhale talks about the "absolutist and definitive concept of knowledge accepted by other systems." There seems to be, however, a difference of opinion as to whether the other (i.e., other than the Cārvāka) schools of Indian philosophy considered knowledge to be something which is certain. One of the reviewers has pointed to several places in Perrett, *An Introduction to Indian Philosophy*, to support this view. In particular, on page 59, Perrett remarks: "The Naiyāyikas are fallibilists: they do not think that such inferences guarantee certainty, but they believe nevertheless that such inferences are generally reliable."
16. Chapter 4 of Gokhale, *Lokayata/Carvaka: A Philosophical Enquiry*, discusses the "mitigated empiricism" branch of the Cārvāka philosophy which accepts a form of induction as a valid means of knowledge.

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Some Critical Remarks on Kisor Chakrabarti's Idea of "Observational Credibility" and Its Role in Solving the Problem of Induction

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INTRODUCTION

The problem of induction arises when we make an inference about an unobserved body of data based on an observed body of data. The eighteenth-century philosopher David Hume has usually been credited to be the first philosopher to point out its significance in the Western tradition. In the East, however, the same problem dates back to the sixth century BCE's skeptical school known as the *Cārvāka* philosophy. Kisor Chakrabarti (hereafter Chakrabarti) has addressed this hard problem in his 2010 book, *The Classical Indian Philosophy of Induction: The Nyāya View Point*. By using classical Sanskrit texts and, whenever needed, reconstructing them in light of contemporary advances in epistemology and philosophy of science, he has tried to argue how classical Indian (Nyāya) philosophers are able to solve this problem. He has also delved into what is known as the new riddle of induction in the West to further show how Indian philosophers of the past should be able to handle it, although their approach need not always be nicely mapped onto their Western counterparts. The most impressive aspect of Chakrabarti's work is his ingenious attempt to reconstruct what we call the Gaṅgeśa-Chakrabarti (hereafter Gaṅgebarti) argument for the resolution of the problem of induction. This argument, we contend, does not pan out in the end, but is no doubt an innovative addition to the existing literature. In this way Chakrabarti's work clearly shows how one should make room for both East and West to meet and thus benefit from one another by means of a first-rate work in comparative philosophy such as this.

We focus on one of the devices introduced by Chakrabarti called the Observation Credibility (hereafter OC) and try to argue that it does not do the required task of resolving the problem of induction. In section 1, we summarize Chakrabarti's view of induction. In the next section, we present the OC as laid out by Chakrabarti. In section 3, we provide a counter-example which uses the same OC principle but leads to a faulty induction. Before we conclude, we briefly state in section 4 some problems in Chakrabarti's attempted resolution of the new riddle of induction.

1. INDUCTIVE INFERENCE ACCORDING TO CHAKRABARTI

The author defines inductive inference as *a* type of "nondeductive reasoning" in which the agent "generaliz[es] from particulars to the universal."[1] However, we think that

this definition does not provide necessary or sufficient condition for something to be called an inductive inference. To show that this characterization is not necessary, we need to show non-deductive inferences that move from particulars to particulars. The inferences made from particular facts involving evidence found at the scene of the crime to conclusions about the particular person who committed the crime are cases in point. Neither is his characterization sufficient. Consider the following example:

1. Donald Trump is currently President of the United States,

2. Therefore, Anyone who is not currently President of the United States is not identical to Donald Trump.

The above argument is an instance of inferring a general statement from a particular one and yet, not inductive.

However, the above defect does not pose any threat to Chakrabarti's treatment of the problem of induction as one could easily fix it. The distinction between deductive inference and inductive inference can be understood in terms of monotonic reasoning. Monotonicity is a property of certain types of inferences and is appreciated in terms of a deductive consequence relation. A relation between a set and a sentence is monotonic if and only if when it holds between a set and a sentence it also holds between any superset of the set and that sentence. A sentence is a deductive consequence of others when it is logically impossible that they should be true, but the sentence is false. To state it in terms of an argument, one can say that a type of reasoning is monotonic if and only if when an argument follows the deductive consequence relation described above, so do any arguments obtained by adding additional premises to that argument. Inductive inference underlies non-monotonic reasoning as adding a premise to a strong inductive argument could very well undermine its conclusion. In a crime situation, for example, if we come to know that a mad man, who otherwise has no criminal record, has walked into the crime scene recently, then this new piece of information would undermine the previous conclusion of that inductive inference as the crime scene could be compromised because of his walking there. In contrast, adding a new premise in the Trump example would not make us lose any information about the conclusion of the argument. So an understanding of the author's characterization of inductive inference in terms of non-monotonic reasoning would help us to stay focused on the author's primary contribution to the resolution of the problem of induction.

2. THE GAṄGEBARTI PROPOSAL TO ADDRESS THE PROBLEM OF INDUCTION

To set the stage for evaluating the Gaṅgebarti proposal to solve the problem of induction, we discuss, first, the Observational Credibility (OC) principle, which Chakrabarti introduces. According to this, "a factual claim that is backed by observation is preferable to one that is not."[2] A more generalized version of OC is (GOC): "a factual claim that has greater observational support is preferable to one that has less observational support."[3]

It would be helpful to know what "backed by observation" (or "observation support") and "is preferable" mean here. We will assume that observational support is always provided to generalizations and only by instances of those generalizations. We will also assume that "is preferable to" means something like "is more justified than."

Consider the following two general statements as these are the types of instances the Gaṅgebarti proposal is specially designed to handle.

(I) Wherever there is smoke there is fire.

(II) All cases of smoke are caused by cases of fire.

Humeans contend that there is no justification for either (I) or (II). The response the author offers on behalf of the Nyāya philosophy is based on the OC principle. The author, to demonstrate how his proposal works for the paradigmatic case of inductive inference, provides the following argument:

1. If smoke is present, then either it is produced by an aggregate that contains fire or is produced by an aggregate that excludes fire.

2. Smoke is present.

3. Therefore, either the smoke is produced by an aggregate that contains fire or is produced by an aggregate that excludes fire.

4. Here is a particular observation of smoke and fire. (This is an implicit premise of the argument the author uses.)

Chakrabarti contends that since the *Cārvāka* philosophers (and Humeans) buy OC (for example, we see for this particular smoke that it is produced not by an aggregate that excludes fire), it follows that

5. Smoke is produced by an aggregate that contains fire.

About OC, the author further writes that "as long as OC is accepted and it is also accepted that our particular observations are reliable, we should choose the former, i.e, smoke is produced by an aggregate that contains fire. Clearly the latter (i.e., the smoke is produced by an aggregate that excludes fire) is logically possible, but is nevertheless less acceptable than the former, for there is no observational support for the latter."[4] The following statement, we think, is crucial for Chakrabarti's argument as it is intended to show the connection between the above displayed argument and the two statements above (I & II). He writes, "accepting the alternative that smoke is produced by an aggregate that includes fire *favors accepting that fire is a constant casual condition of smoke and thus that the induction that wherever there is smoke there is fire is reliable*."[5]

On a previous page, Chakrabarti considers the disjunction "Either the smoke is produced by an aggregate that

contains fire or is produced by an aggregate that excludes fire" to be a logical truth. However, logically speaking, it is possible that the smoke is not produced at all, or that it is produced by something that is not an aggregate. Also, we take it that "smoke" refers to some particular smoke, and not "smoke" in general. If it refers to "smoke" in general, then it is perfectly possible, so far as logic is concerned, that some particular instances of smoking (including the smoke coming from the fire I see now) are produced in one way, and other instances (say, the smoke I see from the mountain across the valley), are produced in a different way, and yet other instances are not produced at all. The point is that if a universal claim is being made, as it is a statement about smoke in general, there are more ways for the claim to be false. Therefore, it is questionable whether the disjunction is a logical truth. In other words, we contend that Chakrabarti's reconstruction begins with the fallacy of false dichotomy.

3. COUNTER-EXAMPLE TO OC

As we saw in the previous section, OC plays a crucial step in justifying a generalization and hence in justifying causal relation between the mark and the probandum. However, following the same form of the above argument, one can generate another generalized inductive inference (containing claims about all the members of that class), although the inductive generalization should not be justified. Consider the below inference:

1. If bruises are present, then either they are produced by an aggregate that contains punching or are produced by an aggregate that excludes punching.

2. Bruise is present.

3. Therefore, either the bruise is produced by an aggregate that contains punching or is produced by an aggregate that excludes punching.

4. Here is a particular observation of bruise and punching. (OC)

5. Bruise is produced by an aggregate that contains punching.

Paraphrasing what the author has said before, we could say, similarly, that accepting the alternative that a bruise is produced by an aggregate that includes punching favors accepting that punching is a constant casual condition of bruising and, thus, that the induction that wherever there is bruise there is punching is reliable. However, as we know, bruises are also symptoms of aneurysm, which is an abnormal widening or ballooning of a portion of a blood vessel. Therefore, the inductive inference "all bruises are cases of punching" is false, and should not be justified, though the above inference technique proposed by the author seems to endorse this kind of inductive inference.

The natural response might be that our construal of the Gaṅgebarti reconstruction is mistaken because we have misapplied the OC in our own example. However, what is the OC principle? The readers would like to know more about the principle and how it could be justified. What the author seems to be saying about the principle is that if we see a table being green rather than yellow, then observation of its color is adequate to favor the hypothesis that the table in question is green rather than being yellow. We wonder how the data and hypotheses are being understood here if they are to exemplify the pattern that observational support is always provided only to generalization and only by instances of those generalizations. We have already pointed out that we are yet to have a proper grasp of what is meant by "observational support." Do we understand the observation to be "The table is green at this instant" and the hypothesis to be "The table is green for all instances within some contextually specified range"? That would make them fit the form to which we have just referred. Or is the data something more like "We are having tablish sense data now which are green"? Then they would not be an instance of the pattern we indicated. Unless a more clear understanding is forthcoming about the OC, it is hard to understand its role in the Gaṅgebarti reconstruction and what has gone wrong with our alleged counter-example to the latter.

Another possible response to the counter-example takes us to Chakrabarti's distinction between "how inductions are justified and how inductions are grasped." The above counter-factual reasoning and OC are tools to justify induction. However, to grasp an induction there must be "(1) observation of co-presence so long as (2) a counterexample is not observed and so long as (3) one is not doubtful about the presence of an unobserved counterexample. Both observation of an actual counterexample and the fear that there is an unobserved counterexample are obstructions (*pratibandhaka*) to induction."[6] Using this, it may be said that presence of aneurysm was a pratibandhaka which resulted in the faulty generalization. However, the concept of *pratibandhaka* seems to be analogous to the "ceteris paribus" clause, using which one can say "X is the cause of Y unless there is *pratibandhaka*" (analogous to "X is the cause of Y all else remaining equal"). This in turn leads to the possiblity of rival hypotheses to be equally justified. For example, H1: "Bruises are caused by punching, unless there is no *pratibandhaka*," and H2: "Bruises are not caused by punching, unless there is no *pratibandhaka*." Hence, the inclusion of the "*no pratibandhaka*" clause seems to be vacuous.

It may be further argued, as Chakrabarti does, that among the possible hypotheses, one must choose the one which has more economy (*lāghava*). Chakrabarti discusses three types of economy: "economy in cognitive link or order (*upasthiti*), economy in relationship (*sambandha*) and economy in constitution (*śarīra*)."[7] Of these, the second one (*sambandha*) applies in this case. According to this, "Of two necessary antecedents (or equally matched hypotheses) the one that is more directly related to the effect (or the explanandum) is more economical."[8] The example given is that of a wheel being a more direct cause for a pot than wheelness. However, in our counter-example, one cannot say that punching is more immediate a cause for bruises than aneurysm. So this counter-response also fails to save the faulty induction.

4. THE OLD AND NEW RIDDLES OF INDUCTION

In Western epistemology, the distinction between the two riddles is clear. In case of the old riddle of induction, the inference from all observed cases to all observed and unobserved cases is not justified, and that is what is known as the problem of induction. The author has shown originality in handling the problem. Consider the new riddle of induction. It assumes that there is a solution to the problem of induction and from there we could still arrive at two mutually incompatible but equally supported hypotheses: all emeralds are green and all emeralds are grue. Here the predicate "x is grue" is defined as "x is observed to be green and it is the year before t or x is observed to be blue and the year is equal or greater than t." Since this way, one could come up with infinitely many incompatible hypotheses consistent with the data, the grue-paradox is also known as the problem of "too many theories" contrasted with "too much evidence" with regard to the raven paradox. Though it is unclear whether Chakrabarti treats these two paradoxes separately, he gives us Gaṅgeśa's version of the grue paradox. Imagine a property called disni, which is defined as "not being either the inferential subject or a negative instance."[9] Now, any place which is reliably known to be the locus of fire (probandum) before the inference is also the locus of disni (because it is neither the inferential subject, *pakṣa* nor *vipakṣa*). That is, disni pervades the probandum. However, if this is the case, then the inferential subject, which is not the locus of disni (by definition) cannot be the locus of the probandum (because disni pervades the probandum, the absence of disni entails the absence of probandum). Hence, the hill cannot be fiery. This contradicts our reliable induction that wherever there is the mark, the probandum also exists and that there is the mark (smoke) observed on the hill now.[10] He applies the belief-behavior contradiction theme discussed in many parts of the book to address both paradoxes. According to this, if an agent believes that food does not nourish her, yet she still keeps on eating food for nourishment, then there is a contradiction between her belief and behavior.[11] This, according to the author, should be counted as a strong argument that induction is justified as well as the green hypothesis. We just wonder whether anyone disputes the theme; consequently, this can be used to question the skeptical challenges to inductive inference of both types: the new and old riddles of induction.

However, the force of the skeptical arguments regarding inductive inferences does not go away because of the invocation of the belief-behavior contradiction. The force of the skeptical argument lies elsewhere. Both skeptical arguments regarding both types of induction involve the question about whether those hypotheses are logically possible. Since they (i.e., the Sun might not rise tomorrow or all emeralds are grue) are logically possible, none of the responses offered by the author including the belief-behavior contradiction is able to put any dent to the skepticism in question. In addition, if the author really thinks that the belief-behavior contradiction addresses the new riddle of induction, then his principle of OC does not endorse choosing either of the hypotheses in the green-grue controversy. We would like to hear his response to the question that if we go by the belief-behavior contradiction, then we, according to him, should choose the green hypothesis. However, if we go by the principle of OC, then we should in no way favor the green hypothesis over the grue one because there is no observational evidence that would help us to favor one over the other.

SUMMING UP

We have presented Chakrabarti's idea of Observational Credibility in this paper and examined its role in solving the old and new riddles of induction. Though a novel attempt has been made by Chakrabarti in reformulating the Navya-Nyāya response by using contemporary language, we raised some key concerns about it. We noted that it allows for certain cases of induction to be counted as valid inferences though they should not be tagged so. We also saw that one method of resolving the problem of induction using the OC principle runs into conflict with the belief-behavior method of resolving it. There is no doubt that the problem of induction was well recognized by Indian philosophers much before Hume and that they tried to provide innovative solutions to the problem. These solutions need to be brought into and discussed in mainstream philosophy. Chakrabarti's work has definitely set the tone for such a dialogue, and we hope that our remarks will prompt further comments and research into this area.

ACKNOWLEDGMENTS

Both authors would like to thank John G. Bennett for his comments on an earlier draft of the paper.

NOTES

1. Chakrabarti, *Classical Indian Philosophy of Induction: The Nyāya Viewpoint*, 1.
2. Ibid., 36.
3. Ibid.
4. Ibid.
5. Ibid.; emphasis added.
6. Ibid., 160.
7. Ibid., 49.
8. Ibid.
9. Ibid., 72.
10. Strictly speaking, there is a difference between the logical structure of grue-paradox and disni-paradox, and Chakrabarti is aware of this (ibid., 73). However, the common feature he sees in both is "some possible gap in the generalization formula."
11. Ibid., 65.

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Some Thoughts on the Problem of Induction

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I am happy for the opportunity to offer a few clarifications in response to some very interesting observations made by Prasanta Bandyopadhyay and R. Venkata Raghavan ("Some Critical Remarks on Kisor Chakrabarti's Idea of 'Observational Credibility' and Its Role in Solving the Problem of Induction," in this issue) targeted at supplementing, improving, and critiquing some viewpoints in my book entitled *Classical Indian Philosophy of Induction: The Nyaya Viewpoint* (Lexington Books, Rowman and Littlefield, New York, 2010). Bandyopadhyay and Raghavan have graciously acknowledged that there is originality in my work in dealing with the classical problem of induction, that my work is an innovative addition to the literature on the problem of induction and shows how both the East and the West could profit from philosophical dialogue and exchange. Since time is very limited, I am selective in my comments.

The problem of induction involves the question whether our past and present observations of some cases can make general claims about all cases, past, present, and future, reasonable and acceptable. I have offered an account of inductive reasoning as follows: "induction is sometimes used in a broader sense to include virtually any nondeductive reasoning; but we use it in the basic sense of generalizing from particulars to the universal."[1] What is offered here is a description of the basic or the most important sense in which I use induction in my book. A description like this is not a definition and makes no claim to provide necessary or sufficient conditions for induction.[2] Such a description is still useful for the main theme of my work and is consistent with philosophical practice.[3]

Would it be appropriate to distinguish deductive inference from inductive inference with the help of monotonicity?[4] In this connection one should keep in mind that our main context is Nyaya logic in which a kind of reasoning called *nyaya* plays a very important role. A *nyaya* involves inductive reasoning as well as deductive reasoning. An account of such reasoning is provided in my *The Logic of Gotama* (University Press of Hawaii, Honolulu, 1978, chapter III). In the deductive core of a *nyaya*, the conclusion follows necessarily from the premises, but no irrelevant premises are permitted.[5] Since monotonicity allows for irrelevant premises, that is problematic from the perspective of Nyaya logic. Irrelevance is also a serious problem for relevance logicians like Anderson and Belnap.[6] Further, Aristotle defines a syllogism (in part) as an argument with two premises. In the words of Aristotle: *Sullogismos de esti logos en ho tithenton tinon heteron ton keimenon ex anagkes sumbainei to tauta einei* "a syllogism is an argument in which something different from two things being said follows necessarily from their being so"; my translation.[7] It is also required that in a categorical syllogism any two sentences must share a term. The formal syntactic requirements in a categorical syllogism preclude irrelevant premises, and monotonicity is problematic for categorical syllogism as well. Thus, monotonicity that makes room for irrelevance is not the most suitable characterization for deductive arguments for many logicians, ancient and modern. Again, it may be possible that there is a degree of continuity and affinity between deduction and induction as well as analyticity and syntheticity.[8] Under the circumstances, I prefer not to bring in non-monotonicity to describe induction and would like to stay with my account of induction for the purpose at hand, which is to explore whether inductions in the sense of generalizations from some observed cases to all cases is justified.

Now I move on to a matter of substance. Take the induction that all smoky things are fiery. An argument in its support that I have developed following the lead of Gangesha, a great Navya Nyaya philosopher, is the counterfactual reasoning (CR: *tarka*) as follows. If smoke were produced neither by an aggregate that includes fire nor by an aggregate that excludes fire, smoke would not be produced. (For the Nyaya 'produced' means something nonexistent coming into being regularly and indispensably preceded by an aggregate of causal conditions.[9]) But smoke is observed to be produced. Thus, the consequent of the above conditional is false, and the antecedent too is false. It follows that smoke is produced either by an aggregate that includes fire or by an aggregate that excludes fire. Now we have two conflicting factual claims: (a) smoke is produced by an aggregate that includes fire and (b) smoke is produced by an aggregate that excludes fire. Nyaya philosophers are empiricists and so are both Carvaka and Hume. A fundamental principle of empiricism is that of two factual claims, one with observational support is preferable to one without observational support. This may be called the principle of observational credibility (OC). While OC and empiricism in general may be challenged, OC should not be rejected by empiricists like Carvaka or Hume. In the above case (a) has observational support. From the Nyaya perspective both particular smokes and particular fires are substances that may be directly perceived and so also that a particular smoke comes into being where the smoke is nonexistent before and where the aggregate including fire is present before the origin of the smoke.[10] Given OC, (a) should be accepted that implies that some smoky things are fiery that is consistent with the induction that all smoky things are fiery and is the contradictory of that no smoky things are fiery.

That some smoky things are not fiery is still logically possible. However, the acceptability of a factual claim is not based on logical possibility alone but further, for empiricists, on observational support. Since (b) has no observational support, it should not be accepted and nor also, given OC, that some smoky things are not fiery. In other words, compared to (a), (b) is more complex and has introduced the additional operator of negation without evidence. The point here is not that (b) is more complex

and that makes it unacceptable. Rather, the point is that (b) makes a claim that is without evidence and that makes it unacceptable. Suppose smoke is observed to be produced by an aggregate that is without fire and not by an aggregate that includes fire. Then (b) would be acceptable and not (a), for the latter then would make a claim without evidence. The underlying principle of reason is that of two claims the one with evidence is preferable to the one without evidence. This may be called the principle of evidential credibility (EC) and it underlies OC. Of course, both (a) and (b) are logically possible, and they are equally matched in that respect. What gives (a) more weight than (b) and makes it acceptable and not (b) is that there is evidence for (a) while there is no evidence for (b). Under the circumstances, if one insists that both (a) and (b) are equally acceptable, one deserves to be ignored just as one who continues to claim that crows have teeth merely because that is logically possible, although crows are observed not to have teeth deserves to be ignored.[11] It is thus clear that acceptance of (a) may be based on such principles of reason as OC or EC and not always on instinct or habit as Hume claims. Ironically, in claiming that the choice of (a) is always based on instinct or habit and not on reason, Hume implicitly relies on induction that, according to him, is irrational.

That smoke is produced by an aggregate that includes fire implies from the Nyaya perspective that fire is a necessary antecedent of smoke and thus that all smoky things are fiery. Both Carvaka and Hume reject causality. How causality should be understood and may be defended is indicated in my book.[12]

In the above argument smoke and fire may be replaced by other effects and causal conditions, respectively. In this way it provides a general framework for a reasoning in favor of causally based inductions.

Now consider the following argument. If bruises were produced neither by an aggregate that includes punching nor by an aggregate that excludes punching, bruises would not be produced. But bruises are observed to be produced. So either (c) bruises are produced by an aggregate that includes punching or (d) bruises are produced by an aggregate that excludes punching. Given OC (c) should be accepted and also that bruises are always caused by punching. This, however, is false, for bruises may sometimes be caused by aneurysm. Is this a counter-example to the above argument?[13]

The answer is no. Bruises caused by punching are not exactly the same as bruises caused by aneurysm just as deaths from drowning or poisoning or suffocation are not exactly the same as I have pointed out in the discussion of causality.[14] Deaths from drowning leave marks on the body that are different from the marks from poisoning, etc. and from this the specific causal condition of death may be determined to the exclusion of others; this is widely used in criminal investigations. Thus, deaths from drowning may be said to be of different kinds from deaths from poisoning. In the same way, bruises from punching leave marks (say a, b, c, and d) on the body that are different from marks (say b, c, d, and e) from aneurysm and from this the specific causal condition of bruise may be found to the exclusion of others. Accordingly, if bruises are specified as bruises with marks a, b, c, and d, in the said argument, the resultant induction would not be false. Thus, the issue may be resolved with the help of heterogeneity of effects (*karya-vaijatya*). Alternatively, if homogeneous features are found in all effects under consideration, homogeneous features may also be found in all the causal conditions (*karana-eka-jatiyatva*). In the given case, instead of punching, aneurysm, etc. the common causal condition of all bruises could be determined in terms of the common features of punching, aneurysm, etc. If punching were replaced by such common features, the relevant induction would not be false. Close attention to specific features is needed for inductions like "all smoky things are fiery" as well. Here, too, smoke should be appropriately specified to be distinguished from similar phenomena like vapor that may not be caused by fire; without proper specification the induction would be false.

It may be asked, is the counterfactual conditional "if smoke were produced neither by an aggregate that includes fire nor by an aggregate that excludes fire, smoke would not be produced" a logical truth?[15] Gangesha himself has mentioned that this conditional may be challenged by supposing that smoke is unreal and does not exist or that smoke exists but is uncaused, and so on, and how this may be addressed.[16] Thus, the truth of the said conditional depends in part on the logical structure and in part on general intuitions about the nature of causality.[17]

In the above counterfactual conditional, smoke and fire may be replaced by other effects and causal conditions, respectively, but not by others that are not so related. For example, the following is not a proper substitution: if smoke were produced neither by an aggregate that includes a hundred rupee note nor by an aggregate that excludes a hundred rupee note, smoke would not be produced. Here, fire is replaced by a hundred rupee note that is not a causal condition of smoke. Now the denial of the consequent implies that smoke is produced either (g) by an aggregate that includes a hundred rupee note or (h) by an aggregate that excludes a hundred rupee note. Neither (g) nor (h) has observational support and neither is acceptable.

Now, the CR with the counterfactual conditional is useful for inductions where the pervaded and the pervader are related as the effect and a causal condition, respectively. In some other inductions where the pervaded and the pevader are not so related, the CR may be used in a different way. Here, instead of the counterfactual conditional, the CR starts with the supposition that a favorite induction is false and shows that such supposition leads to an undesirable consequence.[18] The CR is needed to address the doubt about the reliability of the induction. In the words of Gagesha: *anukula-tarka-abhavena …vyapakatva-anishcayat sahacara-darshanadeh samshayakatvat* "without supportive CR there is no certainty of pervasion, for observation of positive instances, etc. leaves doubt (about pervasion)"; my translation.[19] Now take the induction that all emeralds are green and suppose that it is false. Then there would be an emerald that is not green. If there were such an emerald, it would not complement red, for only green complements red. Under the circumstances, if the said emerald were

observed to complement red, that would go against and weaken the supposition that the said induction is false and thus strengthen the induction and make it acceptable and not its denial. Since in this argument what is accepted as a fact is willfully supposed not to be so (*aharya-njana*), this argument, too, is considered to be counterfactual reasoning. Once again, the clincher is lack of support from observed evidence. All observed emeralds are known to complement red. (In the Nyaya view, an emerald is a substance that may be directly perceived and so also the green color and that it complements red.[20]) Since all observed emeralds are known to complement red, there is no observational support for the factual claim that there is an emerald that is not green. The skeptic might harp on that this is still logically possible and that is accepted by the Nyaya and other pro-inductionists. But, as already said, mere logical possibility does not suffice to make a factual claim acceptable; additionally, at least for empiricists like Carvaka and Hume, a factual claim, to be acceptable, should also have observational support as it is enshrined in OC. Thus, OC plays a valuable role in the present case as well. It is worth noting that besides the condition that a given induction may be acceptable if assumption of its denial leads to an undesirable consequence,[21] some other conditions are that there should be corroboration from observation of positive instances or observation of negative instances and non-observation of any counter-instance.[22]

A similar argument may be developed to address the new riddle of induction and the "grue" paradox, a variant of which was discussed by Gangesha and others.[23] In the classical problem of induction, the issue is whether any induction is rational in the face of the charge of circularity, and so on. In the so-called new riddle of induction, the issue is whether any induction is rational if for any induction there is always a rival induction that appears to be equally confirmed by the same inductive evidence while the rival induction makes a conflicting prediction. Take again the induction (e) that all emeralds are green and then take the induction (f) that all emeralds are grue where something is grue if and only if it is observed to be green until now or will be observed to be blue afterwards (an indefinite number of such concocted predicates are possible). Clearly, both (e) and (f) may appear to be equally confirmed by observed evidence, though they lead to conflicting predictions: given e), the next observed emerald is green; given (f), the next observed emerald is blue.

I have argued that the above predicament may be addressed with the help of CR involving undesirable consequence.[24] If we assume that (e) is false, the next observed emerald may not be green and then would not complement red. This has the consequence that if the next emerald is observed to complement red, that would conflict with assuming that (e) is false, and this would add more weight to accepting (e). Now assume that (f) is false; then the next observed emerald may not be blue; but there is no conflict now if the next emerald is observed to complement red, for something not blue may complement red. This breaks the deadlock from the appearance that both (e) and (f) are equally confirmed by the same observed evidence. By exploring the consequences of supposing that they are false, we see that there is a scenario where observation may strengthen one but not the other and that one may be acceptable and not the other. Once again, the clincher would have to come from observation showing that one has observational credibility and not the other; accordingly, OC plays a crucial role in this case as well.[25]

As I have said, I have provided an outline of the Nyaya justification of induction that may be a stepping stone towards a deeper and more comprehensive study.[26] Without any doubt, perusal of the extremely subtle analyses and ramifications, especially the brilliant critiques of their own views by the Nyaya philosophers themselves, would be productive and relevant for contemporary philosophy. Nyaya philosophical works display exemplary originality, clarity, and rigor; studying them in the original is necessary for proper understanding and discussion. I hope that this small effort will generate more light than heat and pave the way for a groundbreaking study of one of the great philosophies of the world.

NOTES

1. *Classical Indian Philosophy of Induction: The Nyaya Viewpoint* (CIPI), 1.
2. Prasanta Bandyopadhyay and R. Venkata Raghavan (PBVR) have taken my account of induction as a definition and pointed out that it does not provide necessary or sufficient conditions (31).
3. Aristotle speaks of definition (*horos*) in the strict sense that provides necessary and sufficient conditions and states the essence of the definiendum and other kinds of useful definitions that do not state the essence and need not provide necessary and sufficient conditions. See "Aristotle's View of Definition," in my *Definition and Induction* (DI) (University Press of Hawaii, 1995). Nyaya philosophers too speak of definitions (*laksana*) that provide necessary and sufficient conditions and acknowledge that a provisional definition or a description (*varnana*) need not provide necessary and sufficient conditions. For example, although they are too narrow, five accounts of pervasion (*vyapti*) are clarified with great rigor and precision in the *Vyaptipancakarahasyam* of Mathuranatha, Kashi Sanskrit Series no. 64, Chowkhamba, Varanasi. See "The Nyaya View of Definition" in DI.
4. This is suggested by PBVR, 31.
5. Irrelevance (*aparthakatva*) is a ground of defeat (*nigrahasthana*) in early Nyaya (*Gautama-sutra-vrtti*, Kolkata, 1928, 5.2.10 and is included as *vyarthatva* under the fallacy called *asiddha* (unsubstantiated) in later Nyaya (*Siddhantamuktavali* with five commentaries (SDM), ed. C. S. R. Shastri (Delhi: Chaukhamba Sanskrit Pratisthan, 1988), 536–37.
6. A. R. Anderson and N. D. Belnap, *Entailment*, Vol. 1 (Princeton University Press, 1975).
7. Aristotle,*Prior Analytics*, ed. W. D. Ross (Oxford, 1974), 1.
8. As I have pointed out in CIPI, 38, 62.
9. SDM, 189–212.
10. For an account of the Nyaya position see my *Classical Indian Philosophy of Mind* (State University of New York Press, 1999), Introduction; Kisor K. Chakrabarti, "The Truth about Perceptual Error," *Essays in Indian Philosophy* (Kolkata: Allied Publishers, 1997); and B. K. Matilal, *Perception* (Oxford: Clarendon Press, 1986), chapters 6 and 7.
11. CIPI, 41–42.
12. CIPI, 42–53.
13. PBVR, 32–33.
14. CIPI, 51.
15. For a related question, see PBVR, 33.
16. CIPI, 131–32.

17. CIPI, 36; also see CIPI, 129.
18. CIPI, 78.
19. Gangesa, *Tatttvacintamani* with *Mathuri*, ed. K. N. Tarkavagisa, vol. 1 (Delhi: Motilal Banarassidas, 1974), 355.
20. SDM, 189–212.
21. For undesirable consequences see CIPI, 49–62, 78.
22. CIPI, pp. 3–9, 73, 78.
23. CIPI, pp. 71–80.
24. Ibid.
25. I disagree with PBVR that OC does not favor either induction in the green-grue case (33). Considerations of economy that may involve observation pointing to the importance of OC may also make one hypothesis preferable to the other in the green-grue case (CIPI, 78–79).
26. CIPI, 67.

PHILOSOPHY OF LANGUAGE AND GRAMMAR

Remnants of Words in Indian Grammar

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In Indian philosophy, the import of word is intimately connected to the question, "what sort of an entity does the importation of a word stand for?" We see the principle that makes an inextricable relation between words and meanings. The word is a primary constituent that constructs a sentence, and people understand the meaning of a word throughout the sentence holism (corporate body of words). This thesis contrasts with meaning atomism, where the representation of words seems semantically atomic or relies on the particular word, not to the whole sentence. The primacy of word sets for an object, and the meaning of the particular word can be derived from the object it stands for.

Jātiśabda (the general/nominal term), the earlier trend of the Indian philosophy of language, instigates a kind of relation between two rival groups—*Vyakti-śakti-vāda* and *Jāti*-śakti-vāda—or, more precisely, a debate pertaining to the meaning particularism versus the meaning generalism from the sense of determining the reference of the general term. *Vyakti-śakti-vādin* asks for a descriptive approach of the singular term by considering that the meaning is correlated to the nominal object. In our practical purposes when we strive to fix the reference, then we always prefer to denote the individual instead of an imperceptible universal. In the context like "The horse is dying," here the reference of the horse is metonymically recognized by the particular horse, not by its genus. The Jāti-*śakti-vādin* argues that the purport of connotation of a word lies in an individual that is determined by a universal. This riddance of the individual to comprise into a universal domain can be drawn by an example like "The dodos are becoming extinct." We can properly understand the meaning of the whole sentence if we look over the predicate term and its coherence relation to the subject term, i.e., "dodo" bird. The property of possession (extinction) of generic birds like "dodo" in our example is going to be extinct bird. This distributive predicate successfully merges not in the individual bird itself like a "dodo," but collaborately encodes the genus of the bird in general. The truth value of the proposition relies on the collective value of the predicate qualified by the universalistic sense or properties.

Here, the key concern is whether the word itself provides foundation of universal or something else. I think this sort of the metaphysical analysis of linguistic terms ensue a debate in Indian philosophy of language that is highly valued by the grammarians. The *Vyakti-śakti-vāda* delimits a word in terms of the particular term by following a realistic view (the conception of referential expressions makes sense here). *Jāti-śakti-vāda* contends that the import of the word is in no way similar to a particular; actually, it is "the universal in pursuance of laws of logical parsimony."[1] Ganeri clarifies, "For clearly one might be a referentialist about definite description without being so about indefinite descriptions; likewise, one might be a referentialist about generic uses, but not about non-generic uses."[2] The Nyāya-Vaiśesika and the Mīmāṁsakas, the realist schools of Indian philosophy, emphasize on a sentence that may be affirmative or negative but have a realistic stand (reference) to the object. The school gets rid of the thesis of an individual edifice of reality that gets closer to the conceptual schemata. Let us see the problem from a different level. My point is to understand the conceding approach of connecting words with ontological categories. Simply, the concern is how does the particular term "cow" categorically connote the universal "cowhood"?

WORD-MEANING INTERACTION

Kumārila underpins the debate in connection to the word-essence, which apprehends the meaning of a word that can be impeded only if different speakers failed to identify the particular word, since the identity of the word looks like a pointer that specifies the existence of a simple word-unit. In the case, like "the cow is standing up," a hearer can understand that a speaker may talk about a particular *cow* instead of *cow genus*. Here, the popular use assumes the basic identity of the word and meaning as an unwanted premise. The principal understanding of *Mīmāmsāsutra*, I think, deciphers the universal as an exclusive connotation that can only concern about eternal words since the efficiencies are not only associated with the individual word like *cow* (determinatum) but similarly to self-same word *cowhood* as a universal that looks as determinant. The law of parsimony defines the comprehension of universal that can treat individual as a substratum and could be deduced from the indication (*lakṣaṇā*). Let us take an example. The sentence "the smoke is burning" remains nonsensical until the predicate term "burning" cannot be construed by the subject term "smoke" or similarly by "fire" since an inference takes a prominent place here to deduce the latter from the former. The naturalism that is preserved by Mīmāmsā hinges a sort of non-convention-based language as a key tool that has a universalistic appeal. Besides, the logic that Mīmāmsākas inculcate in defense of their thesis is an amalgam of universal with the nuance of language.

However, Navya Nyāya aims to criticize both the opinions (the meaning particularism and the meaning generalism). As we know, Gautama (*Nyaya-Sutra*, 2.2.66) articulates the meaning of a word in the sense of particular (*vā*kti), form (*akṛti*), and universal (*jāti*). Gautama barely stresses on the concept of form while he hints at a particular as qualified by universal. Early Naiyāyikas believe in the connotation of a particular term that not only resides in the universal but also to the qualities, actions, and the substance as a configuration from a holistic scheme. This theory assigns integrity between the perceptual contents with the conceptual cognitions. If we only put the conceptual cognition as a prime configuration of the connotation of a particular term (like mango), then the taste of mango should not be cognized though the quality or the universal aspect of sweetness or sourness of the particular mango but by the perception of the content of mango that is cognized by *rasana* (palate) only.

Nyāya philosophy enhances the sense of public meaning as a sharable concept. The public meaning can precede the context of a speaker's belief since the word meaning is derived from the realm of sentence meaning that relies on the public sharability of meaning. Navya Nyāya resists this particular method to underline Kumarila's position on the meaning of a word that could be impeded in relation to the number of speakers who may fail to recognize the particular word, since the identity of the word as a pointer denotes the existence of a particular word instead of the genus. However, Navya Nyāya's stance (semantic holism) looks promising since they consider that the meaning of a sentence is a unified relational corpus, whereas the word cannot set as an individual component. The other schools treat the meaning of a word as a nonlinguistic entity, but the grammarians first emphasize the meaning of a word as a linguistic symbol.

COLLAPSE OF CONVENTIONALISM

In Vaiśeṣika philosophy, we notice that the relation between words and meanings is regarded as a matter of convention, and Nyāya accepts this hypothesis strongly. However, Patañjali looks at Kātyāyana's *Vārttika* that instigates an eternal relation of word-meaning by discarding the sense of conventialism like Mīmāmsā. Patañjali's *Mahābhāsha* indicates that a universal seems one and it can be expressed by a word through the power of denotation (*Ekā ākrtih, sā cā bhidhīyate*). We can know this eternal nonderived linkage between the word and the meaning through people's invariable behaviors. Matilal clarifies, "People are seen to be using words to convey meaning, but they do not make an effort to manufacture words. . . . Jaimini in his Mīmāmsāsutra, 1.1.5 says that the relation between word and meaning is 'non-derived' or 'uncreated' (*autpattika*). Both Jaimini and Katyayana (see above) used two rather difficult words, autpattika and siddha, which do not have any transparent sense."[3]

Mīmāmsākas might insinuate this problem in two different senses:

a) Let us consider a word "X" (a pen). The supporters of eternal or non-derivative word-meaning relation can urge that "X" (a pen) is not an object that is created by an individual since it is created by the omnipotent mind (God).

b) We cannot expose the explicit origin of the majority of words. This procedure hints that words and their relation to meanings and referents are derived from the omnipotent mind that is beyond of any human endeavor.

Kumārila seems right as he challenges conventionalism to say that any convention should have to maintain the meaning relation within the edge of language, not prior to language. It looks promising to consider that words have a primacy over meanings while meanings are only denoted by words. The purport of words and its relation to meanings intermingles at the level of verbal judgment that confines the implication of public meaning as a conjecture of the causal referential directness to the reality.

The Indian grammarians (*Vaiyākarana*) believe that the word evolves out of *śabda-brahman* (where words represent ultimate reality). The cognition of a word meets the criteria of the corresponding object of the world. Here, meaning connotes the word and the word-meaning relation relies on the process of the usages. Patañjali in his *Mahābhāṣya* refers to the contention of words (śabdah) that transmit to the substratum of the world. He considers that the appearance is congregated with the world through the metaphysical identification of words and meanings conjuncture. Patañjali stresses on the nature of cognition, but an eternal verbum (or supreme word) remains unaltered in grammarian as it lies beyond time and space. External verbum sounds as a transcendent principle that segregates all attribution qualities. Besides, eternal verbum as a unitary principle emerges the eternity of supreme reality, an ideal language form (paśyantī) that goes through the threefold cords of verbal, pre-verbal, and transcendental reality. In *Vākyapadīya*, external verbum is considered as the essence that is doubtlessly real and independent (*śabdattavaṁ yad akṣaram*). Sastri writes, "That the Eternal Verbum can be regarded as the Supreme Light that manifests different objects may be clearly understood with reference to our everyday experience. It is an undeniable fact that whatever passes current in our thought is determined by an articulate verbal form."[4]

Grammarians argue that the cognitive process of a newborn baby remains determinate, as the form of his/her knowledge is a sort of inarticulate or un-manifestative knowledge that links to the pre-natural knowledge. The reason is that the word according to grammarians is the material cause of the external world and any object beyond time and space dimension is comprehended by the subject's cognition. If there were no subjects or the concomitant objects, still words would have been in the universe as these are all pervading and eternal. For grammarians, eternal words are ahead of the *spatio-temporal* dimension. The eternal verbum emphasizes a comprehensible immutable reality that manifests in plurality and differentiation. In brief, analogically words are one and unique. Actually, the theory of evaluation of words for grammarians is a kind of unmanifested, immutable word essence (*śabda-vivarta-vāda*) that is independent of any kind of transformation

(*pariṇāma*). Like Vedāntin, grammarians' emphasis on the material cause (*upādāna kāraṇa*), an unchanging matrix that manifolds the phenomenal change (*apariṇāmā praḳrtiḥ*). Bhartṛharị considers that one should not confuse between two different objects that are individually connoted to the different verbal expressions. This intimate relation between the object and the word manifolds a causation that goes towards the eternal verbum as the material cause of the world and the object. Now, one can argue whether the referent of a word differs from the word itself or the object that is determined by the word is identical with the word in nature. Bhartṛharị accepts the two alternatives and says,

> *Svamātrā paramātrā va śrutya prakramyate yathā*
>
> *Tathai'va rūḍhatām eti tayā hy artho vidhīyate* (*Vākyapadīya*, 1.130)

Bhartṛharị emphasizes that the eternal verbum underlies a principle that accords objects and every being without adjoining any genuine amendment. This doctrine extends a kind of uniformism that discards any bifurcation between the word and the world. Eternal verbum as a *unitary principle* of words emerges from the eternity of supreme reality (*iha dvau śabdātmānau-kāryo nityaś* ca [Puṇyarāja's *commentary*, 50]).

ANALYSIS

Bhartṛharị 's proposal tracks down a kind of *normativity* of grammar in order to strengthen the impact of grammar on epistemology. It sounds interesting when he says that all object-classes pivot on word-classes (*Vākyapadīya*, 1.15). Grammarians, especially Bhartṛharị are the leading adherent of monism who ensure that a word in its essence can be considered as an indivisible unit where the plurality of the linguistic forms and worldly phenomena has an interim pragmatic validity. One can ask whether we can deflect class characteristic (universal) from an individual. Bhartṛharị clarifies that the universal is the personification of the individual that looks unchanged through all its periods (padārthasya prāṇa-pradaḥ). It is intimately entwined with qualities and actions that have relation to the substratum, but the substance sounds nonrelative to the essence of the universal. Universal resides in each individual falling into the same class. However, it is not required to understand all the substitutes of the universal as infinite numbers bound it. Sastri clarifies Patañjali's stand on the universal and its relation to meaning that is closer to grammarians. Sastri writes, "In fact, a universal is neither a summation of individuals nor collectively inherent in the latter. It is a fact that a universal occurs in individuals and, when understood as a meaning, it includes an individual as a substratum of it."[5]

A particular phrase like "pot exists" denotes to the referent, i.e., a particular pot that exists, although the content of specific terms like "heaven," "hell," "intelligence," etc. has no reference fixation (existential reference) in the objective world. So here, the denotation of the empty terms cannot deduce from the existential referents. Despite the denotation of the word from the universal, particular, or quality, etc., the compelling relation (a syntactical relation) revolves around the word-meaning interaction by discarding the denotation method. Bhartṛharị advocates the same attitude like Patañjali in his writing. Bhartṛharị thinks that the individual character of a word is a type of generous supplement linked to the general characteristic.

Another clue is that the import of a word relies on the context sensitivity of the persons by depending on different impressions (*vāsanā*). These kinds of different opinions exemplify the training of different philosophical schools and their way of understanding the problem, although to understand the ultimate reality, one has to be blessed with the vision of ultimate truth. Our inter-social and experimental knowledge cannot grasp the transcendental truth, so we should not put a great deal of reliance on perceptual knowledge and the denotation of the word from an individualistic sense. Bhartṛharị, I assume, holds a model of indeterminism about the import of word-meaning relation that hints towards an unfeasible attempt to get a universal approval on the meaning of a word and its consequences. As the meaning of a word depends on the society and an agent's preference, so the problem of incongruity or divergence in the case of denotation may recur. Besides, Bhartṛharị attunes an import of a word as fiction, although Bhartṛharị strongly believes in the reality of sentences and the conception of meaning in terms of an inseparable unit. Bhartṛharị questions about the objective validity of words and meanings. This thesis denies the appeal of *Abhihitānvayavādin* who considers that the meaning of a word does not stem from putting together the meaning of each constituent; neither the meaning of a word can be deduced from the corporate body of the sentence as propagated by *Anvitābhidāhnavādin*. Meaning for the grammarians—especially Bhartṛharị—is regarded as an indivisible unit that can be explained in the course of the meaning of an unreal word that comprises it. For Bhartṛharị the sentence seems real, but words are in *vaikharī* level (ordinary speech that takes place in *spatio-temporal* forms) useful fiction that cannot relate to the empirical real objective. The point is that the semantic and syntaxical part of words remains unreal. Bhartṛharị emphasizes, "The *śabda* that is designative of meaning is an individual unit, a sequenceless whole, but it is revealed through the divided items (noisy realties produced in proper sequences). The latter gets intermixed with the object/meaning for it constitutes the very nature of the object/meaning."[6]

Bhartṛharị ' s *sphoṭa-vāda* nourishes the threefold doctrine of letters, words, and sentences. The term *Sphoṭa* refers to the word-meaning liaison from a causal and effectual efficiency. The use of the word is considered as the instruction for engaging with certain s*phoṭa*. We know that *sphoṭa* (śabda) is in nature indivisible and distinct from any kind of internal sequence. Bhartṛharị thinks that there is *pada-sphoṭa*, which refers to the word as a meaning-bearing unit, whereas *vākya-sphoṭa* indicates to sentence, i.e., nonsequence and part less whole. It is controversial that sentences in Bhartṛharị 's sense are regarded as a meaning bearing unit, but *sphoṭa* in its real sense interchange with the substratum, a kind of linguistic unit that is akin to meaning. Actually, *sphoṭa* is like the non-differentiated language principle. The metaphysical standpoint of Bhartṛharị instigates that the self is identical with language and this state is called *paśyantī* stage, while language and thought, which transmit an undifferentiated

state where the proper articulation of utterances closes to an intermediary stage (pre-verbal stage). In this pre-verbal stage, the speaker considers a differentiation between thought and language. This intermediate stage is familiar to the name of *madhyamā vāk*. The third stage is called the verbal stage (*vaikaharī*) that stands for speaker's word-meaning relation and the comprehension of the hearer. Here, the uttered sound can be perceived by our sense organs. So without comprehending the sound, an agent cannot understand what word (śabda) actually is. Now the interesting question is whether Bhartṛhari's account tends toward monism or not. If we clearly go through Bhartṛhari's analysis, then the pertinent point that we notice is his quest for the transcendental word essence that he called the first principle of the universe, and the *sphoṭa* theory is doubtlessly aligned with the ultimate reality (*sābda Brahma*). The manifestation that Bhartṛhari preserved looks at a perfect knowledge of an individual where without being connected to any thought, no communicative language may ever exist. So the word precedes knowledge hypothesis sounds acceptable. In *paśyantī* level, language and meaning are one and inseparable, but at the verbal level, these may differ. *Sphoṭa* doctrine implies a reunion between the symbol and the signifier. Bhartṛhari refutes Mīmāṃsākas' opinion that we get sentence meaning conjointly through the word meaning. There is a mutual linkage between the sentence meaning and the word meaning. The sentence meaning is nothing but the sequence of words' meaning. These theories preserve a kind of atomism. Bhartṛhari's outlook defines the sentence meaning as an indivisible unit that cannot comprehend the atomistic approach of meaning. In *loka-vyavahara* (human practice), we undertake the holistic approach of language learning in the atomistic unit that correlates words and its meaning separately. The indivisible structure of the sentence is an internal part of language, but the manifestation that makes the whole into part is an external approach that is called speech (*nāda*). *Sphoṭa* and *nāda* are not two distinct issues while grasping the one means grasping the other at the same time. In fact, grammarian thinks *nāda* as an overlay and qualified facade of real language (*sphoṭa)*. *Sphoṭa* reflects in the *nāda* as the color red is reflected on the crystal. Moreover, Bhartṛhari urges that the comprehension of *sphoṭa* is conditionally (instrumentally) derived from the *nāda* just like through our visual system we can see a tree, etc.[7] In this visual perception, an agent may be unaware of the visual faculty and its features. In Patañjali's words, *nāda* is an attribute of *sphoṭa*. Here the cognition of *nadā* is unable to precede the cognition of *sphoṇa*.

One can disagree with grammarians' hypothesis on the utility of language. In grammarian school, language plays three different roles at a time, communication (*pratipādana*), human practice (*loka-vyavahara*), and cognition (*jñāna*). If we would like to see language as a communication, then the process of comprehension (*pratipatti*) precedes communication (*pratipādana*). It is a sort of speech transaction where speakers accumulate speech reception in the context of speech meaning referred to by some speech acts. Language as a human practice endorses the concept of *speech power* that relates to the explicit language. How could the specific language come up? The answer is through language disintegration (*apabhraṁśa*), but it is also true that the generalized language competence (*śabda-tattva*) can manifest a sort of specific language through *vāsanā* as an innate capability. This speech-bond procedure is causally dependent on the subject's will (it may be God's will or a person's will). Language as cognition brings a linguistic act that accompanies comprehension and generalized language competence with cognition (experience in mundane level). However, in particular, Bhartṛhari hints at the ultimate form of language where the purity of the word generates the manifested essential characters. Without believing in the ideal language form (paśyantī), no grammatical form can elucidate how does the word and meaning manifest on the *sphoṭa* theory (real *śabda-bodha*). Language seems an intrinsic component of an individual's awareness. The learning process that is also nourished by this awareness can be gradually increased since the procedure of cognitive awareness is inseparably construed by words.

ACKNOWLEDGMENTS

My sincere thanks go to the anonymous reviewer and Prasanta Bandyopadhyay for inevitable criticism and laudable suggestions.

NOTES

1. Sastri,*The Philosophy of Word and Meaning*, 139.
2. Ganeri,*Semantic Powers, Meaning and the Means of Knowing in Classical Indian Philosophy*, 85.
3. Matilal,*The Word and the World, India's Contribution to the Study of Language*, 27.
4. Sastri,*The Philosophy of Word and Meaning*, 5.
5. Ibid.,147.
6. Bhartṛhari *Vākyapadīya*, verse 1. 44.
7. Ibid., verse 1, 45–49.

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APA PANEL ON DIVERSITY

Report on an APA Panel: "Diversity in Philosophy"

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The Committee on Asian and Asian-American Philosophers and Philosophies sponsored a panel entitled "Diversity in Philosophy" at the 2018 Eastern Division meeting of the APA in Savannah, Georgia. The panel took place on Thursday, January 4, 2018, and it featured B. Tamsin Kimoto (Emory University), Amy Donahue (Kennesaw State University), Monika Kirloskar-Steinbach (University of Konstanz), and Denise Meda Calderon (Texas A&M University). Two other presenters—Brian Bruya (Eastern Michigan University) and Julianne Chung (University of Louisville)—were unable to attend due to weather. The purpose of the present report is to summarize some of each presenter's talk for the benefit of those who were unable to attend and to further the mission of the Committee on Asian and Asian-American Philosophers and Philosophies by sharing, in a wider context, some of the ideas presented at a panel sponsored by the committee. Please note that the following summaries are neither exhaustive nor authoritative. I encourage readers to contact the authors directly if they would like to read their full papers.

The first talk, by B. Tamsin Kimoto, "Skin in the Game: Diversity in (Spite of) Professional Philosophy," highlighted some of the issues that continue to arise in efforts to make philosophy a more diverse and inclusive profession, especially in light of the recent *Hypatia* controversy. Kimoto focused on the often-articulated idea that marginalized people in the discipline are "hypersensitive" and simply need to develop thicker skins. After glossing some of the relevant literature on diversity problems in the discipline, Kimoto discussed the phenomenological experience of being a marginalized person in the discipline, focusing on the idea of skin. Next, Kimoto discussed the notion of epistemic wounding with examples of testimonial quieting (in which an audience simply refuses to acknowledge that a speaker is a knower) and testimonial smothering (in which a speaker withholds testimony due to an audience's inability or unwillingness to constructively engage with that testimony). Such tactics serve to undermine the epistemic credibility of marginalized people. Kimoto ended with a discussion of a sort of reversal of the idea of epistemic wounding in the idea that admitting marginalized people into the discipline is going to "kill philosophy," or that the discipline itself will be wounded; Kimoto suggested, however, that perhaps such "wounding" could be a way to reorganize the discipline.

The second talk, by Amy Donahue, "Nyāya as Therapy for Collective Gaslighting (AKA, Philosophy Is Feeble When It Isn't Diverse)," applied the contemporary notion of collective gaslighting to the experience of diverse practitioners in the field of philosophy, a process Donahue referred to as "institutionalized gaslighting." After explaining some of the ways such techniques work as practices of exclusion (e.g., through conference programs, syllabi, grants, tenure criteria, etc.), Donahue argued that these sorts of what she calls "epistemic technologies" might be countered by resources from the Nyāya tradition of classical Indian philosophy. In particular, the type of debate known as *vāda* (friendly, truth-directed deliberation) might prove to be a fruitful inspiration. For instance, the Nyāya criteria for a trustworthy authority (āpti), which apply regardless of one's social standing, might be used to defend the epistemic authority of those who are gaslit. Furthermore, in Nyāya one cannot restate objections that have already been answered; if such a norm were adopted, it might counter incessant requests for diverse practitioners to justify their activities as philosophy. Donahue ended with the intriguing suggestion that Nyāya's epistemic technology might become the basis for an online reasoning platform.

The third talk, by Monika Kirloskar-Steinbach, "Situating (Cross-Cultural) Philosophy," focused on the problems and promises for cross-cultural philosophy as an avenue for challenging the underrepresentation of minorities (ethnic, gendered, disability, etc.) in the discipline and more broadly for expanding the appreciation of different modes of meaning making in pluralistic societies. Kirloskar-Steinbach noted the potential hazards when members of dominant groups (such as white men) are tasked with authenticating and representing non-Western philosophy—this situation can serve to re-enforce current hierarchies of epistemic authority. In the second part of the talk, Kirloskar-Steinbach argued that cross-cultural philosophy has the potential to challenge the assumptions that only certain forms of meaning making are valid and that only certain types of people should be engaged in meaning making. Drawing on Nishida Kitaro, she explained a model of dialogue that avoids taking its participants *merely* as representations of their respective traditions but rather as individuals with shifting sets of ethical obligations toward one another, a form of dialogue that might open up exciting new possibilities for meaning making in pluralistic societies.

The fourth talk, by Denise Meda Calderon, "Latin American Feminist Philosophy: Distinct Voices on Cultural Identity and Social Justice," offered a critique of traditional, Western epistemology through the work of Latin American and Latinx theorists. Meda Calderon discussed critiques of conceptions of knowledge as *a priori*, objective, and detached from any particular social position or context. Instead, we should see knowledge as situated historically, socially, and politically, a project that Meda Calderon argued provides resources for resonating more with the lived experiences of Latin American and Latinx people as well as offering interesting avenues for interdisciplinary work between philosophy, history, sociology, and other disciplines. Meda Calderon focused on the social and ontological situation of Black Mexicans in Mexico, considering the example of a photography project called *Tierra Negra*. The project became problematic in a number of ways: for instance, it

did not seek input from the subjects of the photos about how they wanted to be represented. Such examples ought to encourage us to situate our own positionality, which will in turn shift dominant paradigms toward inclusion of more perspectives and lived experiences. Meda Calderon ended by examining suggestions from Ofelia Schutte about how attention to situatedness might help to make philosophy more inclusive, for instance by empowering marginalized people to give testimonies of their lived experiences.

Julianne Chung and Brian Bruya were unable to attend the conference due to weather. Chung's talk was to be called "Style, Substance, Methodology, and Diversity: A Cross-Cultural Case Study," and it was to focus on the *Zhuangzi* as a case study for some of the issues that arise in integrating into the philosophy curriculum texts that differ significantly in style from the majority of Anglo-analytic texts. In particular, the style and aesthetic features of the *Zhuangzi* are directly related to its philosophical content, although scholars continue to debate what, exactly, this relation may be. Chung's own interpretation of the *Zhuangzi* as a fictionalist text was to demonstrate how the interplay between form and content might inform ways in which we might bring together differing methodologies and traditions to diversify philosophy, a process that might have moral, epistemic, and aesthetic benefits.

Bruya's talk, "Multiculturalism as Diversity," was to be based on a recent publication, which he was able to provide. In this paper, Bruya argues in favor of diversifying philosophy in terms of subject matter. Drawing on resources from social science, he makes two claims about human nature: the bad news is that humans seem to have an inherent tendency toward ethnocentrism, but the good news is that diverse groups really are more likely to find better solutions. Bruya then shows how the tendency toward ethnocentrism works against the promotion of diversity in philosophy, particularly with regard to popular, yet flawed resources like *The Philosophical Gourmet Report*. Bruya proposes that scholars working in non-Western philosophy organize to promote the advancement of multiculturalism in philosophy through demanding more inclusion in the APA, participating in other philosophical societies, and hosting workshops for philosophers seeking to integrate non-Western content into their curricula.

I remind readers that these summaries should not be taken to be complete records of their respective presentations. They are at best partial sketches of fuller, more detailed discussions. My goal is merely to pique readers' interest in what the authors had to say, and I wholeheartedly encourage readers to contact the authors directly. I would like to thank the participants for their presentations and for providing their papers. I'd especially like to thank Monika Kirsloskar-Steinbach and Amy Donahue for organizing the panel and for suggesting that I write this summary.

BOOK REVIEW

Minds without Fear: Philosophy in the Indian Renaissance

Nalini Bhushan and Jay Garfield (New York: Oxford University Press, 2017).

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The title of this celebration of modern Indian philosophy in English hearkens to the ennobling words of Rabindranath Tagore. It is an apposite choice. Not only is Rabindranath a shining exemplar of the so-called Bengal Renaissance, but he also played an important role in garnering global recognition for Indian wisdom and spirituality. It was Rabindranath's *Gitanjali* that won the Nobel Prize for Literature in 1913—the first such prize for a non-Western writer. That collection also contains the poem to which the authors allude, which opens with the words, "Where the mind is without fear." While Rabindranath could give voice to national aspiration, we should recall that he also struggled to reconcile patriotism with universalism. This helps us appreciate the question behind Bhushan and Garfield's book: How did modern Indian thinkers honor the resources of their own tradition while creatively responding to the challenge of colonial modernity?

The book has many merits. To begin with it is written in a lively style and with a real appreciation for the many intellectual projects it surveys. The authors do justice to thinkers who have not always received a fair shake. There was a time when members of the Euro-American philosophical guild could write off an Aurobindo Ghosh or a Swami Vivekananda as intellectually sloppy, derivative, or eclectic (for my own attempt at a correction, see *Eclecticism and Modern Hindu Discourse* [Oxford, 1999]). While appreciating the intellectual accomplishments of such figures, Bhushan and Garfield are committed to helping readers understand what we might call the pyscho-social contexts in which they worked. And if Bengal has hitherto been the *locus classicus* for thinking about India's encounter with the West, the authors deserve credit for taking a geographically more expansive view of the Renaissance; they want us to think of India and not just Bengal; likewise they embrace developments among Muslim thinkers instead of perpetuating the notion that India's awakening was strictly a Hindu affair.

The authors' methodology bears noting as well, especially as they discard tired notions of modernity as a rupture of Indian tradition. Following the lead of scholars like David Shulman, Muzaffar Alam, and Sanjay Subrahmaniam, they seek to locate the traces of modernity in the premodern. This allows them to contest narratives that picture India moving from a religious past to a secular present. They prefer we see how India's embrace of secularism came not at the cost of religion but through the re-deployment of religion under the terms of reform. This is a thesis that accords well with a range of recent scholarship that

either interrogates the Western, Christian genealogy of secularism or that explores the way groups like the Brahmo Samaj deployed new conceptions of theology and reason to advance arguments about universalism and pluralism. Those already familiar with the literature on India's particular embrace of secularism will not find anything new here, but context is everything. It has been customary to dismiss Indian philosophy as being religious; and if religious, then it had to be either anti-modern or non-secular. This book allows readers to appreciate what is at stake in such claims.

The authors' other methodological strategy is useful if less than original. It involves identifying the concept of the Renaissance as a "master trope" (65). This trope turns on invoking a real or imagined "golden age" and suggests that the hallmark of a Renaissance is the attempt to recover or re-establish the ideals of this postulated bygone era (68). By focusing on the Renaissance trope, the authors wish to highlight a particular modernity whose distinctive component involves a backward gaze of cultural recovery coupled with a "forward-looking" embrace of modernity that had been occasioned by "accelerated interaction with England and the West" (65). To be fair, David Kopf had long ago isolated this very feature of the Bengal Renaissance, viewing it as a kind of "dynamic classicism" (see his *British Orientalism and the Bengal Renaissance* [California, 1968]). It is a shame that Bhushan and Garfield seem unaware of Kopf's widely cited work, which they might have drawn upon to enrich their own analysis. That analysis proceeds to identify a series of subsidiary tropes the authors treat as clustered under the aegis of the master trope. These include themes like self-conscious innovation, tradition versus modernity, the sacred and the secular, intercultural encounter, and elite cultural production (see 69–76). Whether these are proper tropes is open for debate; it strikes me this is a list of structuring themes in Renaissance thought, which could then be expressed through metaphor. One thinks of Rabindranath deploying the metaphor of the "dreary sands of dead habit" to speak of tradition in his poem from *Gitanjali*. In any case, it is not clear how much this list actually unpacks modern Indian intellectual and how much it merely reflects its major premises.

This raises important questions. Granting that the Indian Renaissance operates as a master trope, just whose trope is it? And how should it be invoked today? Here the authors' celebration of Renaissance philosophy tends to short circuit sustained critical reflection. One might argue that what bears examination is not the fact that Indian thinkers invoked metaphors of rebirth to mobilize communal, regional, and national aspiration, but what the ramifications of such invocations have been. The authors speak approvingly of the "soul" of India and wish to highlight the glories of Indian pluralism, but do they also risk a slippage into essentialism? Does their celebration of modern Indian philosophy rub up too closely against nationalist historiography, while ignoring the shadow-side of such culturalist mobilization? I was disappointed to see that the authors pay scant heed to a wealth of scholarly literature associated with postcolonial and subaltern studies. This may point to the selectivity of their own reading of modern South Asian history. Even so, they have brought the Indian Renaissance back into critical view, and for that we can be grateful.