# Indian Philosophy—Reading group 3

Almost all Indian philosophers regarded inference (*anumana*) as an independent source of knowledge (*pramana*). It's the notions of inference, reasoning, and logic in Indian philosophy which Perrett focuses upon in this chapter.

The history of Indian logic can be divided into three periods (p. 78):

**Ancient period:** 650 BCE - 100 CE, *Nyayasutra* and its commentaries.

**Medieval period:** Up to 1200 CE, Buddhist logicians Dignaga and Dharmakirti.

**Modern period:** From 900 CE, Gangesa and the school of Navya-Nyaya.

**Early Nyaya logic**

In the *Nyayasutra*, Gautama defines an inference as having five elements: (p. 79)

1. Hypothesis (*pratijna*): That mountain is fire-possessing. (JR: $Fa$)

2. Ground or reason (*hetu*): Because it is smoke-possessing. (JR: $Sa$)

3. Corroboration (*drstanta*): Whatever is smoke-possessing is fire-possessing, like kitchen, unlike lake. (JR: $\forall x \, (Sx \rightarrow Fx)$)

4. Application (*upanaya*): That mountain, since it is smoke-possessing, is fire-possessing. (JR: $Sa \rightarrow Fa$)

5. Conclusion (*nigamana*): Therefore that mountain is fire-possessing. (JR: $Fa$)

In the corroboration, there's a lot of focus on giving examples; this ensures that the universally quantified statement has existential import.[1]

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[1]Perrett suggests that the universally quantified statement would be false if it didn't have existential import, and goes on to say that the idea of valid arguments with false premises is alien to Indian logic. His first statement here doesn't seem correct: the universally quantified statement would be true if it didn't have existential import (vacuously). Maybe the thing to be said here is that trivial satisfaction of universally quantified statements was alien to Indian philosophy. In any case, not much seems to ride on this.

## Fallacies, debate and dialectics

The *Nyayasutra* presents five fallacious (which we can take to mean: problematic) reasons (used as premises in arguments, presumably) (p. 81):

1. A reason which is indecisive.

2. A reason that contradicts accepted tenets.

3. A reason intended to produce something but which produces only doubt.

4. A reason that is as much in need of proof as the thing to be proved.

5. A reason that is mistimed.

Perrett doesn't expand on these too much, but the idea behind each seems fairly transparent.

## Medieval Buddhist logic

As Perrett writes (p. 82), "The Buddhist formulation of the standard inference schema is simpler than the Nyaya version":

1. Thesis (*paksa*): $p$ has $s$.

2. Reason (*hetu*): $p$ has $h$.

3. Pervasion (*vyapti*): Whatever has $h$ has $s$.

(This should be very similar from our favourite Socrates/mortal example.)

The Buddhist logician Dharmakirti, in his *Nyayabindu*, claimed that there is "a kind of necessity to the *vyapti* relation", grounded in one of two things:

(i) **Causation**: "the idea is that if $x$ is the cause of $y$, then knowing $y$ has occurred allows us to infer that $x$ must have occurred too" (pp. 83-4).

(ii) **Identity**: For this, consider cases such as "this is a tree because it is an oak".

However, as Perrett writes,

> *It is unclear, however, that these innovations do in the end solve the problem of how we can ever come to know with certainty that a pervasion relation obtains. After all, appeal to causation will not do the job here, for Dharmakirti holds that our knowledge of causation is acquired by mere observation of sequences of events, even though such observations clearly cannot discriminate between genuine causal connections and spurious correlations.* (Perrett p. 84)

This seems correct, and is a standard Humean concern. But Perrett continues with something (in my view) a bit less clear:

> *Neither will an appeal to identity succeed, for knowledge of the identity relation cannot be inferential or there would have to be an infinite regress of inferences to establish even one instance of it.* (Perrett p. 84)

**Question 1:** What exactly does Perrett mean in the case of identity?

**Question 2:** Are there other possibilities which Dharmakirti could have included here— e.g., the contemporary Western metaphysics notion of 'grounding' (see works of Schaffer— though cf. work by Wilson which argues that grounding is a species of causation).

## Navya-Nyaya logic

Navya-Nyaya logic is a logic of cognitions. Recall from last time that "A cognition is a short-lived, episodic mental event" (p. 85). I won't go into this further, but see Perrett pp. 85-6 for more details.

## Pervasion and the problem of induction

The problem of induction arises in both Western and Indian philosophy. In the former, it's associated with Hume; in the latter, it's associated with the Carvaka materialists: "The Carvakas … are reported to have denied the validity of inference and only accepted perception

as a *pramana*" (p. 87). The question at hand is simple: how can we ever be certain that a pervasion obtains?

There are also interesting parallels with the Western canon when it comes to the Carvakas' response to this problem:

> [T]he Carvakas do offer an alternative account of inference. They claim that it is either based on a former perception, or that it is a mistake. The fact that it is sometimes followed by successful results is just an accidental coincidence. In other words, inference is a psychological *process, not a logical one, and our reliance on such reasoning is due to* psychological conditioning. It is sometimes accidentally successful, but there is no logical *connection because, the Carvaka argues, we can never really know the* vyapti *on which* inference is based. (The resemblance to Hume is quite striking here, for he also concluded *that induction cannot be epistemologically justified at all because it is not really a process of reasoning but rather a* habit *of expecting what has previously occurred in certain given circumstances to reoccur in similar circumstances.)* (Perrett p. 89)

Perrett now goes through some of the better-known Indian responses to the problem of induction.

**The Nyaya defence of induction**

The Nyaya response to the problem of induction was to claim "that we can actually perceive (non-sensuously) the *vyapti* relation" (p. 91). (JR: Cf. apriorism in the Western canon?)

As Perrett points out, however, the hardly answers the question: "The real question is how it is possible for us to know from the observation of some $A$s as related to some $B$s that all $A$s are related to $B$s" (p. 92).

Jayanta suggests that we have an 'extraordinary' sense of perception, by which we can perceive universals and the relations obtaining between them. But this is not convincing, absent an account of how the 'extraordinary' sense of perception is supposed to work.

## The Advaitin defence of induction

The crux of the Advaitin answer to the Carvaka challenge is this:

> *... ordinary knowledge remains knowledge until falsified, but this falsification can take*
> *place in two ways. First, within the realm of ordinary knowledge there can be falsification*
> *through a negative instance. Second, the whole world appearance can be seen as illusion*
> *in the experience of* moksa. (Perrett p. 95)

**Question:** To what extent is "ordinary knowledge remains knowledge until falsified" akin to the views on induction of Popper?

## The Buddhist defence of induction

We've already seen that Dharmakirti claims that the *vyapti* relation can be underwritten either by facts about (a) causation or (b) identity. But we've also seen the epistemological problem of ascertaining whether, in the relevant sense, the causal or identity relations obtain. (JR: Possibly one can say something in connection with externalism here.)

In order to know whether the causal relation obtains, we need to understand the nature of the causal relation. As Perrett writes,

> *The* pancakarani *test is used to determine whether two objects A and B are causally*
> *related or not. In brief: if it is the case (other things being equal) that the appearance of*
> *a given phenomenon A is immediately succeed by the appearance of another phenomenon*
> *B, and the disappearance of A is immediately succeeded by the disappearance of B, then*
> *A and B are related as cause and effect.* (Perrett p. 97)

**Questions:** Which Western analysis of causation is this most akin to? The Humean, 'constant conjunction' account? Or a counterfactual account? But what of the well-known problems with those accounts? (E.g. epiphenomena, pre-emption.)

**Pragmatic defences**

Jayanta, in the *Nyayamanjari*, writes the following of the Carvaka challenge:

> *They cannot confute the validity of inference per se sine its validity has been universally accepted.*
>
> *A woman, a child, a cow-herd, a cultivator and such other persons know another object (lying beyond the ken of their sense-organs) by means of its sure mark with absolute certainty.*
>
> *If validity is denied to inference then all worldly transactions cannot be conducted with the mere help of perception. All the people of the world should remain motionless as if they are painted in a picture.* (Bhattacharyya 1978, p. 250)

**Questions:** What are the connections here with (a) Moore in response to philosophical scepticism, and (b) Wittgenstein on 'bedrock'?

**The Buddhist tetralemma (*catuskoti*)**

With all of this discussion of the problem of induction in hand, Perrett turns in the final two sections of the chapter to the princple of non-contradiction. As he writes, "the overwhelming majority of classical Indian philosophers accepted the principle of non-contradiction"— i.e., $\neg (p \wedge \neg p)$ (p. 103). That said,

> *... there are two famous Indian logical doctrines that have sometimes been taken by some to imply minority positions that are more permissive of contradictions than the majority consensus would allow. The first of these is the Buddhist tetralemma* (catuskoti); *the second is the Jaina doctrine of sevenfold prediction* (saptabhangi). (Perrett p. 103)

On the Buddhist tetralemma: the Buddha, supposedly, refused to affirm or deny any of the following propositions:

1. The *tathagata* exists after death.

2. The *tathagata* does not exist after death.

3. The *tathagata* both exists and does not exist after death.

4. The *tathagata* neither exists nor does not exist after death.

This suggests that one might regard these propositions as being neither true nor false (so there are truth value 'gaps'). One reason one might think this is because one thinks that to speak of transcendent, super-empirical matters is to fall into speaking nonsense. (JR: Cf. the 'resolute reading' of Wittgenstein here?)

## Jaina logic

The Jaina doctrine of sevenfold prediction (*saptabhangi*) is a logical tool for teaching 'the doctrine of non-onesidedness' (*anekantavada*). Perrett summarises this latter doctrine like this:

> Anekantavada *implies that while the Jaina view of reality is authoritative, rival philosophcial doctrines are only wrong on account of their onesidedness. Hence, from the proper perspective, they may be integrated into the Jaina system. In other words, wrong views are best seen as* nayas, *viewpoints that are partial expressions of truth. For example, an existent may be both eternal (as a substance) and non-eternal (as modes). Philosophical claims need, then, to be properly parameterised through the use of conditional assertions. (*syadvada*). (Perrett p. 107)

JR: Cf. the doctrine of 'perspectivalism' in the Western literature (see e.g. works by Massimi).