Thinking Negation in early Hinduism & classical Indian philosophy¹

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Abstract. A number of different kinds of negation and negation of negation are developed in Indian thought, from ancient religious texts to classical philosophy. The paper explores the Mīmāṃsā, Nyāya, Jaina and Buddhist theorizing on the various forms and permutations of negation, denial, nullity, nothing and nothingness, or emptiness. The main thesis argued for is that in the broad Indic tradition, negation cannot be viewed as a mere classical operator turning the true into the false (and conversely), nor reduced to the mainstream Boolean dichotomy: 1 vs 0. Special attention is given to how contradiction is handled in Jaina and Buddhist logic.

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0. Preamble

In this paper I examine a number of different kinds of negation and negation of negation developed in Indian thought, from ancient religious texts to classical philosophy. I shall be drawing from Ṛg Veda, the Mīmāṃsā, Nyāya, Jaina schools to Buddhist theorizing on the various forms and permutations of negation, denial, nullity, nothing and the possibility of nothingness. I will explore the logical elements of consistency, non-contradiction, and parsimony in their respective accounts; or consider whether they might be suggesting alternative perspectives on these very principles of negational reasoning. The present analysis follows the function of negation/the negative copula, *nān*, and dialetheia in Indian grammar and logic. There is less of a concern with reductively parring affirmation and

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negation (or denial) with truth and falsity (the pairs are not coterminous as we are dealing with the structure of speech-acts, semantic fields and expressions). The main thesis argued for is that in the broad Indic tradition, negation cannot be viewed as a mere classical operator turning the true into the false (and conversely). Moreover, in the first two schools (Mīmāṃsā and Nyāya) the logical form of sentences are transformed into more complex syntax in order to disentangle their sense; whereas the Jaina and Buddhist school present either relative or non-discursive forms of assertions which cannot be reduced to the mainstream Boolean dichotomy: 1 vs 0. Since few of the negative expressions contravene or defy conventional meaning, certain rules of classical logic, such as obversion, conversion, or contraposition, would not be universally applicable. Still, the critical point to be made is that there is a certain ambiguity in the tradition's handling of negation and that without adequate formalization advanced by the respective schools the emphasis veers more towards linguistics than logic of the sophisticated kinds that have been developed in Western philosophy. While the paper is reticent to enter into the latter territory in this preliminary exploration, some humble efforts nevertheless are made at comparative alignments.

I begin with Ṛg Veda X. 129 (*Nāsadīyasūkta*) which in Sanskrit has this structure:
nāsadāsīn no sadāsīt tadānīm :

Then there was not non-existent nor existent:
there was no realm of air, no sky beyond it.
What covered in, and where? and what gave shelter?
was water there, unfathomed depth of water?
He, the first origin of this creation,
whether he formed it all or did not form it,
Whose eye controls this world in highest heaven,
he verily knows it, or perhaps he knows it not.²

Note the occurrence of the negation twice in the conjunct: *asat*, 'non-existence' and *na* 'neither'. It is singularly lacking in affirmation of anything positive; the values are

² *The Rig Veda: An Anthology*, transl. Wendy Doniger O'Flaherty, Penguin Classics, New York, NY (1981), p. 25.

compounded negatives. Various hermeneutical devices, including abduction (not unlike Peirce's) have been deployed over two millennia to unpack this arresting statement, for its meaning. Pacitti [15] considers ten different possibilities in respect of the function of the negation (and its negation) in the above sūktā; it collapses with some modification into four possibilities:

- 1) There was not what-is-not, and there was not what-is, then
- 2) Both what-is-not was not and what-is was not.
- 3) $\neg$ (what-is-not was there) and $\neg$ (what-is was there)
- 4) It can neither be asserted nor denied that what-is-not was nor that what-is was.
- 5) What was *was* neither what-is-not *nor* what-is (= neither non-existence nor existence) (emphasis added)

What is going on here? Is denial tantamount to an assertion of negation? Is it a rejection of double negation via assertion of a single negation? Or, declaring the impossibility of linguistic assertion (4)? Perhaps inconsistent readings arise only when one takes properties of the constituent parts as though they are properties of the whole; reasoning in either direction yields different kinds of negation. Many scholars have been rather apologetic, but I wish to argue from a retrospective genealogy that tracks back through the Mīmāṃsā's treatment of exclusionary negation.³ On the cosmogenic side, one could connect the beginning in prior *asat* or non-existent (noting the reverberation in a literal reading of *creatio ex nihilo*); indeed, in response to the question in *Chāndogya Upaniṣad* on 'how could anything come out of nothing' it is suggested that some people have held such a view. It is thus established that the Ṛg Veda X.72 and X.129 along with a variety of other sources up to and beyond *Chāndogya Upaniṣad* (ChUp III, 19) taught that nonbeing, *asat*, “was” in the beginning, and that *sat* (being) arose from nonbeing in, as it were, a quantum flash.⁴

³ It may be noted that this sūktā along with various Upaniṣadic binomial statements such as ‘It [Brahman] moves and it does not move’ resonate with the seven-fold predication of Jaina logic [1]; and that had also later preoccupied many an Indologist in Europe and India and recently the US. The Jaina theory is discussed in Part II.

⁴ For further discussion of Wilhelm Halbfass on this observation, see [3]. *Chāndogya Upaniṣad* (ChUp III, 19) in Olivelle, Patrick Upaniṣads, Oxford University Press, New York (1998).

1. Mimāṃsā and Nyāya on Negations

The focus of Part I is on the Mimāṃsākas' theory of negation, otherwise known as *abhāva* or 'absence', and may be read as *nāsti* or non-existent. Reference will also be made to the adaptation and variation in the Nyāya system.⁵

I contend that in its Bhāṭṭa (i.e. Kumāṛila Bhaṭṭa's⁶) formulation this doctrine ought not to be reduced to *anupalabdhi* as it only achieves this latter re-naming and articulation with Pārthasārathi Miśra and Śālikanath Miśra. Both these commentators are influenced by the criticisms of Buddhist logicians, especially Dharmakīrti (a contemporary of Kumāṛila, circa 7th century C E) and Prabhākara (the other doyen of the Mimāṃsā), and indeed responses to the Naiyāyikas. The latter themselves did not begin with the kind of radical doctrine of negation that they end up with, particularly, in Vallabha and Raghunāth Śiromaṇi.

I have three aims in Part I. First I should like to outline the logical theory of negation in the Mimāṃsā. Second, I make a connection with the Mimāṃsā hermeneutic of moral judgments (which for them are inscribed in *śruti*, the Vedas, in the form of Vedic injunctions, 'the ought to do' type of positive propositions – *vidhis*). The most important part of the discussion here is the Mimāṃsā treatment of negative propositions.

Before that, however, a word on Mimāṃsā (for those who may not be familiar with this particular school of classical Indian thought, perhaps in some ways even pre-classical with its roots in the Brāhmaṇas of the Vedas), to which also arguably belongs the genesis of the Nyāya or logic school of Indian thought.

The term '*mimāṃsā*' literally signifies 'commensuration', from the roots '*mīm*', 'to align, to sound...', and '*man*' to think', and this implies, in Zilberman's words, "achievement of consistency in reasoning [*naya*], as a necessary precondition of making the meanings of words or sentences (for Sanskrit it is all the same) comprehensible" [28, 288]. According to the definition given by Śābara in his *bhāṣya* on *Jaimini-sūtra* I.1.2⁷, "... interconnected words or sentences which instruct in methods of cooperation or congruency in actions are known as *pūrva-Mimāṃsā*, or *karma-Mimāṃsā*." (Ibid) To elaborate on this,

⁵ Some further discussions on 'Absence (*abhāva*)', see [5] Some of the analyses on Negation in this Part have been taken with adaptation from Bilimoria [2].

⁶ *Śloka-vārttika* (=SV), with *Nyāyaratnākara* of Pārthasārathi Miśra. Tara Publications, Varanasi (1979).

⁷ See footnote 9 below.

I will use Zilberman's succinct descriptors here. Actions are subdivided into two classes: prescribed and prohibited ones. Normative injunctions (*vidhi*), derived from the Vedic sentences, induces or entices one to accomplish certain actions, which can be

- (1) regular, imperative, deontological (duty-based) or non-exemptive (*nitya*);
- (2) imposed by circumstances (e.g. filial exigencies or social contingencies) (*naimittika*);
- (3) optative, i.e. performed with the purpose of achieving some desirable award or effect (*kāmya*).

These together constitute *dharma* (this is the Bhaṭṭa view; Prabhākara extend *dharma* only to the first two). The inducement is in the form of a generated verbal energy in the so-compelled, excited or inspired initiate by the *vidhi*-proposition, generally of the form: 'Let him be induced to do this and this', and it abides in the subjective intention (*bhāvana*). It is rendered by the imperative or optative form of the verb (*lin*) and conceals the deontic modality of the statement which proposed something as hitherto not existent (non-existent), but as due to be done [28] (p. 289). The reference here to 'deontic' need not extend to 'non-formal' logic, as in 'aesthetical logic'.

Now, coming to the semantics of negation – and this is a crux of the argument – the prior *non-existent* is the logical negation of what has not yet been actualized. But there are other possible negations as well. The problem then that faces the philosopher is to interpret all parts of the *vidhis* and the larger passages in which they are embedded, and then to sift through the kinds and degrees of permitted, proscribed or prohibited, and excluded incentives toward a particular action. The way this is done is by focusing primarily on the verbal displayment that abides in the impersonal Vedic words (being authorless, there is no question of inquiring into the intentions of the supposed author); and that focus narrows down to the verbal intentionality (*śābdībhāvana*) that presents a specific transcendental function as the specific property of the intension of the verbal meaning.⁸ It follows that among the injunctions there may well be resemblances, dissimilarities, or oppositions; generating an order among these becomes of paramount importance.

In the analysis that ensues, two categories become important: affirmative and negative meanings attached to the verbal expressions. Balancing the effects, the

⁸ Here Zilberman cites Maṇḍana Miśra as his authority for this rendering of '*śabda bhāvana*', as he calls it, which otherwise would be *śābdībhāvana*, as 'verbal energy'[28]. Arindam Chakraborty disputes this is a correct rendering of *śābdībhāvana*, for the *bhāvana* presumably is not in the verbal formation but rather is a disposition within the hearer which propels him forthwith into action (seminar response).

consequent, of these would mean first examining their antecedent casual potency (*śakti*) – how much good or damage they can do; and this calls for dialectical mediation, and it may mean a recourse to deontic, subjective, aesthetic, causal, etc. considerations or markers.

It may be noted that, in fact, the Mīmāṃsā were the first to introduce negative kinds of propositions in Indian philosophy. Jaimini specifically discusses *pratiṣedha* (VI.5.15, VIII.7,10)⁹, and it may be noted that this is well before the Nyāya-Vaiśeṣika and the Jaina and Buddhists took up these concepts and developed them in rather different and indeed logically rigorous ways. Although the grammarian Pāṇini had already laid out some of the terms and rules for interpreting opposition and tensions between contrary expressions; his rules however did not embed the same degree of logical articulation, particularly in respect of non-indicative sentences, which the Mīmāṃsā would herald in. Again, the Mīmāṃsā needed this in order to sort out the different kinds of negative injunctions, which Jaimini undertakes so that all kinds of *bādhās* or handicaps and contradictions in and between the injunctions, mantras, and their supplementations (*arthavādas*) – and the moot distinctions between these two as well – could be put in place. So here is an application of their thinking on negative propositions and how one is to ‘read’ these in respect of their ramifications for the intended purport of the Vedic *codanās* or *vidhis*. For those with an interest in finding other ways to talk about contradictions – a divergence from Aristotelian logic – this earliest of Indian classical treatment may well be instructive.

From (3), in the four-fold Mīmāṃsā negation, following the Grammarian commentator Patañjali, one is able to derive *pratiṣedha*, ‘mutual prohibition’, and *vipratiṣedha*¹⁰ where “two rules with different meaning apply to one (word),” could be read as “opposition (between two propositions) of equal force” (Staal [26] (pp. 112-113). The question is how to resolve the tension. The Mīmāṃsā for their part begin by grouping the negations into three categories, which I will call limiting negations. These are now described: *vipratiṣedha*, *niṣedha*, *pratiṣedha*: permissible, prohibited, and excluded negations, respectively.

The first kind is a contingent opposition, applying to individual instances but is not considered to be universal (for there is no *jāti* – genus – that pervades across the two expressions). When a jar is destroyed, not all jars are destroyed. You may be seen with the

⁹ *Jaiminisūtra* In: *Mīmāṃsādarśana* edited by Gajanana Sastri Musalgaonkar, Bharatiya Vidya Prakashan, Varanasi (1979).

¹⁰ Technically signifies a conflict of two rules of which the latter prohibits the former.

umbrella this morning even though it is not raining, for it may rain in the afternoon. Nevertheless, it has more of a force in prescriptive sentences than in indicative ones. Strict prohibitions belong to the other two. I will comment on *pratiṣedha* before coming to *niṣedha*.

Pratiṣedha admits of two further types, *paryudāsa* and *prasajya*: by negative implication ‘*p* implies $\neg q$ ’ – ‘If *x* is a kṣatriya she is not a brahmin’; ‘if it is grey it is not white’, ‘if *y* is an *asura*, he is not a god’.

The others are *prasajya-pratiṣedha*: ‘snow is not black’ $\neg [F(x)]$; and *paryudāsa-pratiṣedha*, ‘the jar is not (here)’, $F(\neg x)$. This is as far as the grammarians went, but now we’ll see how these are tightened up when the negative functor is added in the hands of the Mimāṃsā. According to the Mimāṃsā philosophers each of the elements of a sentence, such as verb, verbal ending, or noun, can be negated, seamlessly and defeasibly. (This is in contrast to its singular prohibition in Western linguistic philosophy.) An obligation operator $\emptyset$ is introduced along with a prohibition operator ($\emptyset\neg$).

Thus: $\emptyset\neg [F(x)]$; and $\emptyset[F(\neg x)]$ respectively.

The difference between the two is that in the former – *paryudāsa* – there is a residue of the essentially positive still lingering on, while the negative is secondary or of second order, a semantic negation that strikes at the last member, not the verb itself, which it would if the statement had said: ‘He is not being a brahmin, or a good Brahmin at least’. Whereas in the latter – *prasajya-pratiṣedha* – the essential assertion is of a negation and there need not be any positive residue; it does not apply to the last member of the negative compound but strikes at the verbal ending (*kriyayā saha yatra nañ*; *nañ* [= *n*] signifies the negation). So the ‘*paryudāsa*’ type of negation may be called ‘exclusion type of negation’, whereas *prasajya-pratiṣedha* is a ‘prohibition type’ of negation. And this is also called ‘*niṣedha*’ which can spell out more radical forms of negation depending on which part of the verbal intension the *n*-factor is seen to strike at.

Generally speaking, in indicative sentences, in the case of *paryudāsa* type of negation the negative is connected with the verbal root or the noun, but not with the verbal ending. Whereas for the Mimāṃsāka, who are primarily concerned with Vedic injunctions which contain a verb in the *optative* mood, the principal part is the optative verb form, and the principal part of the optative verb form is the (verbal) ending, not the verbal root. That is the structure of positive injunctions, but it came to be transferred to negative injunctions

or types of prohibitions and limiting negative sentences as well. Hence we have to understand the *niṣedha* type of negation where the negative is connected with the verbal ending: because it can provide prohibitory force without limits.

To give one prominent example of *niṣedha*: the negative injunction *na bhakṣayet* is a negation of the positive injunction *bhakṣayet*, ‘he shall eat’ that is denoted by $\emptyset[F(x)]$, where $F(x)$ denotes ‘he eats’ (and modally, ‘it is necessary that he eats’). Now a prohibition (*niṣedha*) or negation of this injunctive sentence then is to be symbolized not by $\emptyset[\neg F(x)]$ (even though this is its logical negation), but by $(\neg\emptyset)[F(x)]$ just as – and Staal points this out rather perceptibly – the negation of ‘he shall eat’ is not ‘he shall not-eat’ but ‘he *shall-not* eat’ (colloquially, eating is a ‘no-no’). Here also $\neg\emptyset[F(x)]$ denotes $(\neg\emptyset)[F(x)]$ (‘there is no mandate for eating’).

The expression $\emptyset[\neg F(x)]$, *even though a negation of the positive injunction*, is in itself not an injunction, and even though not well formed, still has meaning not unlike $F(\neg x)$, it could mean ‘it is permissible that she does not eat’. It belongs to the *paryudāsa*, ‘exclusionary’ rather than the strictly prohibitive.

In other words, one form of negation may suggest that doing x is not all right at this moment, but it may be permissible at another moment, or by someone else. ‘She shall not-eat’, inscribes into its propositional structure the permissibility of eating at other times (e.g. crossing communities, it would apply to the Muslim observance of Ramzaan, where eating in the day hours is prohibited, but permitted after sunset). The Mimāṃsākas were interested in delineating the kinds of negation that are prohibitory without a residue of permissibility in any part of the semantic field, for one can easily say, ‘Do not indulge in sex’, but if one got married tomorrow it may become obligatory not to avoid sex, in the interest of progeny. Likewise, ‘a Śūdra should not even as much as be permitted to hear the Vedas recited’ stands as a prohibition; but it does not necessarily exclude a son born of the intermarriage of a Brahmin and a śūdra, or the other castes, from being present at a sacrifice, and so on. The Mimāṃsākas are in search of the equivalence of the strictly obligatory in the negative kind (adverting to the injunction ‘Ought not to be locked, at least not this door’: $\emptyset(\neg[F(x)] \rightarrow [F(\neg x)])$; we elaborate this formalization below).

Clearly this kind of negation, if it be admitted as a valid kind of negation (which I presume it would not be in Aristotelian logic (unless one brings in some other abstract operator¹¹) the Mimāṃsā classify under *paryudāsa*, ‘exclusion’. *Yatra-uttara-padena nañ*,

¹¹ My suggestion of substituting here Church’s λ , lambda operator, has not gone down well with reviewers.

‘where the negative is connected with the next word’ – denoting here, ‘other than the verbal ending’, which as we saw was the mark ascribed to *pratiṣedha* (above), *kriyayā saha yatra nañ*. And the ‘next word,’ *uttarapada* as suggested earlier, denotes the second member of a negative compound (*tatpuruṣa* or *bahuvrīhi*, different kinds of nominal compounds in Sanskrit, but not ruling out verbs) can be either a verbal root or a noun, but such a negation does not strike at the core of the injunction (because it excludes the verbal ending), hence it is not properly tantamount to a negative injunction. In other words, it has a qualificative limiting function rather than an absolute prohibitory function, and therefore it does not fit the fourth kind of negation simpliciter, *atyantābhāva*.

In any event, for whatever it is worth, let us explore the application of the exclusionary or *paryudāsa* kind. Now Staal takes an example from the *Mīmāṃsā-Nyāya-Prākāśa* (ably translated by Edgerton), of the sentence, ‘*nekṣeta*’, ‘he shall not look’. Curiously, there is positive injunction here, because there is a preceding phrase ‘his vows are...’. [26] Hence, technically speaking, nothing is prohibited; there is no *īkṣana-virodhī* (opposition to looking) for he never thought of looking (in the direction of Dharmakīrti’s distractingly dancing mistress)! He has not been given a desirous option: the expression is bereft of an optative ending in the negative, which is different from saying you can be enjoined to do *W* [work/duty/*kartavya*] even where *W* cashes out into $\neg F(x)$ = ‘not-look’. You are still doing your work. Hence this is represented by the formula, $\emptyset[(\neg F(x))]$. We could go on and find sentences where one of the nouns is negated, drawing on (3), the *anyonyābhāva* negation (here the negation is of difference of an entity under the mode of identity relation). If the positive injunction of the expression $F(x,y)$ is $\emptyset[F(x,y)]$, [*y* is contra *x*, so other than *y*], its negation or *paryudāsa* is $\emptyset[F(\neg x.y)]$, but it still remains positive in its injunctive force (*śābdībhāvana*).

Bringing this part of the discussion to a conclusion, the innovative element in the *Mīmāṃsā* approach to prohibition and exclusion vis-à-vis the grammarians of the three types of negation, is that negation can be applied to either $\emptyset$ or *F* or *all* parts of a sentence, which is impossible in grammar. This may not seem very novel from our modern, post-classical point of view in logic, but at a time when logic was totally in the control of a tool used principally by grammarians to structure the determinants of proper speech, this indeed is quite a break-through, for it attempts to mirror the world outside – of real *kriyās*, action and things, in speech – and it also tries to understand without compromising the meaning of certain *a priori* negations in the Vedic corpus, which the *Mīmāṃsā* took to be

unquestionably valid (because of its *apauruṣeyatva*, freedom from personal errors, including that of a possible deity).

So here is finally the difference, in formal expression (again, $\emptyset$ is the operator for the deontic or obligatory force) and the pair obeyed-disobeyed is the counterpart of true-false:¹²

Grammarians

<i>sūtra</i> (event):	$F(x)$	the door is locked (i)
<i>prasajya-pratiṣedha</i> :	$\emptyset [\neg F(x)]$	you may not unlock this door (ii)
		(negation of the predicate, as in Aristotelian logic; governed by principle of noncontradiction)
<i>paryudāsa</i> :	$\emptyset F(\neg x)$	you may unlock not this, the other door (iii)
		(not well formed negation; not governed by principle of noncontradiction, as in Quine also)

Mīmāṃsā

(event):	$F(x)$	the door is locked (iv)
<i>vidhi</i> (positive injunction):	$\emptyset[F(x)]$	the door ought to be locked (v)
<i>niṣedha</i> (strict prohibition):	$\emptyset[\neg F(x)]$	the door ought-not to be locked (vi)
<i>paryudāsa</i> I (exclusion):	$\emptyset[\neg F(x)]$	the door need not be locked
(embeds <i>prasajya-niṣedha</i>)		(vii)
<i>paryudāsa</i> II (inclusive exclusion):	$\emptyset[F(\neg x)]$	not this, another door need to
(embeds <i>prasajya-pratiṣedha</i>)		be locked (viii)
The anomaly or ‘wild-card’ here is:	$\neg \emptyset[F(x)]$	you told me not to lock the door (ix)
		(ambiguous/disobeying)

The Naiyāyikas, from what I understand to be their thinking, reduce negation to two – at most three – main kinds of negation. From the list given earlier by Kumārila Bhaṭṭa,

¹² I am grateful to Staal – when I was very confused by the Mīmāṃsā formulations, I went to Staal personally back in 1981, and we discussed some Mīmāṃsā texts together in Berkeley many moons ago.

they accept the ‘not-yet’ (*prāgabdhāva*), ‘no-more’ (*dhvaṃsa*), and – if J L Shaw is right¹³ – ‘never’ (*atyantābhāva*). I leave it to the more able and vociferous scholars of Nyāya to elaborate on the Nyāya theory of negation and its difference from the Mīmāṃsāka’s theory that I have sketched above, and also to show what the Nyāya owes to the Mīmāṃsā in developing its particular view in all its symbolic and logical sophistication, particularly when it comes to double negation and contradictions.

2. Jaina *anekāntavāda* and *syādvāda*

Somewhere during the antiquity the Jaina tradition – a ‘dual’ system in the Śramaṇa paradigm (forest-based ascetical yoga-orthopraxy) with Buddhism, though preceding it – enunciated a radical critique in recognition of the epistemological instability in our ability to capture and grasp all of reality, or definitively even any point within it, for reality is more complex and multidimensional than we might realize or in our positivist hubris acknowledge. Some have averred that Jainism is more “accepting of all views” than Buddhism is – characteristically “rejecting of all views”; but as we shall see Jainism betrays a more exclusion-inclusive or conditional denial position along the lines of *prasajya-paryudāsa* (II) of the Mīmāṃsā, though somewhat more complex than even that.

A well-known parable is presented – viz., of an elephant and five blind-folded men (never having encountered the creature before) who are asked to describe the species; each man touches different parts of the animal and each reports that the elephant is whatever part of the animal each happens to be feeling: trunk, legs, ear-flaps, tail, torso (i.e. the particular characteristic). In other words, each came up with a partial truth as none could feel the animal in its magnificent fullness or conjure up a 3-dimensional image from all angles as those blessed with vision are able to, most often.

We cannot know anything with absolute certainty (*tattvānārtha*); we are forever compromised in our knowledge and fall short of the truth as it is. What is possible though is

¹³ Shaw [23] (pp.144-45) classes them under ‘relational absences’, which certain caveats built into the “temporal relation as the limiting relation of the property of being the counterpositive.” A counterpositive is the negatum of a negation. Although in his other papers on negation, Shaw limits Nyāya negation to two main kinds: relational absence and mutual absence, represented respectively by (1) *x* is not in *y*, or *x* does not occur in *y*, or the absence of *x* occurring in *y*; and (2) *x* is not *y*, or *x* is different from *y*; where ‘*x*’ and ‘*y*’ are non-empty terms, and their counterpositive are: (1’) *x* is in *y*, or *x* occurs in *y*, and (2’) *x* is *y*. I am indeed grateful to Shaw for sharing his papers on negation with me, and I have drawn liberally from with his permission. See also Shaw [24] (pp. 57-78); [25]; [23] (p.144). See also J L Shaw on double negation that pertains to this discussion [22] (pp. 224-237).

to make known reality – or the truth in a *given* situation – through a series of partially true statements, without committing ourselves to any one among them exclusively. This may sound like a distant echo of the fanciful post-modern obsession with relativism; perhaps so. But what this points to counterfactually is the perniciousness of the absolutist and authoritarian tendencies in our lived reality. We tend to tenaciously hold on to the view, even with little foreknowledge or scrutinizing investigation, we come up with or receive from our own kind, or from adulterated sources – such as the media and our political leaders –, and often out of pride or vanity are not able to let go of the view. In this way we render partial truths, even untruths, into full truths, all because we want to believe and not readily confess to our faults or any shortcomings in our epistemological forays.

The ontological component of the *anekāntavāda* thesis proceeds via its logical corollary of a seven-step formulation, *sapta-bhaṅgī*, within a form of dialectical reasoning or, better, conditioned predication, called *syādvāda*, (semantics of possibilities)¹⁴ Technical details aside, this is what it looks like (adapted from Matilal [13], (adopt operator *S*, *Syāt*: somehow or from a point of view) :

- (1) *Syād asti* (S_1 , somehow, i.e., from some *particular* point of view, a thing may be said to exist as itself)
- (2) *Syād nāsti* (S_2 , somehow, from *another* point of view, the thing does not exist as itself, but possibly as something else)
- (3) *Syād asti nāsti* (S_3 , taking both angles of (1) and (2) together, there is affirmation of existence as itself from one point of view and of non-existence of itself from another)
- (4) *Syād avaktavya* (S_4 , despite both views being present – i.e. existent and non-existent simultaneously–, somehow the thing is indescribable)
- (5) *Syād asti avaktavya* (S_5 , a combination of the first and the fourth forms of predication; somehow the thing is itself and still indescribable or indeterminate)
- (6) *Syād nāsti avaktavya* (S_6 , a combination of the second and the fourth forms; somehow there is non-existence of itself and is still indescribable or indeterminate)

¹⁴ There is tendency sometimes to collapse *anekāntavāda* with *syādvāda*, but I believe it makes for more precision to keep them apart and see them as interactive reasoning.

- (7) *Syād asti nāsti avaktavya* (S_7 , a combination of the first, second and fourth forms of judgment; somehow the thing is existent as itself, is non-existent as itself, and yet is describable or indeterminate).

Here one has to postulate ‘is’, ‘is not’ and ‘indescribable’ as primitive operators. There is an objection from some quarters that the argument is well and truly over with step 4, as it violates the law of contradiction and therefore renders 5-onwards as redundant speculations or obfuscations. However, that would be to misunderstand the function of the operator ‘indescribable’: it is because a contradiction is discerned that the move is made towards overcoming the contradiction, or turning it onto a quasi-paradoxical trope (where the negation of the excluded middle instead is anticipated, and then the negation of that too). And this is done not by affirming one side or the other – and jettisoning off the flawed side as though we were locked inside the limits of a binary or simple opposites – but rather by locating another standpoint that might transcend the ground (*Grund*) on which the contradiction has apparently occurred; or be ‘gifted’ another viewpoint, however indeterminate. Thus the table might be brown from John’s perspective and blue from Jill’s perspective; but if there is no observer we cannot say with any definiteness whether the table is brown or blue. And hence it makes sense to go over the steps again combining the fourth with the first, second and third, to see which one if any of the perspectives is valid or even privileged. In the end, perhaps none is: that is the predominant reading.

The long and short of it is that the Jaina logician is here attempting to capture a lacuna in our efforts at knowing anything in its nakedness as it were; reality is multidimensional or varied and even with all the strides we may have made in phenomenology and the sciences we are still not anywhere near uncovering the full truth about anything or any situation let alone in respect of the whole of metaphysics and cosmology. We may hear whispers of Heisenberg’s uncertainty principle read as indeterminacy in Jaina nondualism (implying that, the element of subjective intervention in any attempted objective observation cannot be ruled out: in measuring time, the instrument of measure – human consciousness and the “eye” of the machine – may have an impact on the outcome as much as time “out there” will have). The same goes for our beliefs in ethics, religion and aesthetics; and all the more confounding when we are trying to “observe” certain supposedly existent but absent phenomena: such as “dark matter” and “dark energy”, or neutrinos. It is sheer hubris to maintain that we have the full-throttle on knowledge in any of these areas: we are strangers in our own homes; how much more in the homes of others?

This phenomenology of 'strangification' (German , *Verfremdung*), whereby we translate language-game A into terms understandable in language-game B, despite seemingly incommensurable differences, should be welcomed by us as a heuristic possibility and an invitation to explore further and deeper beliefs and practices of others; or as Nietzsche too reminded us, we should open ourselves to *perspectivism*¹⁵. Each perspective captures different aspects of the ultimate reality and none can claim to be in possession of the whole truth. So *syādvāda* – sometimes mistakenly rendered as 'maybe-ism', a 'perhaps-so' perspective – supplements and reinforces its corollary, leading to *anekāntavāda*, which literally means 'No one-view', and it embeds the moral lesson: *not holding on to any one view*, inconsistencies notwithstanding, for the contrary might be true in another possible world in another time, etc. "This is my cup", as a statement of what I might be holding in my hand, may just turn out be a false statement: that it is a fools-cap that cannot hold water but you are hypnotized into believing it to be a cup; or alternatively, my statement was intended to point to the absence of tea in the vestibule more than a description of what the object in my hand is. Toleration, it follows, is an implicative virtue derived from the combined operations of *anekāntavāda* and *syādvāda*.

So summing up this part, the Jain standpoint is called *nayavāda*. With *syādvāda* there is shift to the semantic structure of thinking, conditionality of assertions. So here we are given several partial (incomplete) views; the tensions and oppositions between them is tolerated and no attempt is made toward a grand synthesis to iron out the differential views. No commitment is made to any one particular view: multiple (modal) possibilities are admitted. E.g. if we say 'Here is a jar of x; if we remove its x-ness, it must cease to exist', the conclusion might be true in some cases, though not in others, for x may represent only such non-essential qualities or things as butter, or some living being's name.

One way of interpreting is to see the background, viz:

1. No distinction is made between general and special properties of an existential being asserted.
2. deals exclusively with the general qualities of things.
3. the particular: the standpoint of particularity.
4. things as they exist in the present, and without regard to their past and future aspects.

¹⁵ On the difference between 'perspectivism' and 'relativism' as understood in contemporary thought, see Bilimoria [4].

5. exclusive attention to number, gender, tense, etc., of the words employed.
6. distinguishes between synonymous words on etymological grounds.
7. such like, hence the point of view which describes things by words expressing their special functions, e.g., to call a man a devotee because of his being engaged in devotion.

Fallacies will be involved if we fail to adhere to the proper function of predication (e.g. mixing up general with particular properties; incorporates naturalistic fallacies, causistry and so on). In any event, in a simplified, more prosaic formulation, this would look like thus:

1. A thing *is* existent – from a certain point of view.
2. It is *non*-existent – from another point of view.
3. It is *both* existent and non-existent *in turn* – from a third point of view.
4. It is *indescribable* – that is, both an existent and non-existent simultaneously – from a fourth point of view.
5. It *is* existent and *indescribable* – from a fifth point of view
6. It *is non*-existent and *indescribable* – from a sixth point of view.
7. It is *both* existent and *non*-existent and *indescribable* – from a seventh point of view.

3. Derivations of Buddhist **dialetheia; the work of *catuṣkoṭi***

I now wish to relate the foregoing disquisition and formulae explored to the logic of *catuṣkoṭi* in Madhyamaka Buddhism (with some references to Theravāda, Pāli *nikāyas* as well). Each *koṭi* is regarded as a proposition, and for this reason since the 1930s the *catuṣkoṭi* has come to be known as the tetralemma (or quadruple proposition or only just if at all four-valued semantics as distinct from semantic of conditionals as in relevant logic).¹⁶

The transition proceeds in this manner. The nature of postulated entity and relation to its predicate is investigated. All ('imaginable' conceptual) possibilities are exhausted in the four-cornered alternatives, otherwise known as *catuṣkoṭi* (fourfold negation):

¹⁶ For further discussion, see Williams [27, 246] here Robinson is cited; and especially the chapter by D. Seyfort Ruegg [18, 213-277]; see also Garfield [7, 46].

- I. There is a positive affirmation (p)
- II. A negative retraction or negation ($\neg p$)
- III. Conjunction of the positive and the negation ($p \vee \neg p$)
- IV. (Bi)negation of both the positive and the negation $\neg (p \wedge \neg p)$.

Comment.

- The concluding lemma is of the *pratiṣeda* form (that we saw in the Mīmāṃsā discussion above).
- If it is a simple negation (relational) then it is of the *paryudāsapraṭiṣeda* (*anonyābhāva*) form.
- If it is absolute negation then it is of the *prasajyapraṭiṣeda* (*atyantābhāva*) form.

The tetralemma is applied to unfurl the truth (coherency or incoherence) of concepts such as causation, self, and all such factors at conventional level (*samvṛti*) of reality (*tattva*), of the ultimate (*paramārtha*), the existence of *tathāgata* (Buddha-nature) and *nirvāṇa* or emptiness (in *Mahāyāna*). Applied to the first, we get : something “x is

- (i) Caused by itself (p)
- (ii) From another ($\neg p$)
- (iii) From both ($p \vee \neg p$)
- (iv) From neither p nor not p (no cause or inexplicable) $\neg (p \wedge \neg p)$ ”

This is what is said from conventional reality, but none is assertable from the standpoint of ultimate reality (meaning, there is no absolute negation).

Hence, from the point of view of ultimate reality, which is devoid of conceptualization and description, none of the above holds.

Another way of describing the reasoning here is that Nāgārjuna rejects both identity and difference. Since judgement is a unit of thought, it takes the form ‘S is P’. If identity is asserted, then either the nature of both is lost, and hence false, or we have not said anything. If S and P are different, then identity is asserted; hence it is false. If both identity and difference are asserted, then it contradicts. Since there is no other category than these two as a relation between them, assertion of it does not arise.¹⁷ Applying this analysis to the

¹⁷ I am grateful to J L Shaw for this summary from K. K. Inada [10].

case of cause and effect, the assertion of identity between cause and effect leads to a paradox. Similarly, assertion of difference leads to a paradox. The assertion of both is an explicit contradiction. Since there is no other category different from identity and difference, there is no fourth alternative: they all stand rejected. Hence reality is free from each of the four alternatives.

A question that has plagued most commentators, classical and modern, is whether there is an affirmation of the contradictory (*virodha*) of what has been negated (qua iii) (which might be acceptable in *paryudāsa* negation in the syntactical form qua the Grammarians)?

Commentator Candrakīrti (eight century C E) said 'no'; the Buddha preached *pratītyasamutpāda*, entities arise in dependence on causes and conditions; so he has basically denied all eight negations. We are urged to look upon the schemata as a *prasajya-pratiṣedha* type of negation; not absolute negation but relational negation [6] (p. 188).

Modern commentators have variously argued that contrary to appearances, Nāgārjuna (2nd century CE Indian Buddhist philosopher par excellence) does not reject the principles of non-contradiction and excluded middle; what he rejects is the view that entities or essences possess own being, self-nature (*svabhāva*) (e.g. as maintained by the Abhidharma and Vedānta schools), or that there is absolute nonexistence.

So then we get Nāgārjuna stating for the Buddha:

All is just so
or not just so,
both just so and not just so,
neither just so nor not just so: this is the graded teaching of the Buddhas.

Here Nāgārjuna is not denying the truth merely of universal or categorical statements of the form "Every/No ... is/is not", but doing more.

Does this lead to a paradox, or a rejection of non-contradiction? Para-consistent philosophers, such as Graham Priest and Jay Garfield [8] are not worried about either: paradoxes can be resolved, and contradictions are not any longer a concern (all

contradictions are true or bare out some truth), and besides, should not be seen in isolation of the larger project at stake.

Same goes for the teachings of self, no-self, 'there is no self and no non-self.' (Candrakīrti) But the teaching of the self adverts to other schools in the larger Indian philosophical system, not the teachings of the Buddha as such.

It is a view toward weakening attachment to a real substantial self so that one can see emptiness of the view. But about 'no non-self' = no *anātman*?: that too can be an attachment (or taking *an-anātman* as an essence of some universal natural kind), when the truth is indeterminate (dependent-origination might be excluded thereby, the bundle of aggregates, *skandha*, view, which is the Buddha's teachings).

In this way, the Buddha is said to have avoided both the *vikalpa* or conceptualization that posits the extreme of eternalism (onto-theo-logos) and nihilism (the other extreme); which the Middle Way eschews; hence the middle position (*madhyamaka*) is taken. [18, 9]

It is very interesting that the tropes of *sat* and *asat*, that we saw operating in Ṛg Veda X.129 [*nāsadīya*], re-appear, e.g. in Candrakīrti's formulation of binomial negation:

*sad asat sadasac ceti sadasan seti ca kramah
eṣa prayojyo vidvadbhir ekatvādiṣu nityaśah*

As Ruegg explains aptly: 'This type of analysis of a problem thus constitutes one of the basic methods used by the Mādhyamikas to establish the inapplicability of any imaginable conceptual position – positive, negative, or some combination of these – that might be taken as the subject of an existential proposition and becomes one of the set of binary (binomial) doctrinal extremes (*antadvaya*).'[18] (So its negation resonates with Mīmāṃsā's *antyantābhāva*.)

I believe reading backwards, Madhyamakas have solved the paradox or conundrum that the bards of Ṛg Veda began with, to underscore the indeterminacy of the Big Questions haunting any deep inquiry.

From this reasoning utilizing 'neither ... nor' Nāgārjuna is able to present at least one interpretation of emptiness:

'Whatever exists in dependence [on a cause] is not that [cause] nor is it different [from that cause]. Therefore [the cause on which there is dependence] is neither destroyed nor [is it] eternal.' [18, 10, 7]

Reality might be otherwise than what we tend to dichotomize in discursive conceptualization, multiplying entities and factors which may not be so warranted, from the view of the enlightened.

So the strategy of the 'neither... nor' articulation is to reveal 'the irrationality of something, that is, the antinomic and logically inconsistent character of causality operating with the concept of *bhāvas* [entities] endowed [as if] with the real nature (*svabhāva*). [18]

But Nāgārjuna cautions that even 'emptiness' runs the danger of becoming another absolute designation (like eternalism or nihilism), or that emptiness has self-nature, is inherently an existent, etc.

Using *modus tollens* in conventional dichotomized disposition, to be empty entails 'not empty', both and neither; yes, for the sake of designation [such] is stated.

Śūnyatā applies to all dharma, all entities.

So suppose 'empty' is the null consequence; would you say that of the Buddha too? The answer is: Yes, and no.

To this there is a firm response also, we draw from Tibetan commentaries for their clarity; so we have Garfield elaborating (via Tsong-khapa's restatement) to surmise on the intent of the this tetralemma, thus:

We do not assert "empty"

We do not assert "nonempty"

We neither assert both nor neither

They are asserted only for the purposes of designation [7] (p. 45).

Empty does *not* entail non-existent; people might mistake it to be so; nor do we say non-empty, that is, he exists inherently (so that designation has to be avoided)

And not both either, nor neither (that he exists nor does not exist ultimately); 'none of the four alternatives can be maintained' [ibid].

Or, 'Nāgārjuna reminds us that emptiness is the relinquishing of all view, and that anyone for whom emptiness becomes a view is hopeless'. [Ibid]

But, just for conventional purposes we say empty, non-empty, both and neither: for purposes of designation for those people to whom we are speaking, as long as we are clear that emptiness means the emptiness of essential nature as an understanding of ultimate truth, for there is no ultimate reality other than the conventional reality (ultimate truth is the

truth about the inapplicability of certain designation to conventional reality – such as the extremes of inherent existence, eternalism or reification, and nihilism. Dependent existence does not imply non-existence, only that no entity exists independently of conditions and causes, which too are dependent on other conditions and causes, and so on and so forth. (See [19])

In *Vigraha-vyavārtanī*, Nāgārjuna is clear that he holds no views; even his statements are all empty, and this does not nullify his argument that all conventional designations are empty, all views are empty; but does not make just anything true, nor that nothing whatever is true.

In the remainder of the paper. I wish to back-track a little in (contemporary) time and consider some alternative readings of the *caṭuskoṭi*. K N Jayatilleke, working from outside the Mahāyāna tradition (the Theravādan tradition to be precise), tried to demonstrate that the *caṭuskoṭi* is propositional and disjunctive, that is to say, in respect of propositions iii. and iv. the assertions are not a conjunction of i. and ii, and nor their bi-negation either, respectively [18] (p. 48) ; the claim he makes is that Nāgārjuna's "method is intended to reveal the limitations of logic and language, and the principle of negative application of the *caṭuskoṭi* derives from the conceptual scheme which consists of the four dyadic propositions such that their totality leads to contradiction and hence to total annihilation. The breakdown of symbolism." [11] (pp. 47-8) The negative use of *caṭuskoṭi* (in Ruegg's reading of Jayatilleke) was then developed for a religious reason, to transcend the limits of logical and linguistic conventions [11,50], "demonstrating the self-contradictory nature of the referential object of the proposition". Jayatilleke is unabashed in not wishing to rescue Nāgārjuna from charges of irrationality, only that it serves a 'higher order' purpose.

R. H. Robinson, for his part, proffered the unusual suggestion that the 4th lemma should be read as:

All x is A and all x is not-A

He varied it to read 'No x is A and no x is not-A'

(Aristotelean form; true 'when x is null') [17]

Jayatilleke had tried to save this puzzling formulation by suggesting it be read as:

Some x is A and some (other) x is not-A

Or S is partly A and partly not-A

So the third lemma is a conjunction of first and second lemmas; whereas the fourth is a conjunction of the contrary-wise or conflicting conjuncts of the third lemma, to yield, e.g., ‘the universe is finite in one dimension and infinite in another S’.

Likewise, Frits Staal did not believe there is much point in trying to save *caṭuskoṭi* from the charges of inconsistency, which only appears so if *caṭuskoṭi* is taken as a statement, while in fact it is a "pedagogical and therapeutic device"; still, he is eager to maintain that Mādhyamikas are not throwing the baby out with the bathwater, i.e., rejecting the principle of non-contradiction. What they in fact are doing is rejecting the principle of excluded middle. So he explains (paraphrased):

If we reject the fourth clause [*caṭuskoṭi*], as the Mādhyamika philosophers did, we are free to accept the principle of excluded middle. But we don't have to, since denying the denial of the excluded middle only implied the excluded middle if we accept the principle of double negation, which is itself equivalent to the excluded middle (Staal cited [18] (p. 48).

Staal concluded: When the Mādhyamika philosophers negates a proposition, it does not follow that he himself accepts the negation of the proposition. Accordingly, there are other alternatives than *A and not-A*, the principle of the excluded middle does not hold [18] (p. 44).

Staal was palpably wrong; excluded middle *is* essential to *caṭuskoṭi*, and also to the aligned *prasaṅga* (*reductio*); two contradictories will result in null. Even if the excluded middle is rejected, this does not block the further rejection of contradiction. Staal's attitude of the sacrosanct status of contradictions in the Indic tradition stands at the critical edge and is discarded by the later developments, such as in Priest and Garfield's reading of the work of *caṭuskoṭi*. [8]

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If we interpret *caṭuskoṭi* as *prasajya* kind (exclusion negation), then according to Matilal “the apparent contradiction of the joint negation of the four-fold alternatives will disappear” [14] (p. 164), for “denial of a position does not necessarily involve commitment to any other position.”

But Matilal overlooks that contradictoriness is essential to the dialectical synthesis (especially with respect to ii and iv). Must contradictions disappear? Our humble response is that dialetheism prevails: P is true, so is non-P; contradictions are true about some state of affairs (e.g. greed in respect of capitalism and, more so, corporatism).

D. Seyfort Ruegg

In his early thinking on the matter Seyfort Ruegg had emphasized the point that, contrary to the opinion of some scholars, Madhyamaka reasoning (*yukti*) is based on the twin pillars of the principles of non-contradiction and excluded middle; and the negation of the four *koṭis* then serves to bring to a stop all discursive thinking consisting of conceptual development (*prapañca*) and dichotomizing conceptualization (*vikalpa*) involving the solidarity of complementary opposites expressed as affirmation (*vidhi*) and negation (*pratiṣedha*). When the four *koṭis* - taken as being exhaustive of all imaginable positive and negative positions within discursive thought - have been used up, there remains no 'third' (indeterminate or putatively dialectical) position between the positive and negative which discursive thought could then seize on and cling to; and the mind therefore becomes still. This exhaustion - and 'zeroing' is of all the discursively conceivable extreme positions by means of the negation of all four *koṭis* corresponds to the Middle Way, and to reality understood by the Mādhyamika as emptiness of own being and non-substantiality of all factors of existence.

Finally then, the questions we are left with, are the following:

- Has Madhyamaka school moved to three, even four-valued logic, or is it still functioning within two-valued logic? Here one might observe that each of the *koṭi* does not correspond to single truth-value, especially since four-valuedness matches with, e.g., Belnap & Dunn's system of First Degree Entailment where T = "true (only)", F = "false (only)", B = "both (true and false)", and N = "none" (neither true nor false); indeed, each of the four *koṭis* is a denial of the preceding four-valued assertions. Such as observation has led logicians such as Priest to suggest that *catuskoṭi* corresponds to a rejection of the preceding four values and an ensuing affirmation of a fifth value of "silence" (whereforth one cannot speak).¹⁸
- Has it rejected or, more strongly, denied the principle of non-contradiction?

¹⁸ I am grateful to one of the anonymous reviewers for this input by way of clarification (reference source undisclosed).

- And also excluded middle?
- What are the logical and epistemological consequences if either or both moves are made?

These questions are troubling only if we take *caṭuskoṭi* as propositionally referential, i.e. logical and not as arresting ontological speculations, the 'views' of essential nature (*svabhāva*), reification, annihilation, etc. And it makes better sense when we read *caṭuskoṭi* as a gem within a large encrustment of an over 2 millennia old pondering on the nature of reality and Nothingness – as with Heidegger against the grain of Biblical *creatio ex nihilo*.

Concluding comment

For my purposes, what I take away from the disquisition we have engaged in this paper is the preparedness in ancient Hindu, Jaina and Buddhist thought as they evolved to take seriously the possibility of negation in its various forms and permutations as a ground, or the lurking empty space, in which conventional truths arise that is descriptive of an equally conventional reality, albeit without definite determinacy.

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