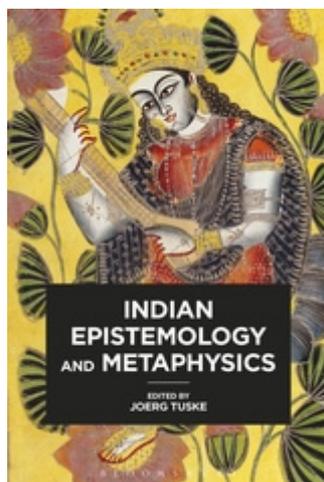


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Jainism. Disambiguate the Ambiguous*

Piotr Balcerowicz

Ceci n'est pas une pipe, c'est une devise:

‘Half a bee, philosophically,
Must ipso facto half not be.
But half a bee, has got to be,
Vis a vis its entity.
—D’you see?
But can a bee be said to be
Or not to be an entire bee,
When half the bee is not a bee,
Due to some ancient injury.’¹

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¹ ‘Eric the half a bee’, an excerpt, *Monty Python Sings* CD booklet, 1989 Virgin Records, p. 10.

How can we communicate in a language which is by nature imprecise and ambiguous? For instance, what colour is the honey bee, in one word? Black? Yellow? Imagine a simple quiz, or crossword, when one is required to fill in the colour and has a limited space for it. If I write 'black', do I lie, while neglecting the yellow stripes? If I answer 'yellow', is my response false which ignores the black parts? Would it not be unnatural, one could argue, to impose such limitations on our language? Why should one do it in the first place? But isn't this precisely what we always do with any natural language? Suppose we have a series of items on display: honey bees, charcoal, white storks and a flag of Afghanistan, and we are asked: 'Which of these is yellow?' Should the correct reply be 'the honey bees' or 'none'? Or was the question formulated incorrectly, being imprecise? Which conditions should the question meet in order to be precise so that one could provide a correct reply? In ordinary language, however, both the question 'Which is yellow?' and the reply 'The honey bees are yellow' would be well understood, whereas a precise question, for instance, 'Which of these items which combine black parts of their exoskeleton, substance, plumage and fabric with some other parts featuring other colours, except for charcoal which does not combine black with any other colour, contains yellow parts?', would be considered awkward, to say the least. Similarly, a precise reply of the sort 'No item is yellow, except for honey bees, which display some yellow colour in some of their stripes, though the fact is that the black is found primarily in the exoskeleton, with yellow pigments dominating in the hair, colour patterns depending on the combination 7 pairs of genes which can be responsible for 2181 different genotypes', would similarly sound outlandish. Despite being seemingly precise, the reply would violate most of the Gricean conversational maxims, such as the maxim of quantity (speaker's contribution should be as informative as required), relevance (speaker's contribution should relate to the purpose of exchange and avoid unnecessary digressions) and manner (speaker's contribution should avoid obscurity and ambiguity).

What is the honey bee? It is defined as a specimen of a subset of the bees of the genus *Apis* and family *Apidae* which are identified by the intense production of honey, so a honey bee is a bee which produces honey. Suppose a honey bee does not produce honey at all but otherwise looks and behaves like all honey bees; is it a honey bee or not, or a partial honey bee, i.e. half a bee? Now suppose we see a honey bee flying with the collected nectar and pollen back to the hive. What would be the truth value of an explanation given by a parent to the child: "Look, the bee is making honey"? Obviously, the bee is *not* making honey at this precise moment but is performing an action which is in a series of actions which jointly constitute the *process* of making honey.

All the above, which may sound at first either trivial or silly, points to something extremely important, namely that in our everyday communication, but in fact also when it comes to the usage of strictly formalised language, we heavily rely on the context of the speech act, which by definition provides just a fraction of information, whereas most of it is supplied by the context. It is neither possible nor necessary to provide all information in a speech act, a sentence, which is by definition ambiguous. It is ambiguous because it is necessarily incomplete for, in a natural language, all utterances stand in need of additional analysis which has to take into account other factors such as context, as in the exchange: 'Could you tell me what time it is?' (which is formally a yes/no question!)—'The supermarket is closed.'—'But my brother has his birthday tonight!'—'There's a petrol station on the corner.' These seemingly unrelated sentences shouldn't make any sense, but they apparently do.

Why? How do we manage to convey the meanings, ideas, thoughts and description, if we do it with incomplete and ambiguous sentences? How is it possible that ambiguous does not mean indefinite? These questions, including the process of decoding from utterance → proposition → meaning, concern what has been a matter of interest for pragmatic logic in the West over a few decades. But precisely the same questions, addressed in India centuries before Western philosophers did that, led to the development of the doctrine of multiplexity of reality (*anekānta-vāda*) by the followers of Jainism which matured in the period between fifth–seventh centuries CE, but which had its roots two and a half millennia back.

The term itself, *anekānta-vāda*, came to be as closely associated with Jainism as, for instance, *kṣaṇika-vāda*, or the doctrine of momentariness, with Buddhism, a religious and philosophical rival of Jainism of roughly similar antiquity. It literally means that the world, and every entity in it, is by nature ‘of not one (*an-eka*) aspect (*anta*) or facet’. In other words, the ‘cut-gem like’ world of infinite facets, and everything that exists, is a complex structure, both internally (being a whole consisting of infinite facets amenable to infinite modes of expression) and externally (being related to all other entities through infinite relations). For this reason it is not possible to provide a full, i.e. exhaustive, account of anything, and what we do with every speech act and proposition, also reflected in thought, is to provide just a tiny slice of the item we refer to. We select only those aspects of it which we consider relevant to our purposes. Like ourselves, the recipients of our communications have at their disposal an effective method or strategy to relate the partial message to reality in a meaningful manner so that they understand the meaning. The Jaina doctrine of multiplexity of reality has therefore two basic aspects, ontological and semantic-logical.

Both structurally, in the sense how the theory is structurally and logically constructed, and historically, how and why it really began, ontology has priority over epistemology and semantics. Historically speaking, the Jaina theory seems to be a dialectical interplay between two basic standpoints concerning the nature of the world and all phenomena. One classical extreme worldview in ancient India was eternalism (*śāśvata-vāda*), which postulates that all that really exists has to be eternal, permanent, unchanging, such as the views professed by the Sāṃkhya school. All phenomenal world is potentially contained, or dormant, in the unmanifest primordial factor (*prakṛti*), which perdures and emanates itself through a quasi-evolution, a view which would resemble that of Parmenides of Elea: what really exists cannot cease to exist, and nothing which does not exist cannot come into being. The other extreme worldview was that of annihilationism (*uccheda-vāda*) with its claim that all that exists necessarily exists just for a short while, which for the Buddhists and Jainas was the perspective adopted by the materialists. However, for the Jainas, an instantiation of annihilationism would also be Buddhism with its doctrine of momentariness (*kṣaṇika-vāda*), or of transitoriness, according to which all that exists appears just for a moment in order to disappear the very next moment and produce its semblance. This position would resemble that of Heraclitus of Ephesus, who posited that the whole world and its phenomena are in a perpetual flux (*πάντα ῥεῖ*).

For the Jainas it was originally a problem of change and identity. If everything were permanent, how could we account for the change and process we perceive all around us? How could a living being be a living entity, if to live entails to undergo change and progress through a process? The living being *per se*, either called ‘soul’ (*jīva*) or ‘agent’ (*ātman*), consists in thought, cognition and experience, which by definition are processes, and a process cannot exist without change and transformation. An

absolutely permanent, in the sense of eternal and changeless, living being would be dead, a contradiction in terms. On the other hand, how can one preserve its identity, if it undergoes a constant process of change? Identity seems to contradict change. What does it mean to say that Theodore (Devadatta) we know now is the same person we met 15 years ago, if he has been in the constant process of change? The present Theodore must therefore be a different entity than the erstwhile Theodore, hence he cannot share his identity with his earlier alter-ego. What is it that remains unchanging in any entity by the force of which we can identify it as the same thing? The system of Vaiśeṣika, or the school of the philosophy of nature, postulated a special kind of additional entity, or a category, known as individuator (*viśeṣa*) which would attach to every individual thing to make it singular, identifiable and self-same. For the Jainas that was a device which would multiply entities beyond necessity, and in addition was not attested to empirically.

The Jainas realistically considered that, without any need to take recourse to such imperceptible and unaccountable entities as individuators, the reality combines both natures, the permanent and transitory. In fact, they distinguished four interrelated layers, or aspects, in every individual entity. The aspect which was responsible for the persistence in time and identifiability of an individual entity was called substance (*dravya*). Substances could not exist alone: they are necessarily accompanied by, and distinguishable from each other through, a set of qualities (*guṇa*) they possess. These were succinctly defined as follows: 'The attributes through which a substance, such as the soul (*jīva*) and the non-soul (*ajīva*), can be recognised are known as sensorily perceptible and imperceptible qualities (*guṇa*), which are characterised by essence different from the substance' (PSā 2.28). Qualities accompany substances in a quasi permanent manner: for instance a particular substance of earth is characterised and individuated by a particular set of qualities such as colour, taste, smell and touch. These may gradually transform, but will never disappear: earth will always be possessed of such a set of qualities. While substances were to explain the preservation of identity of entities, qualities were conceived of as their distinguishing properties for, theoretically speaking, one thing is to identify an entity as itself, but another to distinguish it from other entities. This theory was clearly an extension of the Vaiśeṣika categorisation of entities, the first two (out of classical six) being substances (*dravya*) and qualities (*guṇa*). The Jainas added another ontic layer which was to explain the change. These were modes (*pariyāya*), or discernible modifications, which qualified both substances and qualities. A change in colour or shade was expressed through modes, e.g. one mode (darker shade of blue) replacing another. In fact, both substances and their qualities were thought of to undergo incessant process of transformation and change, and precisely that aspect was verbalised as modes. Both qualities and modes could not be suspended in the air: they had to be located in or related to a particular substratum, i.e. in their substance. While modes were that layer of continuously changing aspect of a thing (or event, phenomenon, etc.) possessed of its two other aspects, i.e. substance and qualities, which was observable and nameable, things also possessed a changing aspect which was sometimes palpable, but often hardly discernible in a moment-to-moment observation. Only a longer period of time would allow one to state that a minor change has taken place, but even then the transformations were so microscopic and almost undetectable that there was no adequate vocabulary to name them. These were called ineffable, transient occurrences (*vivarta*, *vartanā*), which were frequently neglected in Jaina expositions of the theory, and even more so by modern researchers. In other words, modifications

and transformations, be them rapid and insignificant, as long as we could consciously observe them and find a linguistic description for them, would be classified as modes. Those which would not enter the threshold of such discernibility and nameability (hence their actual existence, even though amenable to non-conceptual perception, would be either beyond our conceptual judgement or be a matter of a *post factum* inference) would be termed transient occurrences. Every phenomenon was therefore considered a complex whole consisting of four such ontic layers, two of which would account for permanence and preservation of its identity (substances and qualities), and in these aspects a thing was immutable and self-same, and two would explain continuous change and transformation (modes and transient occurrences). This is how the Jainas took their own ‘middle path’ vis-à-vis the ontic character of every entity, which—unlike the Buddhist middle way of avoiding two extremes—consisted in a combination of such seemingly incompatible views of eternalism and nihilism. However, to say that one and the same thing is both permanent, hence immutable, and changing, ergo mutable, would seem to lead to obvious contradictions. A method to reconcile such standpoints in a seamless way was therefore called for.

On top of that, the Jainas maintained that all ‘that is existent is furnished with origination, annihilation and permanence’ (TS 5.29), in other words, ‘origination, continuity and destruction take place in the world, consisting of souls and matter, by way of transformation due to combination and separation’ (PSā 2.37). The continuous transformation was an inalienable feature of everything that existed, for ‘there is no object without transformation’ (PSā 1.10), but it also implied that through it entities would conjoin to produce larger structures or disjoin, an element of relation (involved in both processes of conjoining and disjoining) being most crucial, for the Jainas believed that all things are directly or indirectly related to each other. These three coexisting and simultaneous aspects of existence, such as origination (*utpāda*, *udaya*), continued existence (*sthiti*, *dhrauvya*) and cessation, or disintegration (*bhaṅga*, *vyaya*, *apavarga*), were considered necessary to explain the process of change. Again, also this assumption of three aspects of existence seems to have been a response to the Buddhist theories developed primarily by the schools of Abhidharma and Sarvāstivāda which postulated either three or four, respectively, conditioned factors, known as ‘markers’ (*saṃskṛta-lakṣaṇa*), namely origination (*utpāda*), continuity (*sthiti*), deterioration (*jarā*, *vyaya*) and extinction (*bhaṅga*, *nirodha*), or second-order elementary constituents of reality (*dharma*) that were believed to attach themselves to every first-order elementary constituent of reality ‘marked’ (*lakṣya*) by them and thereby become determined in its momentary existence (*kṣaṇika*). For the Jainas, all these parallel processes were real, but concerned different aspects of one and the same entity.

As Jaina thinkers would sometimes state it, to know one thing means to know everything, inasmuch as everything is interrelated. To know one singular entity, one should be required to know both all its modes, including past and future, and its complex interrelatedness, i.e. the relations in which it entered, enters and will enter with other entities, but also relations which are precluded. Otherwise, our knowledge of the singular thing would be partial. This would lead to a paradoxical conclusion that ‘the one who does not know simultaneously all objects in all three times and in all three worlds, cannot know even a single substance with all its modes’ (PSā 1.48). A corollary of this line of thinking was the need to admit omniscience of salvific import, which was considered the ultimate spiritual goal, tantamount to absolute perfection and liberation (*mokṣa*).

Even without postulating such complex ontic structures of modes and relations enveloping each and every singular entity and determining its character, considered both self-same and changing, an accurate description of every little thing, such as communicating the actual colour of the honey bee, may pose a problem and we quickly realise that the verbal and eidetic apparatus at our disposal is extremely limited.

A handy maxim (*nyāya*) which the Jainas would frequently use was: ‘Every sentence functions with a restriction’, which expressed the limitations naturally imposed on our thoughts about reality and communication capability. In fact, our language is always a shorthand for more complex ideas and descriptions. Neither can we think of all aspects of one and the same thing simultaneously nor can we express them all in one statement. The language functions within the confines of the impossibility to express the essence of a singular thing, contextualised through all its modes of existence and relations with the rest of the world, all at once. Both our thought and the language which reflects the thought cut the reality into tiny slices, and the way the reality is portioned depends on our pragmatic needs of either action or communication. An obvious conclusion would be that every sentence and all communication is ambiguous in lacking precision and inability to provide a full account of things we would like to describe or express. How is it at all possible that despite the vagueness and equivocation ingrained in the language people do manage to communicate ideas? For certain reasons, less related to epistemology and semantics but more connected with ethics and code of monastic discipline, the Jainas proposed three different strategies to explain this paradox. Furthermore, they claimed that the process of communication based on necessarily ambiguous messages can be both disambiguated and formalised in a system. In fact, we could claim that the doctrine of multiplexity of reality was precisely such an attempt to provide formalisation of the semantic process of communication and interpretation, accomplished without the use of any symbols (surprising as it may be, the Indians abstained from the usage of symbols in epistemology, logic and semantics; unlike in traditional grammar). One of prime tasks of an ordinary language user and a philosopher alike was to precisely disambiguate the ambiguous web of names and propositions within a language. The former would do it on daily basis whereas the latter was supposed, in addition, to provide a formalised description of the disambiguation methodology.

Layers within the name

Three such disambiguation strategies were proposed by the Jainas. Historically the oldest of the three is most probably the theory of the four standpoints (*nikṣepa, nyāsa*).² It postulated four crucial theoretical determinants as tools of analysis of the semantic field of a term or singular expression: name (*nāma*), material representation (*sthāpanā*), substance (*dravya*) and actual condition (*bhāva*) of an entity analysed (TS 1.5). In this sense, four basic semantic layers should formally be distinguished.

² This doctrine most probably goes back to an ancient teacher Pārśva, mythologised and considered the twenty-third *tīrthamkāra* (‘ford maker’), who most probably lived in the sixth century BCE, perhaps 100 years before Vardhamāna Mahāvīra (died ca. 400 BCE), mythologised as the twenty-fourth *tīrthamkāra*, see BALCEROWICZ (forthcoming;: Chap. ‘13. Early *Anekānta-vāda* and the Three Figures’).

Let us take as an example the term ‘honey bee’ and its usage. Suppose an entrepreneur has established a transport company bearing the name of which is Honey Bee. In this particular context, whenever one uses the term ‘honey bee’ one does not refer to a specimen of the insect class but to a *company* bearing such a name. The statement ‘The honey bee delivered five tonnes of steel ball bearings last week’ would not make our eyebrows rise. This is the usage of the term from the standpoint of the name (*nāma-nikṣepa*). Suppose, now, I point to a photograph of a honey bee and say: ‘This is a honey bee’. One could, of course, object and say: ‘No, it’s not. It is a *photograph* of the honey bee’, and of course would be right. However, while referring to a photograph with ‘a honey bee’ we do it from the standpoint of material representation (*sthāpanā-nikṣepa*). In ordinary parlance, we do not confuse the levels of the discourse. Precisely this implied ambiguity is which was employed by René Magritte in his series of paintings *La trahison des images*, depicting a pipe with the subscript ‘Ceci n’est pas une pipe’ (‘This is not a pipe’). Despite the general need for precision and accuracy, we deliberately use ambiguous expressions and are understood, whereas the precision would lead to misunderstandings and even serious trouble in such cases. Imagine for instance a dialogue at the passport control at an airport and the officer pointing to a photograph of yours in your passport and asking: ‘Is that you?’, and you consistently insisting: ‘No, of course not’! The next semantic layer of every term is that of substance (*dravya-nikṣepa*). From this standpoint we can refer to any specimen of a subset of the bees of the genus *Apis*, whether dead or alive, working or asleep. However, to use the term ‘honey bee’ with most precision would demand that we apply it to an *Apis* specimen which is presently regurgitating, i.e. engaged in the process of making honey, which gives it its proper name. This is the usage of words from the standpoint of actual condition (*bhāva-nikṣepa*). From this standpoint, a honey bee which is not engaged in the process of regurgitation and not producing honey would not fulfil the conditions of description of ‘the honey bee’ and accordingly could not be labelled as honey bee in the true sense; it would be, at most, a... half a bee! What we do with words is precisely this: we oscillate between the four different basic layers of meanings which every term is prone to express, depending on our pragmatic needs. What allows us to select the proper meaning layer of a term is the context, the supplier of additional information. A confusion of the layers may be quite innocuous, may be a humoresque basis for jokes, but also may lead to serious problems such as cases of, say, blasphemy, when the offended side confuses the layer of the name or material representation with that of substance and interprets alleged sacrilege done to a material object as an act against a prophet, god or some other idea.

In the search of context

A term is related to its *designatum*, the designated thing, and to assign the correct relation necessitated by the context is the scope of the doctrine of standpoints. In contradistinction to it, a sentence relates to an event, process or fact, or to a thing or things in an action, state or condition. In the same way as terms, also the usage and interpretation of sentences are also context-sensitive.

One of the ways we can use sentences is to refer to particular events. The second disambiguation method developed within the doctrine of multiplexity of reality is the sevenfold method of conditionally valid predications, known as the theory of

viewpoints (*naya-vāda*).³ The starting point for this method is the sentence, not just a singular term. It helps one to allocate the proper context out of a range of possible meanings a sentence may connote. Take for instance ‘The honey bee makes honey’ (*madhu-makṣikā madhu karoti*).⁴ This particular sentence can apply to a range of possible situations, or ‘worlds’. For instance, it can refer to the whole subset of the bees of the genus *Apis* in general, and assume a form of a definition, the subject of the definition being the universal ‘honey bee’. It would still hold valid even if there were particular bees which would not fulfil the function of making honey. But the sentence may equally refer to a particular honey bee we have been watching over some time. In some other languages which do not grammatically distinguish between the continuous and simple tenses as English does, e.g. in Sanskrit or German, the same sentence can describe a current situation when a particular bee is just collecting nectar. How does the language accomplish such multiple tasks with one and the same sentence? How do the recipients of the sentence pick up the correct situation the actual utterance is intended to refer to? This issue is embedded in a more general question concerning the actual meaning of an utterance, or what is the truth value of a particular utterance which purports to describe a certain event. In this, the Jainas followed an approach, generally adopted in India, of the correspondence theory of truth: a sentence ‘*p*’ (‘it is raining’) is true when indeed *p* (when it is raining). An utterance is the actual realisation of an idea or thought in a speech act, writing or otherwise through a sequence of symbols, such as phonemes or graphic signs, of a sentence (or ‘ideal sentence’) we have in our mind. The process of communication requires that our thoughts as sentences, which have a particular meaning assigned by us, are translated into actual series of phonemes or graphic signs as utterances. How does the meaning creep back into the utterances when the recipients hear them or read them and are required to assign the proper meaning to them? This process, of course, involves the issue of assigning a truth value to such utterances, too. We are used to a straightforward relation between an utterance and its truth value as in Fig. I.

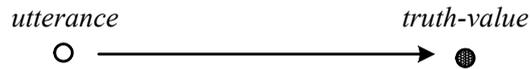


Fig. I

But clearly, such an approach, based on the simple relation ‘utterance–truth value’, is rather an inaccurate description of the whole mechanism, inasmuch as the interpretative process is intermediated by a range of additional aspects. Obviously, we have to take into consideration a range of factors to interpret a given utterance correctly, such as the speaker’s intention and linguistic conventions governing the usage of words, as in Fig. II.

³ The exposition of the *naya-vāda* in this chapter, its formalisation in particular, is based on BALCEROWICZ (2001) and (2003).

⁴ Bees (*śyāma-bhramara*) are mentioned in the context of viewpoints by JTBh 2 § 8.

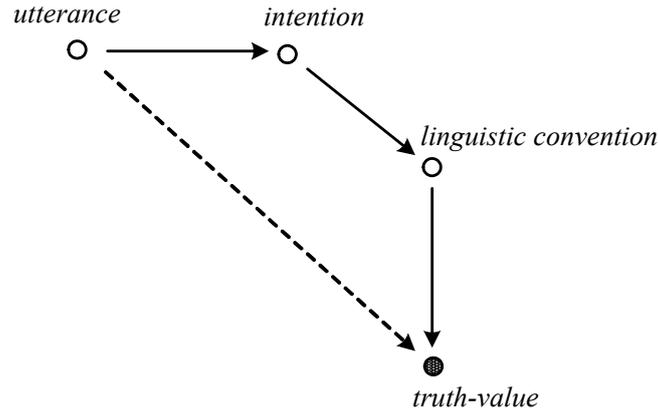


Fig. II

However, as the Jainas indicate, these two additional factors prove insufficient, and other aspects $x_1, x_2, \dots x_n$, such as time factor, universal or nominal reference, synonymy etc., have to be taken into account in order to help us allocate the proper context, as in Fig. III.

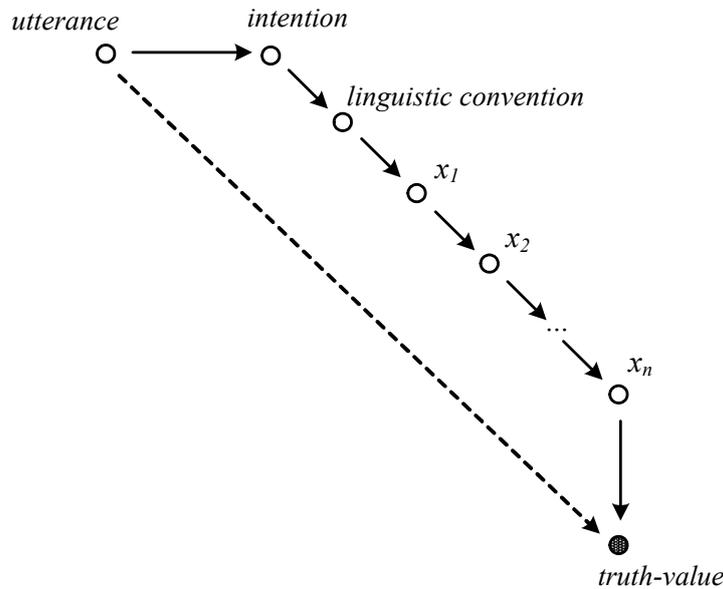


Fig. III

The Jainas traditionally, since around the 5th century CE, distinguished seven such major parameters, or interpretative factors, which they called viewpoints (*naya*). They claimed these would take into account basic conditions necessary in a proper allocation of an utterance to its proper context, namely, 1. comprehensive (*naigama*), 2. collective (*saṅgraha*), 3. empirical (*vyavahāra*), 4. direct (*rju-sūtra*), 5. verbal (*śabda*), 6. etymological (*samabhirūḍha*) and 7. factual (*evaṁ-bhūta*) viewpoints, as in Fig. IV.⁵ This septuplet would not exhaust all possible viewpoints or interpretation strategies, as these could theoretically be infinite, however the seven were considered basic and most frequently applied in daily discourse. Some thinkers (NAV 29.13)

⁵ This theory was probably a joint product of two traditions, Jainism and Ājīvikism, see BALCEROWICZ (forthcoming₁, Chap. ‘14. Ājīvikas, Trairaśikas, Jainas’).

claimed, however, that the model should exhaust all possible conceivable perspectives.

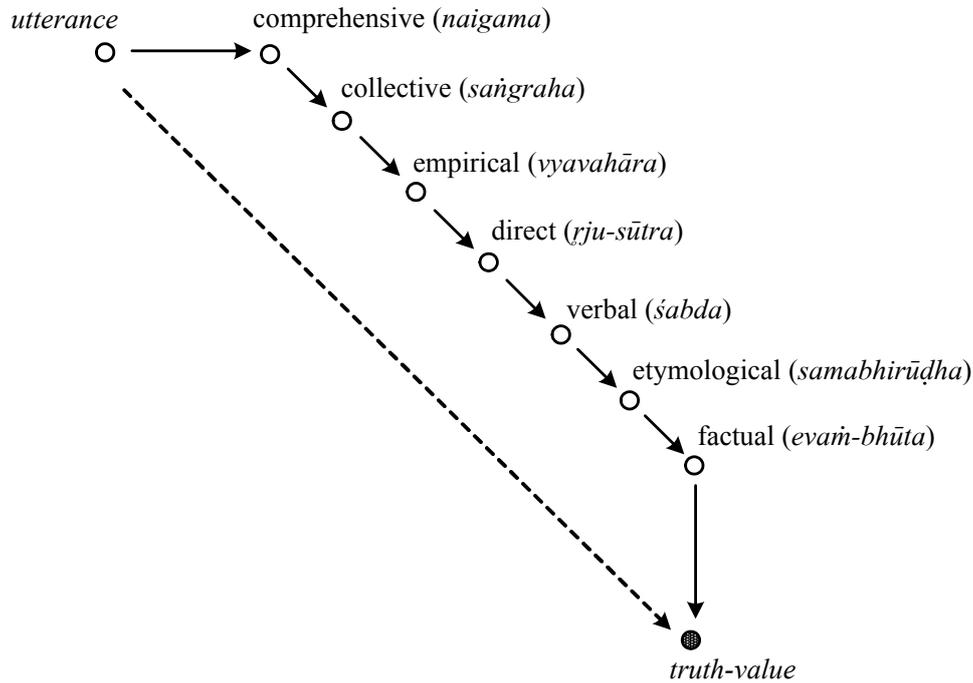


Fig. IV

They would further group these seven viewpoints in two major headings, either substance-expressive (*dravyārthika*) (1–3) and mode-expressive (*pariyāyārthika*) (4–7) viewpoints, or object-bound viewpoints, operating by means of object (*arthadvāreṇa [pravṛtta]*) (1–4) and speech-bound viewpoints, operating by means of speech (*śabda-dvāreṇa [pravṛtta]*) (5–7). This typology was supposed to comprise such aspects as the speaker’s intention (who allocates a particular meaning to the sequence of verbal signs he chooses to convey the idea he has in mind), the universal–particular distinction, temporal aspect and a range of linguistic conventions, synonymy etc.

In this approach, every utterance has to undergo a process of interpretation in which a particular context is assigned in which it holds true, the inapplicable contexts or those in which it is false being excluded. This method was believed to consistently yield one and only one context in which a particular utterance under particular conditions is both applicable and true. What were the actual meanings, or spheres of reference, of these seven viewpoints, one by one?

The first of these, the comprehensive viewpoint (*naigama*), a most general, open-ended interpretation of an utterance, sometimes excluded from classifications, takes into account a possibly extensive, all-inclusive context consisting of a complex of meanings and connotations evoked by the utterance. It is the least interpreted and analysed approach, when it does not even play a role whether we speak of a whole class of things or individuals of the class. In some cases it may indeed be quite irrelevant whether the sentence ‘the honey bee makes honey’ (*madhu-makṣikā madhu karoti*) refers to a class of things (‘the honey bee’ and ‘honey’), a universal, or a particular item of the class, an individual. The speaker, if asked about this ambiguity, would say: ‘Whatever. Does it matter?’, because distinctive features of individuals or

constitutive characteristics representative of a given class are not important at this level of communication. Very often this comprehensive viewpoint coincides with a colloquial, unreflected usage of an unspecified reference, which indiscriminately comprises both the particular and the universal.

The second view point is collective (*saṅgraha*). It cumulatively refers to a whole class of individuals, or to the universal, which constitutes the denotation of a given utterance. In this, it forms a basis for any taxonomy, classification and definition. As one thinker expressed it, ‘The collective viewpoint is the process of synthesis of one facet out of all possible facets of things’ (TBh 1.35, p. 32). From this perspective, ‘the honey bee makes honey’ (*madhu-makṣikā madhu karoti*) takes all the three elements of the utterance—‘the honey bee’, ‘the production’ and ‘honey’—in a general sense and takes the utterance to refer to universals or classes of things. It does not matter which honey bee, which honey and what activity is involved.

The empirical viewpoint (*vyavahāra*), which comes third, refers to a concrete individual selected from a class. It is called ‘empirical’ because we normally do things with concrete things, viz. in most cases, we handle macroscopic objects and, while describing processes and actions, we generally tend to refer to such concrete individual objects which enter our practice (*vyavahāra*). Superficially the same utterance ‘the honey bee makes honey’ (*madhu-makṣikā madhu karoti*) singles out a concrete individual honey bee, selected out of a whole class, and describes what it generally does or is supposed, or expected to do.

The next step in the concretisation of the context is accomplished by means of the direct viewpoint (*ṛju-sūtra*), which narrows the point of reference down to the temporal condition or manifestation of an individual. The point of reference is such that it is concurrent with the instant characterised by the action or by the condition in which the individual thing finds itself in and which is being expressed by the utterance. As a rule, it is the present slice of time continuum through which a referent passes to which the direct viewpoint applies, though points in time other than the present moment are theoretically conceivable. This is the transient, momentary aspect of the thing to which an utterance refers, and in English this would be usually expressed with the present continuous tense, but in other languages which do not have this grammatical form, an ordinary present tense will still be used, as in the Sanskrit sentence *madhu-makṣikā madhu karoti* (‘the honey bee makes honey’ in the sense of ‘this honey bee *is producing* honey’). The corresponding point of reference of this sentence is an event when a particular honey bee is currently engaged in the process of honey making, for instance by regurgitating, or even bringing the pollen and nectar back to the hive, but not any other situation. As the Jainas would express it, the direct viewpoint emphasises one particular, i.e. present, mode (*pariyāya*) of a thing, and the substantial and non-momentary character of the entity is intentionally ignored. Since all the remaining viewpoints, like the direct viewpoint, emphasise a selected mode of an object in action, for this reason, they all are classified as mode-expressive (*pariyāyārthika*), unlike the first three, known as substance-expressive (*dravyārthika*), which disregard modes and primarily relate to the substance and qualities of the thing. In contradistinction to all four above viewpoints denoting an object in action as such, hence occasionally known as object-bound viewpoints (*artha-dvāreṇa*), the remaining three are speech-bound (*śabda-dvāreṇa*), viz. they introduce additional semantic distinctions which no longer relate to the thing itself but to specific linguistic devices employed to describe it.

The first of these speech-bound viewpoints is sometimes (TBh) called present (or accurate) verbal viewpoint (*sāmprata-śabda-naya*). By introducing an additional aspect of linguistic forms of expressing one and the same thing, it limits the scope of application to the present time and highlights the verbal reference, including grammatical distinctions. At this level of communication, it is still irrelevant which verbal means we use, provided they will all be properly understood. Take for instance a few sentences which in certain circumstances will express one and the same phenomenon we are observing: ‘The honey bee is making honey’ (*madhu-makṣikā madhu karoti*),⁶ ‘The *apis* is producing golden ambrosia’, ‘The drone is participating in the honey making’. This viewpoint allows one to use any of these, or similar sentences, to describe an event to the same effect. One intentionally neglects possible differentiation between the shades of meanings and treats them as fully interchangeable. Similarly, we may refer to Venus seen above the horizon with expressions ‘Hesperus is there’ or ‘Phosphorus is shining’. Here, one fully enjoys the freedom to pick any one from a range of expressions to denote one and the same event due to linguistic flexibility, when certain semantic distinctions are consciously overridden, all however within bonds of a prevalent linguistic convention in consonance with which users of the language agree upon a selection of verbal expressions that denote a particular individual, event or phenomenon.

The sixth viewpoint, which further limits the context of an utterance, is called etymological (*samabhirūḍha*), not without a reason. It draws a distinction among seemingly synonymous utterances which is based on the divergent derivation of their elements. The presupposition is that ideal synonymy is non-existent, for even apparently close synonyms possess their distinct shades due to which one is not a full substitute for the other in all contexts and situations. No synonyms can be considered equivalent. Out of the three utterances provided as examples for the verbal viewpoint, ‘The drone is participating in the honey making’ will mean something quite different than ‘The honey bee is making honey’, when we consider that the drones are males, not workers, and instead of gathering pollen and nectar they fly to mate with the queen (which could still be ultimately considered a part of a complex process of the production of honey). In the case of example two, one could argue that not every *apis*, being the genus, is the honey bee, which is just a subset. Further, ‘to produce’, ‘to make’ and ‘to participate’ have quite different meanings, whereas ‘golden ambrosia’ may be, say, maple syrup. Words and expressions evoke different images in mind and can be associated with different situations which make a seeming synonym inapplicable. A synonym may even become a misnomer in particular circumstances. For instance, to say in the evening that ‘Phosphorus is there’ is as mistaken as to claim in the morning that ‘Hesperus is shining’, even though both would refer to one and the same planet Venus. Hence, from this particular viewpoint, the language user has to be quite selective when it comes to choosing an adequate sentence to describe what he has in mind. Out of the possibilities still open at the level of the verbal viewpoint, one has to choose that particular utterance which precisely, i.e. all etymological and grammatical nuances considered, corresponds to what one intends to express. As some Jaina thinkers (SSi 1.33) add, this viewpoint can be quite a useful

⁶ Remember that in many languages, especially in Sanskrit and Prakrits, there is no distinction between the simple present and the present continuous tenses, so *madhu-makṣikā madhu karoti* means both ‘the honey bee makes honey’ and ‘the honey bee is making honey’, so throughout our analysis in this chapter we effectively deal with nominally one and the same sentence seen through seven viewpoints.

tool while dealing with homonyms. We can still use quasi-synonymous phrases but with caution, remembering that they express quite different things.

The seventh and last viewpoint is the factual viewpoint, which has the narrowest sphere of application. It stipulates that we use a particular utterance with awareness of etymological and grammatical nuances but we also apply it to such a context in which the thing finds itself in a condition precisely corresponding to such nuances. The utterance ‘The honey bee is making honey’ can be considered true only when it is pronounced at a particular moment and refers to the situation when the honey bee is actually engaged in the process of regurgitation, but not when it is cleaning the hive, feeding the larvae, ‘dancing’ to exchange information or depositing the collected nectar and pollen in the hive. Similarly, while pointing to the sky in the morning in the direction where Phosphorus, or ‘light-bringing’ star, can normally be seen, we are permitted to say ‘Phosphorus is shining’ provided the planet is actually visible here and now, and is not obscured by clouds. To say that ‘Phosphorus is shining’, in a situation when there are clouds in the sky obscuring Venus, would be still correct at the sixth level, that of the etymological viewpoint. With all last three viewpoints, the default time reference is the present moment, but clearly they could also be applied to the past or future.

As we can see the viewpoints are nested in the sense that the every subsequent viewpoint delineates a class of its referents which is a subclass of the preceding viewpoint. We start with the most comprehensive set of all kinds of elements, indiscriminately including both individuals and classes, or universals, and gradually narrow the description down to an individual at a particular time, usually the present moment, which can be referred to with an utterance that closely, i.e. etymologically and grammatically, corresponds to its current condition.

In fact, we could group all these seven viewpoints under index (i), as in Fig. V, which would then be an appropriate description of this method without any loss of contents and meaning.

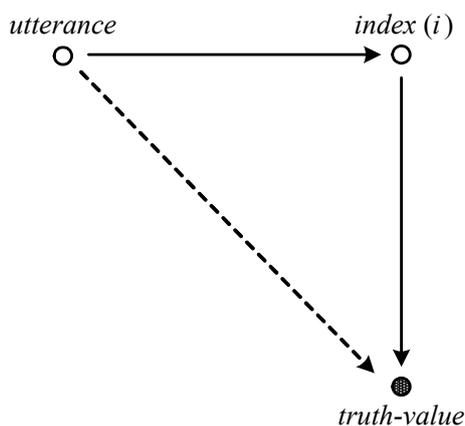


Fig. V

What this theory demonstrates is that no utterance is simply either true or false. Every sequence of phonemes or graphic signs has to be interpreted and the process of interpretation necessarily involves the assignment of the proper context. Only then we can decide whether a sentence is true or false. In other words, since the interpretation of an utterance and assignment of truth value is not a binary function ‘utterance \rightarrow truth value’, in order to determine its truth value, we have to ascribe it to its specific

viewpoint type that supplies the contextual information which is lacking in the utterance as such, inasmuch as it ‘functions with a restriction’. The viewpoints function as such context-indicators, or intermediary parameters which help us assign the correct context and truth value. All of the most important context-indicators are indices, comprised under index i . An utterance will yield truth or falsehood depending on the adequate interpretation of its context which is determined by means of indexation. Without such indexed determination of the context of an utterance (through the set of viewpoint indices), the utterance remains meaningless and its truth value cannot be assigned. As long as we do not know to what situation the utterance ‘The honey bee makes honey’ is supposed to refer and we do not know its referent, its meaning remains indeterminate and not liable to truth/falsehood evaluation. Accordingly, we can have the following simple model of the context-based interpretation \mathcal{J} of the utterances $\alpha, \beta, \gamma \dots$ that belong to a class \mathcal{F} of formulas (possible utterances):

$$\mathcal{J} = \langle D, I, \mathbf{A} \rangle$$

In this model of interpretation \mathcal{J} , D is the domain of admissible interpretations (a class of conceivable situations (phenomena or individuals in action, process, condition, state, etc.) denotable by the utterances $\alpha, \beta, \gamma \dots$); I is a class of indices i , or context-indicators (viewpoints); \mathbf{A} comprises i -indexed classes of actual denotata. In other words, \mathbf{A}_i is a particular class indexed with a given index $i \in I$ (the i -interpreted class), which groups actual situations that correspond to those in circumstances described by index i . The truth value of the i -interpreted utterance α —viz. either $\|\alpha\|_i = 1$ for true or $\|\alpha\|_i = 0$ for false—therefore depends on the actual context represented by the circumstances delimited by elements of the class I (indices) in the interpretation \mathcal{J} . Thus, the truth value of any i -interpreted utterance α depends on the actual context represented by an index i (viewpoint) of the class I in the interpretation \mathcal{J} , and the archetypal index is circumscribed by the following co-ordinates:

$$i = \langle c, a, t, l, e, s \rangle$$

In view of some bovine creatures so revered in India, we may call this *the CATLES model*. In the formula, the variable c designates the general class $C \in D$ of possible denotata of (situations referred to with) utterances $\alpha, \beta, \gamma \dots$. The variable a is an element of the class C (viz. a particular individual of the class C). The variable t is the temporal reference (the point of time is usually the present moment of ‘now’, which steadily progresses on the time axis, so in this sense it can also be treated a set of variables, inasmuch as it is not a constant). The variable l comprises linguistic conventions in accordance with which utterances $\alpha, \beta, \gamma \dots$ are pronounced. The variable e indicates etymology and other grammatical categories in accordance with which one distinguishes between the meanings of apparent synonyms $\alpha, \beta, \gamma \dots$. In other words, e describes an equivalence relation between etymology and grammatical structure of a particular phrase and its meaning, in view of which—for the range of expressions $\alpha, \beta, \gamma \dots$ —we will have three different co-ordinates $e_\alpha, e_\beta, e_\gamma, \dots$. The variable s represent the current status of the individual or event that is the denotatum of $\alpha, \beta, \gamma, \dots$, and the fact that the referent currently manifests the quality by which it

is being referred to by α , β , γ , ..., in accordance with etymological and grammatical requirements. In this hierarchical, nested model every subsequent viewpoint introduces a new indexical co-ordinate, except for the first viewpoint in the case of which the context-defining parameters remain indeterminate:

1. the comprehensive (*naigama*) : $i = \langle \rangle$
2. the collective (*saṅgraha*) : $i = \langle c \rangle$
3. the empirical (*vyavahāra*) : $i = \langle c, a \rangle$
4. the direct (*rju-sūtra*) : $i = \langle c, a, t \rangle$
5. the verbal (*śabda*) : $i = \langle c, a, t, l \rangle$
6. the etymological (*samabhirūḍha*) : $i = \langle c, a, t, l, e \rangle$
7. the factual (*evaṃ-bhūta*) : $i = \langle c, a, t, l, e, s \rangle$

Fig. VI

What the model of viewpoints is certainly not about are different ‘languages of metaphysics’, i.e. different levels of description ordered hierarchically into a layered structure in which every layer describes a slice of reality (e.g. in terms of macroscopic things down to molecular entities and subatomic particles). It is rather about how we determine the relevant context for utterances and thereby assign truth values to them. This theory, however, is not without problems and inconsistencies, one of them being how the three speech-bound viewpoints can consistently be integrated into the whole structure and what their actual role in the communication is. The fact that different thinkers offered sometimes quite divergent interpretations of each viewpoint points to the lack of unanimity among the Jainas but also reveals that specific solutions proposed were found inadequate and unsatisfactory by the Jainas themselves. Nevertheless, a theory which matured around 1200–1400 years ago seems to provide valuable feedback to modern philosophy of language and semantics and makes one aware how much our utterances are context-sensitive.

A thing of many facets

Since, as the theory of viewpoints claims, it allows for only one aspect of a real thing (*vastu*) (or one context in which the thing is seen) to be verbally expressed through an utterance interpreted with the help of it, it is sometimes called an incomplete account (*vikalādeśa*), inasmuch as the utterance is applicable only to a particular object under a particular viewpoint. We could say that, in this theory, an utterance is in search for its context. The Jainas distinguished that incomplete account from what they claimed provided a complete account (*sakalādeśa*) of a really existing thing. It is a method the starting point of which is the thing in itself and an attempt to provide a full description of it through a range of formalised sentences, by way of the search for all possible statements that can be made about the real thing. This is the third disambiguation strategy proposed by the Jainas to convert statements expressed in natural languages, which are by nature ambiguous, into propositions whose meaning is unequivocal. It is called the seven-fold modal description (*syād-vāda*).⁷ This theory provoked the

⁷ It is discussed in much detail in BALCEROWICZ (forthcoming₂).

highest number of objections from other systems which claimed it would violate some basic rules of logic, especially the law of contradiction. The main reason for the criticism, but also for the (misapplied) attribution of many-valued logic to it by modern researchers—was that what Jainas expressed in natural language (and Indians never used symbols for logical analysis) may seem like ascribing contradictory properties (P and non-P) to one and the same substratum. However, as we will see, such criticism was based on misreadings of the theory, and it does provide a valuable insight into how the language works, with all basic logical rules preserved intact. The theory (*vāda*) derives its name from the term *syāt*⁸ which is a sentential functor meaning ‘somehow’, ‘in a certain sense’ or ‘from a certain perspective’, and is explained as a particle ‘expressive of multiplexity of reality’. An alternative name for the theory is *sapta-bhaṅgī*, i.e. ‘a theory of seven (*sapta*-) basic figures (*bhaṅga*)’, or ‘the seven-figured model’.

The theory claims that about each and every entity, phenomenon or event, consisting of a substantial layer (*dravya*), of innumerable properties (*guṇa*) and of infinite modes (*pariyāya*) and entangled in infinite relations with other entities, one can express an infinite number of *true* sentences, which can be formally standardised into seven basic figures due to their structural properties. Every such formal sentence contains at least the following conspicuous elements: (1) a sentential functor *syāt*, which means ‘in a certain sense’, (2) the verbal element ‘is’ or ‘exists’ (*asti*), which is consistently the third person, present indicative, and has a copulative meaning, being a connective with the third element; (3) this third element is a predicate, symbolised here as P, Q, etc., which however is hardly ever expressly mentioned, but is always implied. In addition, some sentences have negation which formally is a sentential negation the way it is grammatically expressed (e.g. ‘x is not P’), but what is meant by the brief style is actually a predicative negation (e.g. ‘x is non-P’). In addition, some of the seven standardised figures contain also an element ‘inexpressible’ (*avaktavya*) which is a kind of complex description (being a conjunction of predicates). All the seven statements, or figures (*bhaṅga*), all of them considered true,⁹ are always represented as follows:

1. ‘In a certain sense, x [indeed] is P’—*syād asty [eva]*¹⁰.
2. ‘In a certain sense, x [indeed] is non-Q’—*syān nāsty [eva]*.
3. ‘In a certain sense, x [indeed] is P and, in a certain sense, [indeed] is non-Q’—*syād asty [eva] syān nāsty [eva]*.
4. ‘In a certain sense, x [indeed] is inexpressible’—*syād avaktavyam [eva]*.

⁸ Formally it is the third person optative of the verbal root ‘to be’ (‘could be, may be’).

⁹ There were numerous attempts to formalise this theory in a way which would assign every figure a distinct truth value, which would ultimately lead to a model of many-valued logic, but such attempts do not accurately depict what the Indian themselves said in their texts. Examples are numerous, e.g. BARLINGAY (1965: 6, 65), MUKERJI (1977: 230–233), MATILAL (1981: 54–56) and (1991: 12–16), PANDEY (1984: 163), BHARUCHA–KAMAT (1984), GOKHALE (1991: 83–84), GANERI (2002), PRIEST (2008), SCHANG (2008a), (2008b) and (2010). Such formalisation attempts were rather projections of modern concepts onto Jaina ideas and resulted from misreading the texts. This Jaina theory leaves no room for many truth values. See: BALCEROWICZ (forthcoming₂: Chapter ‘2. Formalisation attempts and requirements of the *syād-vāda*’).

¹⁰ The particle *eva* in the sense of ‘indeed’ or ‘exclusively’ was introduced around 600 CE in order to restrict the applicability of the property predicated of the real thing, being a semantic method to restrict the range of the term that denotes the property.

5. 'In a certain sense, x [indeed] is P and, in a certain sense, [indeed] is inexpressible'—*syād asty [eva] syād avaktavyam [eva]*.
6. 'In a certain sense, x [indeed] is non-Q and, in a certain sense, [indeed] is inexpressible'—*syān nāsty [eva] syād avaktavyam [eva]*.
7. 'In a certain sense, x [indeed] is P, in a certain sense, [indeed] is non-Q and, in a certain sense [indeed] is inexpressible'—*syād asty [eva] syān nāsty [eva] syād avaktavyam [eva]*.

The Jainas themselves emphasised, first, that the above formalised seven figures do not involve any contradiction, and, second, they understand negation in the classical sense: ' x, y are contradictory iff $x = \neg y$ '. The seven-figured model was meant to disambiguate statements which serve a kind of shorthand for more complex assertions. The phrase of the first figure (*syād asti*) would literally mean ' x , in a certain sense, exists', or ' x , in a certain sense, is', but it is in fact a truncated statement, which should be understood as 'in a certain sense, it (some object under discussion) indeed exists *as ...*', or 'in a certain sense, some object x indeed has a property P'. As we can see, what its critics considered to be contradictory properties attributed to one and the same thing, e.g. P and non-P, was never the case in Jaina theory. What may seem like contradictory properties are always two different properties (e.g. P and non-Q) in the sense that they are predicated of one and the same thing from different perspectives, in different context, time frame etc., distinctions which an unanalysed natural language conceals. The key term was a sentential function which acts as a complex index in which a range of contextual parameters are hidden.

The sentential functor turns an assertion or negation into a modal sentence, in which the indicative mood is transformed into 'perspective' mood. In other words, the functor *syāt* ('in a certain sense') introduces a particular perspective into every sentence, and the perspective is expressive of a particular aspect (*deśa*) or facet (*aṁśa*) of the thing, which we can call 'parameter'. Four such basic parameters that qualify the way we predicate of a thing are traditionally distinguished: substance (*dravya*), place (*kṣetra*), time (*kāla*), condition (*bhāva*), but these could be extended infinitely to incorporate any other perspective, or parameter, from which we can predicate a certain property of a thing or deny it. These perspectives were considered implicit in any statement we make in a natural language: while describing any object, we usually do it from a certain perspective. For instance, when we say that a pot is made of clay, we predicate the property 'made of clay' of a pot from a perspective of its substance, not its mode. To predicate the same property of the pot from the perspective of its mode, i.e. transient occurrence, would mean that the pot could lose its clay as its material substratum and still remain a pot, an utter impossibility (a clay pot without the property of 'being made of clay'!). Thus, the parameters and aspects, contained in the sentential functor, are an integral element of the disambiguation strategy of an apparent assertion or negation, for these are considered to be principally expressed through modal sentences, where modality means perspectivism. Accordingly, ordinary sentences should always be interpreted through the parameters, embedded in the modal functor *syāt*.

In addition, predicates, such as 'black', 'made of clay', etc. are again never straightforward. In fact, they always point to a range of other predicates which are relevant in the case analysed, but are not explicitly verbalised. An explicit predicate P

in the assertoric sentence Px (' x is P ') carries a range of hidden predicates, both positive, such as predicates $R \{A, C, E, G, \dots\}$, and negative, i.e. their hidden implied counterparts $Q \{B, D, F, H, \dots\}$, which are ultimately negated: $\neg Qx$. Let us take an original example¹¹ to see how the predicates work in a seemingly simple sentence 'this pot is made of clay'. The singular predicate, however, implies a range of other predicates, which can be implicitly asserted or denied:

x is A	=	' x is made of clay',
x is $\neg B$	=	' x is not made of water etc.';
x is C	=	' x is related to the city of Pāṭaliputra',
x is $\neg D$	=	' x is not related to the city of Kānyakubja etc.';
x is E	=	' x is existing in autumn',
x is $\neg F$	=	' x is not existing in spring etc.';
x is G	=	' x is something black',
x is $\neg H$	=	' x is not something red etc.'

While predicating its substance of a material object, we also imply that it has a particular colour, occupies particular space and time co-ordinates etc., but we implicitly deny possessing a different substance, different colour different space and time co-ordinates etc. A message may be simple and straightforward, but only superficially, inasmuch potentially it conveys more information which is there to be expressed and decoded through additional modal assertions and denials.

Thus, all negative predicates $\neg Q \{\neg B, \neg D, \neg F, \neg H, \dots\}$ are merely implied by the affirmative predicates $R \{A, C, E, G, \dots\}$ of the sentence 'In a certain sense, x indeed is made of clay', but not expressly stated in the first figure. They come to the fore in the second figure 'this pot is not made of clay', implied by the first figure.

At this stage, we can explain how two orders or parameters are actually introduced into the theory. What we call parameters above, are in fact only first-order parameters, such as substance S , place or occurrence O , time T , condition C , and the list can be extended to include mode, aspect, relation, distinction, material substratum, relation, serviceability, verbal designation etc.

Accordingly, the predicates $R \{A, C, E, G, \dots\}$ and $\neg Q \{\neg B, \neg D, \neg F, \neg H, \dots\}$ are treated as one predicate P indexed with the set of the four basic parameters $\{P^Sx, P^Ox, P^Tx, P^Cx, \dots\}$, for instance as follows:

- 'With respect to substance, x is P ': P^Sx ,
- 'With respect to place, x is P ': P^Ox ,
- 'With respect to time, x is P ': P^Tx ,
- 'With respect to condition, x is P ': P^Cx , etc.

However, this would still be a simplification because we also have second-order parameters, with which first-order parameters are indexed in their turn: $R^Slx, \neg Q^S2x, R^Olx, \neg Q^O2x, R^Tlx, \neg Q^T2x, R^Clx, \neg Q^C2x, \dots$, for instance:

- 'with respect to substance S_1 , x is ...' : R^Slx ,
- 'with respect to substance S_2 , x is not ...' : $\neg Q^S2x$,

¹¹ SVM₁ 23.113–119, p. 143.12–18 = SVM₂, p. 210.7–12.

‘with respect to place O_1 , x is ...’	: R^{O_1x} ,
‘with respect to place O_2 , x is not ...’	: $\neg Q^{O_2x}$,
‘with respect to time T_1 , x is ...’	: R^{T_1x} ,
‘with respect to time T_2 , x is not ...’	: $\neg Q^{T_2x}$,
‘with respect to condition C_1 , x is ...’	: R^{C_1x} ,
‘with respect to condition C_2 , x is not ...’	: $\neg Q^{C_2x}$, etc.

Every sentence is taken to embed a set of hidden parameters that delineate the context, and a simple predicate, say, P of any statement about a real thing x (Px) is in fact a compounded predicate, the proper understanding of which necessitates an analysis with the help of additional parameters. On the basis of the above, we can formulate a general rule:

$$\forall x . \exists \sigma \sigma: P^\pi x ,$$

‘For every thing x , there is a particular perspective σ such that it can be interpreted as parameter π with respect to which x is P ’,

where $\pi = \{S, O, T, C\}$ is the set of the first-order parameters of substance = S , place (occurrence) = O , time = T , and condition = C , and each first-order parameter carries second-order parameters which specify which of two (or more) parameters of one set (say, substance S) is meant (S_1 or S_2).

The third and fourth figure (*bhaṅga*) may jointly present some interpretative problems, for they may either seem contradictory or redundant, though the Jainas would maintain that neither is the case.

The third figure (‘In a certain sense, x [indeed] is P and , in a certain sense, [indeed] is non- Q ’) seems to be a conjunction of figures 1 and 2. However, it is not, the Jainas explain, and the third figure (*bhaṅga*) carries some additional meaning over and above a mere conjunction. It will soon become clear what kind of meaning it is. It is grounded in the claim that every sentence carries two semantic layers: the primary meaning and the secondary (implied) meaning, and these two layers become relevant in figures 3 and 4. To understand how it happens, we will have to deal with these two figures jointly.

But what does it mean, in the first place, to predicate the property of inexplicability (*avaktavyatva*) i.e. impredicability, inassertability or inexpressibility, of a thing, as in the fourth figure? Would it not be a contradiction to express anything about something which is not expressible, including the property ‘inexpressibility’? Clearly not in this case, the Jainas would maintain, because what the fourth figure means is not some kind of absolute inassertability or inexpressibility, but is a description of the fact that it is a virtual impossibility to predicate two *seemingly* contradictory properties of one and the same thing at the same time. Simultaneity should be interpreted as the case when statements predicate two incompatible sets of properties of a numerically one object from exactly the same reference point. Consecutivity automatically changes the points of reference and a contradiction is dissolved. For instance, as we have seen, the list of second-order parameters includes also second-order time-parameters, which are exact temporal reference points that index the basic parameter of time as distinguished from basic parameters of substance, place and

condition, etc. Accordingly, we can both assert and deny particular properties of a given object with reference to time (as distinguished from predication with reference to, e.g., place, substance and condition), but we can apply different points of time.

In addition, figure 4 may be taken to refer to the linguistic incapacity, or human incapability, to express an affirmation of certain properties and the negation of some others in one breath, which is not the case with figure 3.

However, to understand what both figures 3 and 4 express and how they are different, another idea is introduced into the theory, emphasis (*arpaṇa*). In figures which are conjuncts, every predicate carries an emphasised property (*arpita*), sometimes called primary (*mukhya*), but also a not-emphasised property (*anarpita*), known as 'secondary' (*gauṇa*) or subordinate (*upasarjanīta*), which is usually the opposite of the emphasised property.

Accordingly, emphasis is an explicit verbal pronouncement of a property, whereas non-emphasis (*anarpaṇa*) means that a property is not explicitly mentioned in a sentence although it is logically implied or entailed. An illustration sometimes adduced is the relationship in the inference (*anumāna*; e.g. 'sound is impermanent because it is produced') based on the negative concomitance (*vyatireka*; e.g. 'whatever is permanent is not produced'), which is necessarily implied by the formal pronouncement of a positive proof formula based on positive concomitance (*anvaya*; e.g. 'whatever is produced is impermanent'), albeit it is not expressed. Both positive and negative kinds of concomitance are considered logically equivalent, but they may convey different shades of meaning depending on practical, rhetorical or didactic needs.

Figure 4 expresses the simple fact that it is not possible to simultaneously predicate two properties, one positive (P) and one negative (\neg Q), both emphasised as primary, of one and the same thing. Simultaneity should be interpreted as the case when statements predicate two incompatible sets of properties of a numerically one object from exactly the same reference point. Consecutivity automatically changes the reference point and in this way a contradiction is avoided. For instance, as we have seen, the list of second-order parameters includes also second-order time-parameters, which are exact temporal reference points that index a basic parameter of time as distinguished from basic parameters of substance, place and condition. Thus, we can both assert and deny particular properties of a given object with reference to time (as distinguished from predication with reference to, e.g., place, substance and condition), and we can apply different time points.

In other words, two properties cannot be emphasised simultaneously, but only consecutively in two separate sentences. In compounded, complex figures (nos. 3–7), out of two properties P and non-Q, only one (or none) can be emphasised, i.e. explicitly verbalised, whereas the other one is logically implied or entailed. This means that the emphasis applies only when we want to express two properties, but it has no function to perform when only one property is expressed or denied, as in figures 1 and 2.

Following such understanding, two different strategies are suggested to differentiate between the third figure ('In a certain sense, x [indeed] is P and, in a certain sense, [indeed] is non-Q') and the fourth one ('In a certain sense, x [indeed] is inexpressible').

The first interpretation, which is the most prevalent (e.g. Akalaṅka, RVār 4.42; Abhayadeva-sūri, TBV 1.36), rules that both figures can be expressed with 'equal expressive force', viz. either both emphasised or both not emphasised, only

consecutively, and that is the third figure. When one intends to express P and non-Q with ‘equal expressive force’ simultaneously, this is the case of inexpressibility. This is the more traditional way to differentiate between figures 3 and 4: to assume that the third statement (‘in a certain sense, x [indeed] is P and, in a certain sense, [indeed] is non-Q’) *consecutively* expresses two distinct properties, that are not contradictory,¹² because they refer to two different contexts, or they have two different sets of parameters, whereas the fourth statement (‘in a certain sense, x [indeed] is inexpressible’) expresses two distinct parameterised properties, which do not stand in contradiction, but there is no linguistic tool at our disposal to express them *simultaneously*. An example sometimes given (SVM₁ 28.12–13) for the fourth figure (‘inexpressible’) is the case of determining the sex of the foetus in the womb without prior knowledge before birth (‘this is a boy/girl’): one may resort to ‘the third sex’ (*napuṃsaka*), viz. neither male nor female.

According to the second interpretation, in the third figure, one property is emphasised, whereas the other is not. In other words, if both properties, P and Q, are expressed with ‘equal expressive force’ simultaneously, this is the case of inexpressibility (fourth figure), because either both are emphasised or both are not emphasised (RVār 4.42). However, as long as they are expressed with different expressive force, even at the same time, P is expressed and Q is not or *vice versa*, this is the case of the third figure.

Jaina thinkers unanimously emphasise that neither figures 3 and 4 nor any of the last three figures involves contradiction, because no two contradictory predicates (P and non-P) are ever predicated of one and the same substance; one property is asserted in the case of, say, substance, whereas the other one is denied in the case of quality or mode etc. (ĀMī 16, YA 48), viz. it is the ‘P and non-Q’ situation. For instance, to say that ‘in a certain sense, a honey bee is indeed black with respect to its odd stripes and is indeed yellow with respect to its even stripes’ (Figure 3, with both predicates expressed with equal expressive force, but consecutively) involves no less contradiction than to say ‘In a certain sense, a honey bee is indeed *YbEILaLcOkW wWiltThH rReEsSpPeEcCtT tToO iItTsS oEdVdE NsStTrRilpPeEsS*’¹³ (Figure 4, with both predicates expressed with equal expressive force, but simultaneously).

Emphasis, as an integral part of the seven-fold modal description, should be symbolically integrated in the formalised model; let’s take symbol ϵ to represent it, and symbol π for parameter:

$$\forall x . \exists \sigma \sigma : P^{\pi\epsilon}x$$

‘For every real thing x , there is always a particular perspective σ such that it can be interpreted as parameter π with respect to which x is P and the property P is emphasised under condition ϵ ’.

In addition, symbol ϵ_1 will stand for ‘property under emphasis’ (‘emphasised property’) and ϵ_0 for ‘property under no emphasis’ (‘property not emphasised’). To

¹² The criticism commonly wielded against the *syād-vāda* in India, but also the assumption of some modern researchers who impose many-valuedness on the theory, was that it implied the contradiction of ‘P and non-P’ (instead of what should be adequately interpreted as: R and non-Q).

¹³ This is the way I try, imperfectly as it were, to graphically reproduce the simultaneity of expressing two predicates of equal expressive force.

provide an illustration for the third figure with the four basic parameters of substance (S), place or occurrence (O), time (T) and condition (C), the situation may be represented in a more detailed manner as follows:

1. $A^S_1\varepsilon_{1x} \& \neg B^S_2\varepsilon_{0x}$

‘In a certain sense, i.e. with respect to substance S , a given pot x exists as being made of clay’ (A^S_1x) and ‘with respect to substance S , a given pot x does not exist as something made of water’ ($\neg B^S_2x$)

2. $C^O_1\varepsilon_{1x} \& \neg D^O_1\varepsilon_{0x}$

‘In a certain sense, i.e. with respect to place O , a given pot x exists in the city of Pāṭaliputra’ (C^O_1x) and ‘with respect to place O , a given pot x does not exist in the city of Kānyakubja’ ($\neg D^O_2x$)

3. $E^T_1\varepsilon_{1x} \& \neg F^T_2\varepsilon_{0x}$

‘In a certain sense, i.e. with respect to time T , a given pot x exists in the autumn’ (E^T_1x) and ‘with respect to time T , a given pot x does not exist in the spring’ ($\neg F^T_2x$)

4. $G^C_1\varepsilon_{1x} \& \neg H^C_2\varepsilon_{0x}$

‘In a certain sense, i.e. with respect to condition C , a given pot x exists as something black’ (G^C_1x) and ‘with respect to condition C , a given pot x does not exist as something red’ ($\neg H^C_2x$)

The remaining figures 5–7 in the Jaina model will be permutations of the three basic ones: 1, 2 and 4. As we can see, things have become quite complex at this stage. I will refrain here from providing two possible attempts of formalisation with detailed description, and will restrict myself just to a brief exposition of one such formalisation:¹⁴

1. $P\pi_1\varepsilon_{1x}$

‘In a certain sense, x [indeed] is P’

2. $\neg P\pi_2\varepsilon_{1x}$

‘In a certain sense, x [indeed] is non-Q’

3. $P\pi_1\varepsilon_{0x} \& \neg P\pi_2\varepsilon_{0x}$

‘In a certain sense, x [indeed] is P and , in a certain sense, [indeed] is non-Q’

4. $P\pi_1\varepsilon_{1x} \& \neg P\pi_2\varepsilon_{1x}$

‘In a certain sense, x [indeed] is inexpressible’

5. $P\pi_1\varepsilon_{1x} \& P\pi_1\varepsilon_{0x} \& \neg P\pi_2\varepsilon_{0x}$

‘In a certain sense, x [indeed] is P and , in a certain sense, [indeed] is inexpressible’

¹⁴ For the details, see BALCEROWICZ (forthcoming₂).

$$6. \quad \neg P\pi_2\varepsilon_1x \ \& \ P\pi_1\varepsilon_0x \ \& \ \neg P\pi_2\varepsilon_0x$$

‘In a certain sense, x [indeed] is non-Q and , in a certain sense, [indeed] is inexpressible’

$$7. \quad P\pi_1\varepsilon_1x \ \& \ \neg P\pi_2\varepsilon_1x \ \& \ P\pi_1\varepsilon_0x \ \& \ \neg P\pi_2\varepsilon_0x$$

‘In a certain sense, x [indeed] is P, in a certain sense, [indeed] is non-Q and , in a certain sense, [indeed] is inexpressible’

How to read this? P is a predicate variable which comprises a range of positive predicates R {A, C, E, G, ...} and a range of negative predicates Q {B, D, F, H, ...} (denied of the object); π is a set of the first-order parameters {S, O, T, C} of substance, place (occurrence), time and condition etc. (can be extended indefinitely) which determine the parameter with respect to which predicate P is considered; ε is emphasis which indicates that a given property is either expressed (ε_1) or suppressed (ε_0). For instance, $P\pi_1\varepsilon_1x$ states that an assertion ‘object x is P’ is to be explicated through a certain first-order parameter π (π_1), e.g. ‘in view of its substance, a jar is made of clay’, and such property is verbally emphasised (ε_1), i.e. the predicate is expressly stated in language. In the case of the second figure $\neg P\pi_2\varepsilon_1x$, the proposition ‘the same object x is non-P’ means that the predicate should be understood with respect to some other first-order parameter π (π_2), e.g. ‘in view of its substance, a jar is not made of water’, and likewise it is verbally emphasised (ε_1).

The above does not aspire to be the ultimate formalisation of the seven-fold modal description (*syād-vāda*), but it shows the way it can be done. The Jainas themselves were often not quite unanimous as to how to interpret certain figures, which means one would have to provide a formalised model for specific interpretations offered by certain Jaina thinkers separately. Such formalisations as the one above will probably reveal minor problems with this theory, such as redundancies etc. Despite certain deficiencies, what this model—all done by Jaina philosophers in natural language without any recourse to symbols—shows is how many different *true* statements can be made about one and the same object, event, phenomenon or situation without running into a contradiction.

Conclusion

The theory of modal description as well as the two ones previously described, the theory of the four standpoints and the theory of viewpoints, highlight an extremely important element of communication and thought, which has usually been neglected by philosophers in the past: our communication is necessarily limited and the users of language supply the missing information from the context in order to complete ‘shorthands’ which we are bound to use. One of the prime tasks of the philosopher is to propose adequate tools that should disambiguate the language and develop them to fit the requirements of efficient communication and description. The principle that language, communication and description is by nature ambiguous stipulates that suitable procedures of reasoning should likewise be developed which would seriously take into account the context-dependency of every term, expression, proposition and

description. And this is what pragmatic logicians do now, several centuries after this kind of semantics started.

Abbreviations and Bibliography

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