IS 'INEXPLICABILITY OTHERWISE' (ANYATHÂNUPAPATTI) OTHERWISE INEXPLICABLE?

In the 8th century we can observe a sudden change in the Jaina epistemology. This was brought about by the introduction of a new model of inference (anumāna), based on a new interpretation of the logical reason (hetu). The logical reason has been from now on defined as 'inexplicability otherwise' (anyathânupapatti, anyathânupapannatva), and its sole feature is its inseparable connection (avinābhāva) with the inferable property (sādhya), which is known though suppositional knowledge (tarka, ūha). This triple innovation is found in Siddhasena Mahāmati's Nyāyâvatāra¹, Akalanka's Laghīyas-traya², Vidyānanda's Yukty-anuśāsana-ṭīkā¹ and in Mānikyanandin's Parīksâmukha-sūtra⁴, just to mention but a few.

1. Pātrasvāmin, the innovator?

The way (i.e. with the word *iritam*) Siddhasena Mahāmati in his *Nyāyāvatāra* (which would seem at first to be the original source) refers to the idea of *anyathānupapatti* indicates that he was not the innovator (NA 22ab: *anyathānupapannatvam hetor lakṣaṇam īritam*/). These innovations apparently go back to a certain Pātrasvāmin⁵, as it is attested by Śāntarakṣita, who mentions a Pātrasvāmin as the source of the idea, see TSa (1).1364 (p. 405.1): *anyathēty-ādinā pātrasvāmimatam āśaṅkate...* This is further attested also by Jaina sources, in particular by Vādideva-sūri⁶. Apparently the treatise in question is the lost *Tri-lakṣaṇa-kadarthand*⁷, conceived to refute the Buddhist idea of *tri-lakṣaṇa-kadarthand*⁷, and apparently the only available fragments of the work are to be found in *Tattva-saṅgraha* 1364–1379 (pp. 405–407).

- '[1364] If "inexplicability otherwise" is there, then [the logical reason] is seen to be the correct logical reason; if it is not present, then also the triple [logical reason] is not [the correct logical reason]. Therefore, the three characteristics [of the logical reason] are impotent.
- [1365] What possesses "inexplicability otherwise" is accepted as [the correct] logical reason. This [correct logical reason] is something possessed of one characteristic [only], not [something] possessed of four characteristics or of any other [number].
- [1367] The relation of inseparable connection is not at all [present] in the tree forms of [the logical reason]; [the relation] is observed exclusively in

Journal of Indian Philosophy 31: 343–380, 2003. ©2003 Kluwer Academic Publishers. Printed in the Netherlands.

- logical reasons that possess [only] one constitutive element [in the form] of "impossibility otherwise" (= "inexplicability otherwise").
- [1368] Only that which possesses "inexplicability otherwise" is the [proper] logical reason. [It does not matter if] both types of the example can be [cited] or not, because [the example] is not any basis [for inference].
- [1369] Where there is no "inexplicability otherwise", what is the need of the triplet [of characteristics the logical reason]? Where there is "inexplicability otherwise", what is the need of the triplet [of characteristics the logical reason?
- [1371] As regards this, the logical reason which is possessed of one characteristic is free from two types of the example: [somehow] existence and non-existence consist in being (are real in a qualified sense), because they are somehow comprehended. ...
- [1379] Therefore let first of all the logical reason be for us that which leads to the comprehension; but what is the use [of other pointless conditions of the logical reason] falsely conceived [by others], such as the presence of a property in the locus, etc.?!'

A number of examples of valid inference, offered by Pātrasvāmin, are meant to demonstrate that we can infer correctly, even though none or some of the trairupya-conditions are not fulfilled:

- 1) only the condition of paksa-dharmatā (inherence of a property in the locus) is satisfied, but there are no positive (anvaya) and negative (vyatireka) instantiations of the logical reason in the form of sādharmya-dṛṣṭānta or vaidharmya-dṛṣṭānta respectively (TSa 1371):
- 2) no example based on similarity (sādharmya-drsṭānta) can be cited (TSa 1372-4, 1377):
- 3) no example based on dissimilarity (vaidharmya-dṛṣṭānta) can be cited (TSa 1375-6):
- 4) the condition of paksa-dharmatā is not fulfilled (TSa 1378).

Moreover, according to Pātrasvāmin the inference can be invalid, even though it fulfils the three conditions of valid logical reason (trairūpya), which is exemplified by the case of the fallacious proof: 'x is dark-complexioned, because x is the son of y, like the other [sons] of y' (TSa 1371ab: sa śyāmas tasva putratvād drstāh śyāmā yathêtare)11.12

It is not important whether these verses are exact quotations or not. What is decisive is that at least the ideas the verses quoted in TSa express are (1) authentic and (2) ascribed to a particular representative of Jaina tradition prior to Śāntarakṣita and Kamalaśīla.

On the other hand, even though Śāntarakṣita and Kamalaśīla do not always offer quotations in the form we know them from extant text editions, 13 their account is as a rule quite faithful to the original ideas. That Śāntaraksita's account seems authentic—at least when it comes to the essence, not necessarily to the wording-is corroborated by at least three factors:

- 1) At least one of the verses (TSa 1369) is quoted in other works as
- 2) Kamalasīla in his Panjikā on TSa 1369 explicitly mentions that Santarakşita interchanged the padas ab with cd (p. 406.7: anyathânupapannatvam yatrêty asyânantaram nânyathânupapannêty asvardhasya pāthah kartavyah);
- 3) Furthermore, the ideas ascribed by Santaraksita and Kamalasīla to Pātrasvāmin are in complete agreement with Jaina accounts that directly follow Pātrasvāmin (e.g. NA, LT, YAT, for details see below) as well as with later elucidations pertaining to the issue of anvathânupapatti and trairūpva.

Even if Śāntarakṣita and Kamalaśīla alter slightly the wording, their account seems very reliable. Methodologically, in my examination I shall never refer to Pātrasvāmin's account in TSa alone. Instead Pātrasvāmin's ideas found in TSa will always be additionally supported by 'authenticated' Jaina sources.

Some features in Patrasvamin's model of logic in the above account, based on 'inexplicability otherwise', deserve special emphasis:

- 1) There is no need for any additional characteristic of the logical reason other than anyathanupapatti.
- 2) No additional instantiation (drstanta) is necessary to have valid inference (TSa 1368);
- 3) The definition of 'inexplicability otherwise' as impossibility in any other way: anyathânupapatti = anyathâsambhāva (TSa 1367c);
- 4) The correlation of the notion of 'inexplicability otherwise' (anyathânupapatti) with the relation of the inseparable connection (avinabhava) (TSa 1367), which is the inseparable connection of the logical reason with the inferable property (sādhyâvinâbhāva).

I do not intend to evaluate the idea of 'inexplicability otherwise' and its logical rigidity or to demonstrate how far it was accurate or inaccurate, or logically sound or not. My intention is to show how this concept developed and what motives prompted Patrasvamin and other Jaina logicians to introduce it.

2. Anyathânupapatti

Let us first analyse some other earliest Jaina accounts of the notion of anyathânupapatti.

A series of the *kārikā*s of the *Nyāyâvatāra* (c. 620–800) are in agreement with other accounts:

'(5) Inference is regarded traditionally to determine the probandum on account of the inferential sign, which is inseparably connected with the probandum. ... (13) Such an utterance that demonstrates the logical reason as inseparably connected with the probandum is the inference for others, whose essence are propositions, like the thesis, etc. ... (22) The definition of the logical reason has been proclaimed [to be] inexplicability otherwise ... ,16

Akalanka (8th century) in his Laghīvas-trava characterises the basis for inference as follows:

'Inference is the comprehension of the sign-possessor through the inferential sign, which has [as its] the sole characteristic the determined cognition of [its] inseparable connection with the inferable property. Its result is "the faculty of avoidance etc." 17,18

And he adds in his auto-commentary:

'For it is impossible to know the relation of essential identity and relation of causality without the suppositional knowledge of "inexplicability otherwise"; [and] because [the logical reason is also operative] precisely without these two [relations of essential identity and of causality], this is the proof that [the logical reason] has a sole characteristic. For a tree etc. [from which we infer its shadow] is neither the essential nature nor the effect of the shadow etc. 20

Vidyānanda (c. 850) also avails himself of the idea of anyathânupapatti in his Yukty-anuśāsana-tīkā, while commenting on Samantabhadra's Yuktv-anuśāsana²¹:

'And accordingly, what [Samantabhadra] revealed [in the verse] amounts to the following: the persuasion [based on] logical reasoning (sc. anumana) is the description (sc. comprehension) of the object tobe-inferred on the basis of the logical reason the characteristic of which is the determination of the invariant rule "inexplicability otherwise". [This is so] because what is not contradicted by what is perceived or by testimony [would] otherwise [be] inexplicable. The above has been determined adequately enough²² in holy scriptures etc. ²³

All the above accounts of Pātrasvāmin, Akalanka, Siddhasena Mahāmati and Vidyānanda are unanimous as regards at least two crucial point points:

- 1) The correct logical reason has only one defining characteristic (laksana), which is a single notion of 'inexplicability otherwise' (anyathânupapatti) (TSa 1364d, TSa 1365c, TSa 1379, LTV 2.12, NA 22ab):
- 2) The logical reason (heta) in based on the relation of the inseparable connection (avinabhava) (TSa 1367, NA 5a, NA 13a, LT 2.11c,

- TŚVA p. 203²⁴), which is the inseparable connection of the logical reason with the inferable property (sadhyavinabhava).
- 3) Occasionally we also find the idea that valid inference requires no instantiation (drstanta) (TSa 1368, NA 20²⁵ and LT 2.16, however absent, or at least not stated explicitly, in YAT).

Since Pātrasvāmin, Akalanka, Siddhasena Mahāmati and Vidyānanda avail themselves of well-established terms familiar from other systems, the Jaina idea of inference must clearly have been conceived after the triple condition of validity of the logical reason (hetu) and the notion of inseparable connection (avinabhava) had been formulated by Dinnaga. Furthermore, they could not have failed to know the Mīmāmsaka usage of anyathânupapatti.

The term anyathânupapatti is by no means a Jaina invention, and it is generally associated with presumption (arthapatti), the fifth cognitive criterion (pramāna), accepted by the Mīmāmsaka. Locus classicus for the idea is Sabara's commentary:

'Also presumption [is a cognitive criterion (pramāna); it is] an assumption of [another] object [in the form]: "an object either seen or heard is not explicable otherwise." For instance, as regards Devadatta, who is alive, the assumption of [his] being outside, which is unseen, on the basis of seeing his absence at home."

Kumārila specifies:

'A case [of reasoning] in which an object, which [is already] known through [any of] the six cognitive criteria, could not occur otherwise, [and on the basis of it] another unseen [object] is assumed, is called presumption. 27

The similarity between the Mīmāmsaka notion of presumption and Jaina notion of 'inexplicability otherwise' is not only superficial, based on the occurrence of the same expression anyathânupapatti. There are some deeper similarities.

According to the Mīmāmsaka, in arthâpatti we presume either some other object (Sabara: artha-kalpanā) or something unseen (Kumārila: adrstam kalpaved anvam) on the basis of something grasped directly (by perception—Sabara: drstah) or indirectly (by testimony—Sabara: śrutah), or on the basis of any valid piece of knowledge we have (Kumārila: pramāṇa-satka-vijñāto 'rhafi), because we could not otherwise explain the situation we are confronted with.

In the section on *anumana*. Akalanka says²⁸:

'[Even] common people [not to mention the experts!] comprehend the absence of invisible [events, grasp the existence of] consciousness of

other people etc.²⁹ either through their form (sc. on the basis of symptoms that accompany such events) or through their dissimilarity (sc. contrary symptoms), because [these events are] otherwise inexplicable.'30

In Nyāya-kumuda-candra, Prabhācandra explains that even ordinary people infer things which they do not perceive directly, such as imperceptible things, consciousness of other people, both other people's mental disorders (lit. 'possession by ghosts', bhūta-graha) and physical diseases on the basis of something directly perceived, i.e. from symptoms sensed directly such as fever etc., the presence of which is not explicable without assuming those unseen events.³¹

This idea is also expressed by Siddharsigani. According to him we can infer whether a creature is alive or dead-i.e. we are able to conclude that the material body of a creature is inhabited by the soul. jiva, that is imperceptible, or not—³² on the basis of external symptoms:

'... It is an empirical fact that [a person can be] known [to be] alive or dead-even though there is no (lit., 'there might be the harm of') perception that [could] grasp directly the living element (sc. soul)—due to presence or absence, [respectively,] of [such] characteristic marks of the living element [like] breathing-in and breathing-out, etc.; these characteristic marks are concluded with [the help of the relation of] inexplicability otherwise in all cases. Otherwise [that would lead to] the undesired consequence that no everyday practice [could] take place among people³³, 34

Another similarity between the Mīmāmsaka and the Jaina accounts is that the basis for inferring something beyond our perceptive reach is something else grasped either through perception or through testimony.35

Presuming something unseen or unspoken on the basis of something seen or heard is certainly not the sole invention of the Mīmāmsaka, for we find it in the Nyāya tradition³⁶ as well, but also much earlier in Kautilīva-artha-śāstra.

'Something unspoken which is arrived at through the meaning (or, rather more general: due to circumstances), that is presumption.

That is why this feature, viz. acquiring knowledge of something beyond our senses on the basis of any valid piece of available evidence, does not prove that there is any direct link between the Jainas and the Mīmāmsā. In fact, presumptive model seems to be quite a natural element of our reasoning, naturally embedded in our language and argumentation.³⁸

However, the fact that the Mīmāmsaka and Jaina use of the term anyathânupapatti is not coincidental is confirmed by a series of similar examples of reasoning which we find both in MSV, either as untypical (i.e. lacking paksa-dharmatā, sapaksa or vipaksa) cases of inference (anumāna) or as instances of presumption (arthâpatti), and in Jaina sources, as instances of inference (anumana) based on 'inexplicability otherwise' (anyathânupapatti):

- 1) From the rise of the constellation of Krttika we infer the rise of another constellation: MŚV 5.4 (Anumāna-pariccheda) 13ab (p. 249): krttikôdavam ālaksva rohiny-āsatti-klptivat (an instace of inference concerning individual cases, see n. 74), LT 2.14 (p. 459): bhavişyat pratipadyeta sakatam krttiôdayāt, NAV 5.2: krttikôdayāc chakatôdayam.
- 2) On the basis of linguistic convention that stipulates that any word that is synonymous to 'candra', e.g. 'the natural satellite of the carth', refers to the moon, one infers that the moon is spoken of, or else one knows that, say, 'the natural satellite of the earth' is not something which is different from the moon: MSV 5.4 (anumānapariccheda) 64cd-65ab (p. 261); candra-sabdâbhidheyatvam sasino vo nisedhati|| sa sarva-loka-siddhena candra-iñānena bādhvate|. and TSa 1372 ('Pātrasvāmin's section'): candratvenapadistatvān nâcandrah śaśa-lãñchanah | .
- 3) When we determine that a particular person is in a particular place on the basis of one of his aspects (e.g. voice), we infer that he is nowhere else: MŚV 5.7 (arthâpatti-pariccheda) 46 (p. 327): puruşasya tu kārtsnyena yad ekatrôpalambhanam | tasyânyathā na siddhih syād ity anyesv asya nāstitā // — But if there is perception of a man as a whole in one particular place, it is proved that he cannot be otherwise; hence [we infer] his absence in other [places],' as well as MSV 5.4 (anumāna-pariccheda) 66cd-67ab (p. 261), TSa 1377: tvadīyo vā pitātrāsti vesmanīti avagamyate bhāvatka-pitr-sabdasya śravanād iha sadātmani.
- 4) Such things as words or lamps, etc., have communicative or revealing power (iñāpaka, abhidhāvaka): MSV 5.4 (anumānapariccheda) 67d (p. 261): śabde cânabhidhāyake //, TSa 1378 ('Pātrasvāmin's section'): anyathānupapattyaiva sabda-dīpādivastusu ... drstā iñāpakatā.

The above list does not exhaust all instances of reasoning considered in Jaina sources to be valid despite the fact that they do not satisfy one or all validity conditions of the logical reason, i.e. they lack either paksadharmatā, sapaksa or vipaksa, or all. The list can easily be extended:

- 1) 'From [the reflection of] the moon in the water [we infer] the moon in the sky' (NAV 5.2: jala-candrān nabhaś-candram, LT 2.13cd, p. 450);
- 2) 'From one blossoming mango-tree [in the proper season we infer] that all mango-trees are blossoming' (NAV 5.2: puspitâika-cūtāt puspitásesa-cūtān, cf n. 12 above);

- 3) 'From the rise of the moon, [we infer] the opening of clusters of kumuda white water lilies' (NAV 5.2: candrôdayāt kumudâkaraprabodham, cf. n. 12 above);
- 4) 'From a tree [we infer its] shadow' (NAV 5.2: vrksāc chāvām. LTV 2.11cd-12ab; cf. n. 12 above);
- 5) '[Somehow] existence and non-existence consist in being (sc. they both are real in a qualified sense), because they are somehow comprehended' (TSa 1371):
- 6) We infer that our skin has got in contact with an insect or a mosquito on the basis of a sensation, the bite (TSa 1373: pata-kīṭa-kṛtêyam me vedanā):
- 7) From the perception of a visible thing as an effect of the operation of seeing which takes place in the eye, we infer that the eye possesses the exclusive capacity to perceive (TSa 1374: cakṣū rūpa-grahe kārve sadātisaya-sāktimat | tasmin vyāpāryamāṇatvāt yadi vā tasya darśanāt //);
- 8) Since perceptible and imperceptible objects such as a pot or the soul are sometimes invisible, such as a non-existent donkey's horn, one can argue that in a way they are likewise non-existent (TSa 1375: kathañcid asad-ātmāno yadi vâtma-ghaṭâdayaḥ | kathañcin nôpalabhyatvāt khara-sambandhi-srngavat ||);
- 9) Since non-existent objects, such as a hare's horn, can be somehow comprehended (e.g. we can formulate their idea or they can be expressed in language), like the soul or a pot, one can argue that they are also in a way existent (TSa 1376: kathañcana sad-ātmānaḥ śaśaśrngâdayo 'pi ca | kathañcid upalabhyatvād yathâvâtmaghatâdayah /);
- 10) The sun will rise tomorrow (LT 2 14cd).

We also have a case of a reasoning which is invalid despite the fact that it satisfies the trairūpya, which is not found in the early Mīmāmsā literature, viz. TSa 1371ab³⁹.

Interestingly, Kumārila himself emphasizes that all the implied instances of genuine anumana mentioned in MSV 5.4 (anumanapariccheda) 66-68 (p. 261) are valid because of presumption (arthâpatti), that rests on the principle of 'inexplicability otherwise' (anyathânupapatti): bādhas tatrârthâpattito bhavet. Furthermore, the inferences implied by Kumārila in MSV 5.4.66-68 are meant to refute invalid cases of reasoning expressed in the verses, for instance: the reasoning 'Caitra is not outside, because he is not in the house' (MŚV 5.4.66cd-67ab); 'fire does not burn' (MŚV 5.4.67c)⁴⁰; 'the word has no denotative capacity' (MŚV 5.4.67d); 'non-existence of the hearing faculty' (MŚV 5.4.68a); 'the [verbal] proof of impermanence of words' (MŚV.5.4.68b). Moreover, to close the chapter on presumption (arthâpatti-pariccheda), after having offered a few examples of arthâpatti, Kumārila explicitly links the notion of presumption to that of inference:

'[In all above mentioned instances] there is no observation of [any inferential] relation whatsoever. Hence all these and other [cases] would be unsound, if this [presumption] were not different from inference. If [presumption] having such a nature would assume the name of inference, we do not mind, if [you] wish.'41

We can easily see that the Jaina exposition of anumana resembles to a certain degree the Mīmāmsaka notion of arthâpatti. The similarities of expression and structure of arguments make it highly plausible that the Mīmāmsaka paved the way for the development of the Jaina innovation.

Now, how should we precisely understand the (Jaina) expression anyathânupapatti? One of numerous replies is found in NKC p. 449.10-12 ad LT 2.12:

sādhyâbhāva-prakāreņa anyathā yā anupapattih aghatanā sādhanasya tasyāḥ sambandhī grāhakatvena tarkaḥ ...-

- 'By assuming the absence of the inferable property, i.e. "otherwise"; such inexplicability, i.e. inconceivability, ⁴² of the logical reason; related to this [inexplicability]—as that which grasps [inexplicability]—is suppositional knowledge...'

And this brings in another important element entailed by the concept of 'inexplicability otherwise', viz. the suppositional knowledge (tarka, see § 4, p. 354 ff.).

3. Sādhvâvinâbhāva

Like many others, the Jainas were convinced that not all knowledge they had could be derived either through experience (pratyaksa) or through extrapolation from individual experience (anumāna). Moreover, they must have been aware that much of their scriptural knowledge (agama) could be censured as a matter of ungrounded belief by non-believers. That is why Jaina thinkers already at an earliest stage attempted to combine inference (anumāna) with testimony (āgama) into a category of indirect perception (paroksa), which found also its ethical dimension in combining knowledge, conation and conduct.⁴³ This was probably the same fear that we find with Bhartrhari⁴⁴ and others contemptuous of reasoning and reasoners⁴⁵. The fear was also that things vary due to their various conditions, place and time, and accordingly everything by nature would be susceptible to relativism, if we were to rely on pure reasoning.⁴⁶ Furthermore, it would be

impossible to reach agreement on interpersonal level, or even subjective certainty, if we were to rely on our reason alone. 47 Also the suppositional knowledge (tarka, vitarka, ūha), which warrants the reliability of inference, could be censured by opponents as ungrounded belief: '[The claim] that "the cognition of the inseparable connection is based on the presumptive knowledge" is also a mere belief. '48

What was necessary was an invariant rule that would guarantee reliability and certainty of inferences. The Buddhist theory of inference based on three conditions of validity (trairūpya) and on two relations of essential identity (tādātmya) and of causality (tad-utpatti) as the basis for the logical reason⁴⁹ proved insufficient for two reasons. It suffered from the fault of over-extension (ativvāpti), because it also embraced such cases that did satisfy all the trairupva conditions but were fallacious (alakṣya-vṛtti),50 as well as from the fault of under-extension (avyāpti), because it did not comprise all valid cases but only some (lakṣyaikadeśavrtti).51 The query was also how one can infer from individual cases (the problem of induction) or about individual cases (kevala-vyatirekin cases), which are uninstantiated except for the subject of inference. 52 This also entailed the problem of universally present properties (kevalânvayin), much debated in Navya-nyāya, and the problem of inferences that do not satisfy the first condition of the property present in the locus of inference (pakṣa-dharmatā), e.g. the case of the constellations of Krttika and Sakata | Rohini. 53

The Mīmāmsaka solution was not satisfactory, in as much as it took recourse, beside the vyāpti relation, to the presence of the property in the locus of inference (paksa-dharmata)54, which the Jainas considered faulty⁵⁵.

The Jainas took the Buddhist relation of avinabhava instead 56:

hetu is necessarily related to (does not deviate from) sādhva, or: sādhya-avinā hetu-abhāva.

In other words:

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'x extrapolates y, in case there is no x without y, 57 or:
v-avinā x-ahhāva 58
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However, they remodelled it, so that it required no additional positive (anvaya) or negative (vyatireka) instantiations. For Dinnaga this was 'a "no counter-example" relation" on this context, Prabhacandra refers to an interesting objection:

'This'expression of the inseparable connection states that if there is no occurrence of inferable property, there is no occurrence of logical reason: therefore this is merely an expression of the negative concomitance, but not an expression of the relation.'6

Prabhācandra's reply runs as follows:

"... The expression of the inseparable connection is not restricted only to the negative concomitance, because of the undesired consequence that—even if there was no pot etc.—this [relation would still be] operative. But it is an expression of the relation. And this relation is determined through two modes: [either] by explicability in this way or inexplicability otherwise. Hence both these [modes] are expressed through the expression of the inseparable connection: "wherever there is smoke, there is fire: where there is no fire, there is no smoke either." Now [this can be objected as follows:] "How can it be known that «where there is no fire, there is no smoke either»? Since smoke is invariantly not cognised when there is no fire, then only if this [fire] is present, that [smoke] can be there. Otherwise just like even though smoke is not present, in some cases fire is perceived, in the same way if the fire is not present, smoke would be perceived in some cases. If x is not inexplicable without y, then x is not invariantly related to y, just like even if smoke is not present, fire is perceived [because] it is not invariantly related to smoke; but smoke is inexplicable without fire; therefore this [smoke] is invariantly related to fire.'62

Even though this quotation is of later origin, its contents is very similar to, for instance, NAV 17.1⁶³ and NAV 18.1, as well as to Parīksâmukha-sūtra⁶⁴, and the detailed expressions of Prabhācandra can easily be derived from such statements which we find in NA 17⁶⁵. We find another explanation of the avinabhava-rule in NKC:

'x occurs only when v is there, hence it does occur otherwise [i.e. if there is no ν , x does not occur]. '66

Conspicuously, the functioning of the relation of avinabhava is here directly linked to the idea of anyathânupapatti.

Historically speaking, there still can be some doubt what different authors considered to be vvāpti?⁶⁷ Was it avinābhāva or anyathânupapatti? Certainly, in most cases I have examined vyāpti is considered to be avinabhava. NA 22ab is clear enough that anvathânupapannatva is hetor laksanam, and similarly, Pātrasvāmin (TSa 1364-5) takes anyathânupapannatva to replace tri-lakṣaṇāḥ, hence the vyāpti for them is avinābhāva. Akalanka himself (LT 2.12cd) as well as his tradition follows the same line⁶⁸. The only exception seems to be Vidyananda. The expression niyama is generally taken to mean vyāpti, especially in the Mīmāmsā tradition⁶⁹, but also among the Jainas 70 or Buddhists 71, and therefore Vidyananda's usage (YAT ad

YA 49, p. 122.20-123.2: tathā cânyathânupapannatva-nivamaniścaya-laksanāt sādhanāt—'the logical reason the characteristic of which is the determination of the invariant rule "inexplicability otherwise"; see n. 23) implies that he apparently equates vyāpti with anyathânupapannatva. The interpretation depends on how we construe the compound anyathânupapannatva-niyama, which I would naturally construe as a karma-dhāraya (anyathânupapannatvam niyamah). Only if we took the compound to be a tat-purusa (anyathanupapannatvāt niyamah), we could infer that Vidyananda was no exception.

A question arises whether what the principle of 'inexplicability otherwise' amounts to is our inability to offer any other explanation of a particular event apart from the one to which we find no other alternative? In other words, does anyathânupapatti express that out of a range of possible explanations of a particular event we chose the one which still remains unfalsified after we have eliminated all other rival answers that have proved unsatisfactory? That would be tantamount to saying that by anyathânupapatti we choose the solution which we are only able to conceive of, but this solution does not have to be the correct one: we may simply not know the proper answer, and the answer we favour has so far not been falsified. The implication would be that the rule of 'inexplicability otherwise' merely points to most likely answers and expresses probability, but warrants no certainty. This is precisely what would seem the case to be at this stage of analysis. To overcome the problem of mere likelihood, the Jaina logicians had to combine it with an invariant relation, viz. that of avinabhava, that aimed at revealing not only the most probable but also the only legitimate explanation, thus securing the veracity of our cognitions.

4. Tarka

The Jainas had now the new logical reason (hetu). Its sole defining characteristic (laksana) was 'inexplicablity otherwise' (anyathânupapatti), which replaced the three characteristics of the hetu. The invariable concomitance (vyāpti), or the invariant rule (niyama, sambandha) which relates the inferable property (sādhya) and the logical reason (sādhana), assumed, in its turn, the role of inseparable connection (avinabhava), and thus it replaced the idea of the Buddhist relations of essential identity (tādātmya) and of causality (tad-utpatti).

Then another problem arose: how can we know the avinabhava relation with certainty, 'because just by seeing [two things] together in some cases it is not proved that one [of them] does not occur without the other one in all cases'72? It does not suffice not to observe two things together to have negative example, either⁷³. Like the Buddhists. the Jainas rejected the idea of repeated observation (bhūvo-darśana) of either co-presence or co-absence of two particulars as the basis for our inference, propounded by the Mīmāmsaka⁷⁴, because repeated observation, like repeated practice⁷⁵, does not warrant any certainty, and as such could not be classified as valid form of inference.

The problem concerns the extrapolation from individual cases to a universal rule:

'Since inseparable connection is a relation, and it is preceded by grasping two relata, and [these] two relata are two separate particulars, how then it is possible to grasp [their] invariable concomitance as something which applies to everything?'76

The Jainas tried to solve the dilemma in the following way:

"...the invariable concomitance is possible as indeed something which applies to everything [when we take it as a relation that relates] two particulars characterised by (sc. typifying) the universal. Therefore, the fault of infinite regress etc. does not find room here.'77

In other words, classes of individuals are tokened by their actual particular representations. This move was possible due to the Jaina ontology that recognised that that the notions of the particular and the universal are mutually dependent⁷⁸, and that 'manifold particulars are grounded in the universal (homogeneity)⁷⁹. Accordingly, at the moment of perceiving a particular, we cognise the universal in which this particular is grounded.80

But this still does not solve the question how to know that two separate universal-tokened particulars are related in a necessary way. Repeated observation (bhūvo-darśana) does not suffice, because it entails a number of problems, pertaining both to the issue of universally binding validity and to the possible method of arriving at such an extrapolation. 81 We cannot know the invariable concomitance (vyāpti) either by pratyaksa—one of the reasons is that the vyāpti associates different times and places, which is impossible in case of pratyaksa—82 or by anumana, because that would lead to the faults of mutual dependence (anyonyâśraya), lack of foundation (anavasthā) or regressus ad infinitum)83. The conclusion is that we must accept a special cognitive criterion called tarka to be able to cognise the vyāpti.

Both the criticism and the conclusion are stated by Akalanka in the Laghiyas-traya in the verse 2.11cd-12ab and in his auto-commentary:

'No inferential sign can be known through non-conceptual comprehension (viz. perception) or through inference, because it is not established; [hence] another cognitive criterion (suppositional knowledge, tarka) is immediately [called for].

For perception is not capable of carrying out such operations as for instance: "a particular smoke is an effect of nothing else but some fire at some other time and some other place, not [an effect] of any other thing," because [perception] cannot examine [things], insofar as it arises by force of proximate things. Neither [can this be accomplished by] inference, because there is no difference with regard to all cases (sc. levels) [of inference]84, for—if the invariable concomitance between the inferential sign and the sign-possessor is not established as a whole—there cannot be anything like inference with regard to anything. It is not correct to say that there is no non-perceptual cognitive criterion which is different from inference, because the faculty of comprehending the inferential sign is another cognitive criterion.'85

What is meant here is the suppositional knowledge (tarka), being only a subdivision of the indirect cognition (paroksa), 86 one of two main types of cognitive criteria (pramāna) recognised by the Jainas. which replaces the knowledge based on tādātmya and tad-utpatti (LTV 2.12cd-13.ab: 'it is impossible to know the relation of essential identity and relation of causality without the suppositional knowledge of "inexplicability otherwise", see p. 346 and n. 20). Suppositional knowledge warrants the reliability and certitude of inference, because it is maintained to be capable of legitimate extrapolation beyond the present instant.87

Further, Akalanka states that

'Observation of one [thing] without reflection does not show the invariable concomitance of the logical reason with the inferable property; [and] this is the suppositional knowledge that has as its object uncognised [things] in their totality. '88

The cognising of an uncognised object renders additional support to my claim (p. 347 f.) that there is deeper similarity between the Mīmāmsā notion of arthâpatti and Jaina notion of anyathânupapatti.

Still, these descriptions are not sufficient to understand the proper nature of tarka (suppositional knowledge), also called uha (presumptive knowledge). More revealing on this point is Siddharsigani:

"[Suppositional knowledge] arises in the point of time posterior to [either] perception or non-comprehension, grasps positive concomitance or negative concomitance, is undeviating and its domain pervades the three times, which is based on the sensuous cognition.'89

This is in complete agreement with another statement of his:

'Presumptive knowledge is disposed towards grasping the relation of the inferential sign, characterised by inexplicability otherwise, with the probandum that cannot be sensed by perception or by inference. 900

How this presumptive knowledge (uha), or suppositional knowledge (tarka), works—in a twofold manner—is explained by Devabhadra:

'Presumptive knowledge is the cognition of invariable concomitance by reason of comprehension or non-comprehension, e.g.: x occurs only when y is there $(x \rightarrow y)$, and [y] does not occur only when [x] is not there $(\neg x \rightarrow \neg y)$, '91

which is in agreement with Prabhacandra⁹².

If we also take into consideration the passage of NKC p. 423.10-424.3 ad LT 2.10 (vide supra, n. 62), we notice that suppositional knowledge (tarka) of the Jaina seems to proceed as follow:

whenever there is ν , there must be $x too (x \rightarrow \nu)$; or only when there is no x, there is no $\nu(\neg x \rightarrow \neg \nu)$.

Thereafter the avinabhava relation is established:

x is necessarily related to $y(y-avin\bar{a} x-abh\bar{a}va)$ [i.e. occurrence of y logically follows from the occurrence of x, and non-occurrence of x logically follows from the non-occurrence of y;

and anyathânupapatti states:

If there were no ν , there would be no x.

Hence the conclusion:

but there is x. so there must be ν .

In the reasoning, we presume a counter-thesis contrary to 'y is P' and draw a conclusion that is contradicted by observation or other cognitively valid procedures.

This is not a very different way of reasoning from the $tarka \mid \bar{u}ha$ recorded in the Nyāya tradition:

'Suppositional knowledge [consists in] presumptive knowledge in order to cognise the truth (sc. essence) [of an object]—in [the case of] an object the essence of which is unknown—by explicating [its] causes. 93

A closer description is found in the Bhāsva.

'Suppositional knowledge is not reckoned among cognitive criteria, [because] suppositional knowledge is not another cognitive criterion; [it merely] assists cognitive criteria, as an ancillary, to [obtain] the cognition of the truth (sc. essence) [of an unknown object. So, here] is an illustration of that [suppositional knowledge]: is this birth (sc. mundane existence) brought about by a cause in force or by a [cause] not in force, or [is it] fortuitous? In such a manner proceeds presumptive knowledge with regard to an unknown matter by explicating [its] cause: "If [this birth (sc. mundane existence)] [were] brought about by a cause in force, then at the destruction of the cause the destruction of this birth (sc. mundane existence) [would] take place. If [this birth (sc. mundane existence)] were brought about by a [cause] not in force, then the destruction of this birth (sc. mundane existence) [could] not take place [at all], because the destruction of the cause would be impotent. If [this birth (sc. mundane existence)] were fortuitous, then the cause of [its] termination would not be explicable, since [this birth (sc. mundane existence)], once being fortuitously brought about, would not terminate in its turn; hence [the result would be] the non-destruction of this birth (sc. mundane existence)". '94

Here the reasoning is as follows:

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Is x P or R or ... or S?
            → conclusion is contradicted by observation, inference, etc.
x is P
x is R
            → conclusion is contradicted by observation, inference, etc.
x is S
            → conclusion is contradicted by observation, inference, etc.
x ...
            → conclusion is contradicted by observation, inference, etc.
therefore x is Q.
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Here we draw a series of conclusions that are not contrary, but are various possible solutions to the question. Then we eliminate all conceivable conclusions but one by showing that they are in the end contradicted this way or another by various cognitive criteria. What remains is the only correct solution left. Not only have we here more than one thesis (x is P, x is R, x is S, ...), but also we do not presume its counter-thesis (x is non-P).

There seems to be some kind of link between the tarka of the Naiyāyika and that of the Jainas. Both the Naiyāyika and the Jainas must have been aware that they apply the same term, but classify it either as an additional tool (amugrahaka), which in itself is not a pramāṇa, or as a genuine pramāṇa. In the light of the passage quoted above from NBh 1.1.1, that claims that tarka is not a separate pramana, it becomes easier to explain the insistence of Jaina authors on the tarka's status of a separate pramana.

5. Conclusion

The question now arises whether my demonstration is based on loose associations and verbal analogies?

Revealing for us would therefore be what the Jainas themselves had to say on this matter. Let me refer to two verses quoted from Jaina sources (unidentified, Pātrasvāmin?) by Kamalaśīla in his Pañjikā.

'Some accept what is not observed in the example without the inferable property to be [the correct] logical reason. However, I [accept] what is impossible in the property-possessor without this [inferable property to be the correct logical reason].

Our inference is accepted as indeed different from the presumption of the Mīmāmsā school as well as from the inference of the Buddhists, like a man-lion.'9

These verses confirm my supposition that the Jaina model of inference evolved as a blend of Mīmāmsaka and Buddhist ideas. The image of nara-simha is both different from the man and from the lion, but to have this notion at all, we need essential similarity to both the man and the lion. The Jaina author of these two verses was well aware that the novel model of logic he wanted to apply resembled both Buddhist and Mīmāmsā models, and therefore he considered it crucial to emphasize the new elements.

In their novel concept of inference, the Jainas combined three elements: (1) anyathânupapatti of the Mīmāmsaka, (2) avinâbhāva of the Buddhist, and (3) tarka of the Najyāvika. Jokingly we may say that this safeguarded their open attitude in the spirit of anekânta-vāda!

It is a matter of sheer speculation at this stage of investigation who was the first to combine and reinterpret various elements into a new definition of *hetu* and a new framework of *anumāna*, and what motives prompted that shift.

Perhaps the inspiration came from the side of the Sāmkhya. In the Yukti-dīpikā⁶ we come across a highly interesting and relevant passage, which only confirms the appositeness of the subtile of the Wezler-Motegi edition ('The Most Significant Commentary on the Sāmkhyakārikā'):

'This [presumption] is twofold: deviating (fallacious) and undeviating (legitimate). ... The [kind of presumption] which is characterised by

inseparable connection and which is undeviating (legitimate) is [merely] inference, for instance: After one has seen a fight between a lion and a boar in vicinity, and after one has seen the lion roaming alone with its body marked with wounds [inflicted] by the boar, it is understood that the boar has been defeated. Why? Because there is an undeviating relation between the victory and defeat in the case of the lion and the boar. In this case, if one has seen the victory of the lion, the defeat of the other (viz. the boar) is understood in an undeviating manner. What else could that be except inference?! For—in the case] of someone who understands the association of two related [objects xand y] that have been comprehended—such an understanding of the related [object] y from one [object x] of two related [objects x and y] previously perceived is inference. And accordingly, presumption cannot be different from that [inference], 97

This is in all probability the first, historically speaking, extant source in which we find the idea of arthâpatti (based on anyathânupapatti) combined with the relation of avinabhava to form a variety of anumana. We do find another attempt to subsume the arthâpatti procedure under the anumāna scheme in Prasastapāda-bhāsva.

'Presumption [derived] from an object of perception is nothing but fallacious. [Presumption derived] from hearing is inference [based] on something inferred. '98

It is however very unlikely that this tradition influenced the development of the Jaina concept in question, because we lack here even one of the two crucial elements (avinabhava and tarka).99

Despite serious drawbacks, this was a crucial move: the Jainas claimed to have one invariant relation that allows extrapolation irrespective of whether we could cite any positive instantiations (sapakṣa) or negative instantiations (vipakṣa). In general, this invariant relation no longer necessitated empirical exemplification, and tended to become an autonomous logically valid rule, and not merely an extrapolation from experience. Perhaps for the first time in Indian philosophy we can observe a strong tendency to emancipate reasoning from empirical instantiations.

There was a price to pay. The burden of proving the invariability of our assumptions was shifted from the logical reason (hetu) onto the suppositional knowledge (tarka). The situation did become different though: we no longer had inferential rules and relations (hetu and vyāpti) that were liable to falsification. Instead, in the Jaina model, we were told to be able to infer by using what were believed to be infallible rules. In this way the question of verification of the logical reason was dissociated from the level of the logical reason. The verificatory

principles no longer constituted the nature (laksana) of the logical reason, but were transferred to the second-level domain of the suppositional knowledge (tarka). What remained uncertain were still the methods to know infallible principles on which tarka rests.

Consequently, I would view Jaina concept of logic based on the notion of anyathânupapatti as an attempt to solve the problem of induction, which is entailed by the generally empirically oriented Indian logic. The problem of induction involves primarily two phases: (1) one has to established an invariant relation between two individual particulars (viśesa), which typify two classes, and subsequently (2) one has to extrapolate in order to establish a invariant relation between the two typified classes (sāmānya). The difficulty is that the two phases are equally defeasible and open to possible revision, if a counter-example obtains, and thereby that contributes to the increase in unreliability of the established relation. From the point of view of Jaina ontology, the two phases merged. We no longer had a two-phased inductive reasoning: by observing a relation between two particulars one instantly could extrapolate to whole classes. As soon as one could establish an invariant relation between two classes, the inference would loose its induction-based deficiency.

A question now arises: how far is the distinction between induction and deduction relevant to Indian logic at all? The mere fact that Indian models of inference in general, it seems, resorted to empirical exemplification and left no scope for deductive reasoning would rather speak against ascribing a deductive character to Indian logic. In Indian logic we link not ideas or propositions, but events. That is why the inductive-deductive distinction seems not at all applicable to the realm of anumana. Where it does seem highly relevant is a kind of 'metaanumana', viz. second-level patterns that underlie first-level patterns of particular cases of anumana that pertain to events. What the Jaina seemed to attempt to achieve was to formulate conditions of validity of patterns of reasoning which we could classify as second-level inference, viz. proper logic where the distinction between inductive and deductive starts to apply. That would be the anumana based on the principles of avinabhava and anyathanupapatti, whereas the problem of traditional first-level anumana, which needs to be inductively instantiated, is shifted to the realm of tarka. That is why in my opinion the Jaina solution, albeit unique in India, cannot be deemed successful.

The Jaina verses, allegedly by Pātrasvāmin, quoted from Kamalaśīla's Pañjikā, as well as several other formulations also show that we can dispense with drstantas because our inference is concerned

with the subject alone. This was the next step in the 'economical' trend¹⁰⁰ to dispense with all unnecessary elements of our reasoning, and it opened a genuine possibility of developing strictly formal logic, in the sense of being independent from circumstances. Mere understanding of the logical rules allows us to infer correctly, without taking recourse to empirical instantiations:

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'If a [person] to be taught recollects the logical reason as inseparably connected with the probandum in all cases, how could he then-having [re]cognised this [logical reason] in the thesis—not understand the probandum?'101

Additional positive and negative instantiations have no logical or formal value, because the inference is valid anyway. 102

Nonetheless, they do have practical, or didactic value of instruction 103. The examples do not fulfil any formal role any longer and they are not necessary to validate the inference: the determination of two properties (sādhya and sādhana) in the example is already established, hence it can be recalled (sambandha-smaranāt)104. That is why the Jainas advise to apply a ten-membered proof formula for educational purposes alone. 105 However, under certain conditions and provided one remembers the invariant relation, one can argue by applying a single-membered proof formula, that consists of the logical reason alone! 106

For Siddhasena Mahāmati, even the thesis (pakṣa) does not have to be necessarily expressed, if it can be understood from the context; the demand for a thesis is to disambiguate one's own statements, in case they cannot be easily understood from the context:

'[14cd] the pronouncement of this [thesis] has to be made here as showing the domain of the logical reason. [15] Otherwise, for a [person] to be apprised, who is confused regarding the domain of the logical reason intended by the proponent, the logical reason might appear to be suspected of being contradictory, just like... [16] ... for a person watching an archer's skill, the archer who hits without the specific mention of the target [is endowed with both] skill and its opposite.'10

Would that mean that this decrease in the number of members of the proof formula finally entails the consequence that the reasoning of the anyathânupapatti type, based on the avinâbhāva relation, tends to gravitate towards a deductive formula with two variables (sādhya and sādhana)? At the same time, however, as a counter-development, the procedures of reasoning seem to become more context-dependent,

which gradually requires further developments in the contextdisambiguating tools of the theory of syad-vada and nava-vada.

NOTES

I would like to thank Jonardon Ganeri for his comments and suggestions. 'Inexplicability otherwise' in mentioned in NA 22ab: anyathânupapannatvam hetor laksanam iritam / — 'The definition of the logical reason has been proclaimed [to be] inexplicability otherwise.' The inseparable connection of hetu with sādhya is mentioned in NA 5ac: sādhvâvinā-bhuno lingāt sādhva-niścāvakam smrtam / anumānam..., NA 13ac: sādhyāvinā-bhuvo hetor vaco yat pratipādakam | parārtham anumānam... (vide infra, p. 16). ² 'Inexplicability otherwise' in mentioned in Akalanka's auto-commentary (Sva-vivrtih) ad loc. (vol. 2, pp. 434-435.1-2); na hi tādātmya-tad-utpattī jñātum śakyete vinânvathânupapatti-vitarkena, tābhyām vinâva eka-laksana-siddhih, vide infra n. 20. The inseparable connection of hetu with sādhya is mentioned in LT, vol. 2, p. 434 (Pramāna-praveša 2 (Parkosa-pariccheda) 11cd-12ab), vide infra p. 346. ³ YAT p. 122,20–123,2, ad YA 49 (vide infra, n. 23) and YAT p. 127,2–3 (ad YA 50): tato jīvādi-padārtha-jātam parasparājahad-vrtty-ekâneka-svabhāvam vastutvånyathånupapatter iti yukty-anusäsanam. ⁴ PĀ 3.10: sādhyâvinâbhāvitvena niścito hetuh. ⁵ Alias Pātrakesarin / Pātrakesarisvāmin (?), cf. Pandita Dalsukh Mālvaņiya's note (p. 270.15-18) in his Tippanāni to Sānti Sūri's Nyāyāvatāra-sūtra-vārttika p. 102.27. Pātrasvāmin is occasionally (SUKHLAL-DOSHI (1928), CHATTERJEE (1978: 331)) identified with Vidyānanda. Pātrasvāmin, however, preceded Śāntarakṣita (c. 725-788—cf. Steinkellner-Much (1995: 56)), the teacher of Kamalaśīla; cf. BHATTACHARYYA (1926: ixvi-ixvii): 'In that case Pātrasvāmin must be an earlier author than both Santaraksita and Vidyananda, and he must have first propounded the theory that valid reason is that the existence of which cannot be maintained unless it is invariably concomitant with the major term... cir. 700 A.D.' Therefore, he must be some other Vidvānanda than the author of the Śloka-vārttika on Umāsvāti's Tattvārthasūtra which was composed around 850 CE; see UPADHYE (1971: *14-15), PATHAK (1930: passim) and PATHAK (1930-31: passim), who refers to him as Pātrakesari Vidyānanda or as Pātrakesarisvāmi, and BALCEROWICZ (2000: 45). 6 SVR ad 3.13, p. 521.5-6: tad uktam pātrasvāminā. nânvathânupapannatvam vatra tatra travena kim | anyathânupapannatvam yatra tatra trayena kim // iti [= TSa 1369] A reference to the work is found in DHAKY (1995: 43), who refers to Jugal Kishor Mukhtar's article: 'Sammatisūtra aur Siddhasena' in Jaina Sāhitya aur Itihāsa par Visada Prakāsa, Calcutta 1956: 538-543 [the work was not available to me]. ⁸ PS 2.5cd: anumeve 'tha tat-tulye sadbhāvo, nâstitâsati. Cf. TS 2.1, p. 13.16–17: asmābhis tri-lakṣaṇo hetuh sthāpitaḥ. tad yathā: pakṣa-dharmaḥ sapakṣatvaṁ vipakṣavyāvrttis ca; and NP p. 1.5-6; hetus tri-rūpah, kim punas trairūpyam? paksadharmatvam sapakse sattvam vipakse câsattvam iti. ⁹ The use of gamakah may be an additional clue to post-Kumārilan date of Pātrasvāmin, cf. MŠV 5.4 (anumāna-pariccheda) 4 (p. 248,3.7): sambandho vvāptir istātra linga-dharmasva linginā/ vyāpyasya gamakatvam ca vyāpakam gamyam isyate || and MSV 5.4 (anumana-pariccheda) 22cd-23ab (p. 251): tasmād va eva vasvārtho drstah sādhana-saktitah ||

sa eva gamakas tasya na prasanganvito 'pi vah | [TSa 1364] anyathânupapannatve nanu dṛṣṭā suhetutā/ nåsati try-amsakasyâpi tasmāt klībās tri-laksanāh || [TSa 1365] anyathânupapannatvam yasyâsau hetur işyate/ eka-laksanakah so 'rthas catur-laksanako na va || [TSa 1367] avinābhāva-sambandhas tri-rūpesu na jātucit/ anvathâsambhāvâikânga-hetusv evôpalabhyate || ... [TSa 1368] anyathânupapannatvam yasya tasyaîva hetutā/ vântau dvāv api stām vā mā vā tau hi na kāraṇam || [TSa 1369] nânyathânupapannatvam yatra tatra trayena kim/ anyathanupapannatvam yatra tatra trayena kim || [TSa 1371] tatráika-laksano hetur drstanta-dvaya-varjitah/ kathañcid upalabhyatvād bhāvâbāvau sad-ātmakau || ... [TSa 1379] tenaîka-lakşano hetuh prādhānyād gamako 'stu nah! pakṣa-dharmâdibhis tu anyaih kim vyarthaih parikalpitaih || For verses TSa 1372-1376, see below pp. 349-350. The above fragment is also translated in KUNST (1939).

11 Cf. NAŢ ad NAV 5.2 (H: p. 54.1 and V: p. 35.4): NAŢ ad loc: tat-putrādīnām iti. atrânumānam. sa śyāmah tat-putratvāt, paridṛśyamāna-putravad iti. ādi-śabdāt pakvāny etāni āmra-phalāni, eka-śākhā-prabhavatvāt, upabhujyamānāmra-phalavad ity-ādi parigrahah.— '[A gloss on the phrase]: "being his son," etc. Here the inference [is as follows]: "He is dark-complexioned because he is his son, just like the son who is just being seen". By the word "etc." a reference [is made to the erroneous following reasoning]: "these mangoes are ripe, because they grow on the same branch, like the mango which is just being eaten".

Devabhadra clearly regards the above examples as cases of unwarranted inference from sampling. However, in their structure they do not seem to differ from some cases of inference from sampling regarded as valid ones, for instance:

-invalid inference: 'these mangoes are ripe, because they grow on the same branch, like the mango which is just being eaten,'

-valid inference: 'all mango-trees are blossoming, because one mango-tree is blossoming' (see below, n. 12, NAV 5.2).

Interestingly enough, Pātrasvāmin's register, found in TSa, of valid inferences that do not fulfil the trainipya-conditions does not overlap with those mentioned, e.g. in NAV 5.2: niyamena sādhyâvinâbhāvitvasyavôddīpanāt, tac ced asti kim trailaksanyâpekṣayā, tasyâva gamakatvāt. tathā hi: jala-candrān nabhaś-candrain, kṛttikôdayāc chakaṭôdayam, puspitâka-cūtāt puspitâsesa-cūtān, candrôdayāt kumudâkara-prabodham, vṛkṣāc chāyām ity-ādi pakṣa-dharmatva-virahe 'py anumimimahe.—'If [you concede that it is indeed] that [inferential sign inseparably connected with the probandum that is alone the condition of inference, then] what is the use of requirement of the triplet of characteristics [of the logical reason]? Certainly, that being the case, the triplet of characteristics of the logical reason is useless] because this [inferential sign inseparably connected with the probandum] alone leads to the comprehension [of the inferendum]. For it is as follows: we do infer-even without [the characteristics of] the inherence of a property in the locus—like in the following [examples]: (1) from [the reflection of] the moon in the water [we infer] the moon in the sky, (2) from the rise of the constellation of the Pleiads [we infer] the rise of the Rohini constellation, (3) from one blossoming mango-tree [in the proper season we infer] that all mango-trees are blossoming, (4) from the rise of the moon, [we infer] the opening of clusters of kumuda white water lilies, (5) from a tree [we infer its] shadow, etc.' ¹³ Cf. Kellner (1977: 97 n. 146).

14 E.g. in TSVA p. 203 (the discussion of anyathânupapatti and the refutation of trilaksang is found there on pp. 198-217), in TBV (vol. II, p. 569.28-29), in NASV 43 and PMī 2.1.9 § 33 (p. 45.17-18).

15 E.g. Hemacandra's criticism against the Buddhist idea of trairūpya in PMī 2.1.9 § 33 (p. 45.1-16) closely follows the exposition of Pātrasvāmin's aphorisms quoted in TSa. 16 NA 5ac; sādhyāvinā-bhuno lingāt sādhya-niścāyakam smrtam | anumānam ...

sādhyāvinā-bhuvo hetor vaco yat pratipādakam | NA 13: parârtham anumānam tat paksâdi-vacanâtmakam ||

NA 22ab: anyathânupapannatvam hetor laksanam iritam /

¹⁷ As regards the expression *hānādi-buddhayah*, cf. YS 2.16 ff. and NBh on NS 1.1: heyam tasya nirvartakam hānam ātyantikam tasyôpāyo 'dhigantavya ity etāni catvāry artha-pādāni samyag buddhvā nihśreyasam adhigacchati, as well as NA 28: pramānasya phalam sāksād ajñāna-vinivartanam | kevalasya sukhôpekṣe śeṣasyâdānahāna-dhīh //. On the issue of 'the avoidance of things which should be avoided, in the appropriation of things which are worth appropriating and in the indifference to things which deserve indifference', see WEZLER (1984).

18 LT 2.12cd-13ab (Pramāna-praveśa 2 (Parkoṣa-pariccheda) 12cd-13ab; Vol. 2, p. 434):

lingat sädhvävinäbhäväbhinibodhaka-laksanat | lingi-dhīr anumānam tat-phalam hānādi-buddhayah ||

¹⁹ Since in the Dinnaga's-Dharmakirti's logic, the probans (sādhana) can either be the logical reason as essential property (svabhāva-hetu) in case of relation of essential identity (tādātmya) or the logical reason as effect (kārva-hetu) in case of the relation of causality (tad-utpatti), therefore since in Akalanka's example the tree is examined as either the essential nature or the effect of the shadow, it is clear that the inference Akalanka has in mind is that from the tree to the shadow: vrksāc chāvām, for the same example comp. n. 12 and p. 350.

²⁰ LTV 2.12cd-13ab (Pramāna-praveša 2. Parkosa-pariccheda 12cd-13ab; Vol. 2, p. 435.1-3): Vivṛtiḥ: nahi tādātmya-tad-utpattī jñātum śakyete vinânyathânupapattivitarkena tābhyām vinaîva eka-lakṣana-siddhih. nahi vṛkṣâdih chāyâdeh svabhāvah kārva vā, na câtra visamvādo 'sti.

²¹ The verse (YA 49, p. 122) reads:

drstågamabhyam aviruddham artha-prarupanam yukty-anusasanam tel pratiksanam sthity-udaya-vyayâtma-tattva-vyavastham sad ihârtha-rūpam || -- '[O Jina!] Your persuasion [based on] logical reasoning (sc. anumāna)^a is the description of an object, which is not contradicted by what is perceived or by testimony. Here [in your teaching] the being is an [external and internal] object, determined as an entity the nature of which consists in continued existence, rise and annihilation.'

^a Samantabhadra's and Vidyānanda's description equate yukty-anusāsana with anumāna, as a separate indirect cognitive criterion (pramāna), in addition to testimony (agama). However, the Jainas of the 'non-Agamic' tradition recognise one indirect cognitive criterion (paroksa) that bifurcates into two main divisions, anumana and śābda.

b Comp. similar idea in NA 8ab (dṛṣṭêṣṭâvyāhatād vākyāt paramârthâbhidhāyinaḥ) and NA 9b (adrstêsta-virodhakam). See also Vidyānanda's comments ad YA 49: Tīkā: dṛṣṭam câgamas ca dṛṣṭâgamau tābhyām aviruddham abādhita-viṣayam yad arthāt sādhana-rūpād arthasya prarūpanam tad eva yukty-anuśāsanam yukti-vacanam te tava bhagavato 'bhimatam iti pada-ghatanā. tatrārthasya prarūpanam yukty-anuśāsanam iti vacane pratyakşam api yukty-anusasanam prasajeta tad-vyavacchedartham arthat prarūpanam iti vyākhyāyate sāmarthyād arthasya tad iti pratīteh.

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<sup>22</sup> For the peculiar use of prāyam as the last member of the compound (e.g. nirnīta-
prāyam) see for instance NAV 29.17: vyāpi-rūpasya vicārākṣamatvād ity ukta-prāyam.
  YAT adYA 49, p. 122.20-123.2: tathā cânyathânupapannatva-niyama-niścava-
laksanāt sādhanāt sādhyārtha-prarūpanam yukty-anusāsanam iti prakāsitam bhavati
drstågamābhyām avirodhasyânyathânupapatter iti devâgamâdau nirnīta-prāyam.
  See also Vidyānanda's discussion of anyathânupapatti and the refutation of tri-
 laksana is on pp. 198-217.
<sup>25</sup> Siddhasena maintains that dṛṣṭânta is not an essential part of 'syllogistic' reasoning,
inasmuch as the relation of invariable concomitance (vyāpti) suffices to prove the
thesis, see NA 20:
   antar-vyāptyaiva sādhyasya siddher bahir-udāhrtih |
   vyarthā syāt tad-asadbhāve 'py evam nyāva-vido viduh ||
   - Since the probandum is proved only by the intrinsic invariable concomitance.
  an exemplification from outside would be pointless; experts in logic have
  recognised that also in its absence [this exemplification is] such (pointless)."
Conspicuously Siddhasena refers to some earlier tradition (nvāva-vido viduh).
 <sup>26</sup> SBh 1.1.5 (p. 11): arthâpattir api dṛṣṭaḥ śruto vârtho 'nyathā nôpapadyate ity artha-
kalpanā. yathā: jīvati devadatte grhābhāva-daršanena bahir-bhāvasyādṛstasya
<sup>27</sup> MŚV 5.7 (arthâpatti-pariccheda) 1 (p. 320):
  pramāna-satka-vijnāto vatrārho nānvathā bhavet
   adrstam kalpayed anyam sârthâpattir udāhrtā [[
<sup>28</sup> LT 2.16 (Pramāṇa-praveśa 2 (Parkoṣa-pariccheda) 16; Vol. 2, p. 462–463):
   adrśya-para-cittâder abhāvam laukikā viduḥ!
   tad-ākāra-vikārâder anvathânupapattitah ||
<sup>29</sup> Sc. people infer the existence of various invisible events, e.g. assume that other
people are endowed with consciousness, etc., even though these are not directly
perceived.
 <sup>30</sup> LT 2.16 (Pramāna-praveśa 2 (Parkoṣa-pariccheda) 16; Vol. 2, p. 462):
   adrsya-para-cittâder abhāvam laukikā viduh
   tad-ākāra-vikārāder anyathânupapattitah ||
31 NKC, p. 463.1-6: adršyaś câsau para-cittâdiś ca, ādi-śabdena bhūta-graha-vyādhi-
parieraĥah, tasyâbhāvaṁ laukikā viduh. kuta ity atrâha—tad-ākāra ity-ādi. tena
adrśya-para-cittâdinā saha-bhāyī śarīra-gata usna-sparśâdi-laksana ākārah tad-
ākārah anyathā-bhāva ādir-yasya vacana-viśesasya tasya anyathânupapattitah.
32 This is an interesting point to notice how differently the same—ostensibly obvious—
case can be described depending on cultural background and presuppositions. In
European cultural context in general the question whether a person is dead or alive is
determined in terms of what the Jainas would consider mere symptoms.
33 This attests to practical usefulness of 'inexplicability otherwise' and its
indispensability in any activity ascribed by the Jainas.
34 NAV 1.8: ... sarvatrânyathânupapannatâvadhāritôcchvāsa-niḥśvāsâdi-jīva-linga-
sadbhāvāsadbhāvābhvām jīva-sāksāt-kāri-pratvaksa-ksūne 'pi jīvan-mrta-pratīti-
darsanād, anyathā loka-vyavahārābhāva-prasangāt.
35 For the Mīmāmsaka position, comp. see above nn. 26, 27 (SBh: dṛṣṭaḥ śruto vârtho,
and MSV 5.7 [Arthâpatti-pariccheda] 1). For the Jaina examples, comp. above nn. 21,
23 (YA 49, p. 122: drstågamäbhyām aviruddham, NA 8ab; drstêståvyāhatād vākyāt
paramârthâbhidhāyinah, and NA 9b. adrstêsta-virodhakam). Similarly, commenting
on LT 2.12 (p. 435.4-5), Prabhācandra states explicitly that 'the invariable
concomitance [consists in] the inseparable connection with the inferable property that
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is qualified by a distinctive feature not subverted by what is accepted (sc. testimony)'
(sādhvena istābādhitāsiddha-višesana-višistena avinābhāvo vyāptih ...).
The idea that we may rightfully presume the existence of something perceptually
inaccessible, either because of subtlety (e.g. some invisible potential, as in the example
below), distance or time, is accurately expressed by Siddharsigani in
NAV 1.14: arthâpattis tu pratyakşâdi-gocarī-kṛta-sphotâdi-padârthânyathânupapattyā
dahana-śakty-ādikam pāvakāder arthântaram pūrva-darśana-gocarāt samadhikam
avyabhicaritam parikalpayantiti pramānatām svi-karoty eva, tal-laksaņa-yogāt.—
'However, taking into account that [people] conclude from fire, etc., another object,
which is additional to the domain of previous perception [and] undeviating, [namely,
that fire] is possessed of the power of burning, etc., inasmuch as such entities as
blisters, etc., that constitute the domain of perception, etc., are otherwise inexplicable,
presumption [too] appropriates undeniably cognitive validity, because it satisfies the
definition of this [cognitive criterion].'
36 Cf. NBh 2.2.1: arthād āpattir arthâpattih. āpattih prāptih prasangah.
yatrâbhidhiyamāne 'rthe yo 'nyo 'rthah prasajyate so 'rthâpattih, yathā meghesv
asatsu vṛṣṭir na bhavatiti. kim atra prasajyate? satsu bhavatiti.
37 AS (Tantra-vukti) 15.29: vad anuktam arthād āpadyate sârthâpattiḥ.
38 See, for instance, the usage of the presumptive scheme in Dharmottara's reasoning in
NBT 1.9 (p. 62.2): itarathā caksur-āśritatvānupapattih kasyacid api vijñānasya—
 'Otherwise, it would be inexplicable how the [sensory] consciousness could be based
on the eve.
 <sup>39</sup> See above p. 344 and n. 11. Despite some similarity, this is a different kind of
 reasoning that the one found in MSV 2 (codanā-sūtra) 182ab (p. 74-75): śyāmatve
 pumstvavac câitat sādhāranye nidarsanam |
  Interestingly, this case is first classified by Siddharsigani as a proper instance of
 presumption in NAV 1.14: arthâpattis tu pratyaksâdi-gocari-krta-sphotâdi-
padârthânyathânupapattyā dahana-śakty-ādikam pāvakâder arthântaram pūrva-
 darśana-gocarāt samadhikam avyabhicaritam parikalpayantiti pramānatām svi-karoty
 eva, tal-laksana-yogāt. Immediately afterwards Siddharsigani adds that even this case
 is an instance of indirect cognition (paroksa, or in Samantabhadra's terms: yukty-
 anuśāsana), NAV 1.14: sarveṣām câiteṣām parokṣe 'ntar-bhāvo,
 'nyathânupapannârthântara-darśana-dvārena prastutârtha-samvedana-caturatvād
 iti.-- 'And all these [sub-varieties] are included in the indirect cognition because they
 are apt to [produce] a sensation of the object under discussion by the means of
 perception of another object which is otherwise inexplicable.'
  MŚV 5.7 (arthâpatti-pariccheda) 87d-88 (p. 335):
   sambandha-drk tatra kācid asti ||
   tat sarvam ity-ādy asamañjasam syān na cet iyam syād anumānato 'nyathā|
   evam-svabhāvāpy anumāna-sabdam labheta ced asti yathēpsitam nah ||
 <sup>42</sup> Cf. 'impossibility otherwise' (anyathâsambhāva) in TSa 1367 (vide supra, n. 10).
 43 Cf. TS 1.1: samvag-darśana-iñāna-cāritrāni moksa-mārgaḥ.
 <sup>44</sup> Cf. VP 1.30:
   na câgamād rte dharmas tarkeņa vyavatisthate |
   rsinām api yaj jñānam tad apy āgama-pūrvakam ||
   - 'And the normative principle cannot be established by reasoning without
   testimony; even the knowledge of [Vedic] seers, too, was preceded by testimony.'
 Also Siddhasena Divākara (probably around the same time, c. 500 CE) expresses a
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similar idea that the application of reason is limited and subordinate to scriptural

testimony (agama); the eschatological aim, ergo the truly ethical dimension and

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soteriological destiny (e.g. one's capability to attain liberation), cannot be known
  without the scriptural testimony, see STP 3.43-45:
     duviho dhammā-vāo aheu-vāo ya heu-vāo ya |
     tattha u aheu-vão bhavivâbhavivâdao bhava ||
     bhavio samma-damsana-nāna-caritta-padivatti-sampanno |
    niyamā dukkhamta-kado tti lakkhanam heu-vāyassa ||
    jo heu-vāya-pakkhammi heuo āgame ya āgamio !
    so sasamaya-pannavao siddhamta-virahao anno ||
    - 'The exposition of normative principle (or: of properties) is two-fold: the
    exposition without reasoning (scriptural; agama) and the exposition based
   reasoning. Further, the scriptural exposition (agama) [distinguishes / deals with]
    beings competent for liberation and incompetent for liberation.
   The characteristic feature of the exposition based reasoning is [to argue rationally]
   that the being competent for liberation, who is endowed with the understanding of
    conation, correct cognition and correct conduct, will necessarily bring an end to
   The one who [applies] reasoning to a topic [within the scope] of the exposition
   based reasoning (sc. in rational discourse) and [who applies] scripture to scriptural
   exposition, demonstrates his own doctrine. The other one [who fails to do so]
    abuses teachings.'
 45 See e.g. Ganeri (2001: 1–2).
 <sup>46</sup> Cf. VP 1.34:
    avasthā-deśa-kālānām bhedād bhinnāsu śaktisu |
    bhāvānām anumānena prasiddhir atidurlabhā||
   - 'Since the endowments [of things] are different due to difference in condition,
   place and time, the proof of things through inference is most difficult.'
 Notice the pun on it by way of quoting the same verse with some modification in its
 very refutation found in TSa 1476:
   avasthā-deśa-kālānām bhedād bhinnāsu śaktisu |
   bhāvānām anumānena nâtah siddhih sudurlabhā ||
 - ' ... the proof of things through inference is not so difficult on their basis.'
 <sup>47</sup> Cf. VP 1.34:
   yatnenânumito 'rthah kuśalair anumātrbhih|
   abhiyuktatair anyair anyathaivopapadyate ||
   'Even [when] a thing is inferred with much effort by expert logicians, it is [still]
   explicable in another way by other more skilled [logicians].
 Notice the pun on it by way of refutation in Tattva-sangraha 1477:
   yatnenânumito 'rthah kuśalair anumātrbhih|
   nânyathā sādhyate so 'nyair abhiyuktatair api ||
 48 NKC ad LT 2.12 (p. 444.16): tad-pratipattiś ca ūha-jñānāt ity api śraddhā-mātram.
Here tad-pratipattis = avinabhava -pratipattih, and uha = tarka,
<sup>49</sup> Cf., e.g. PVSV 3.24-25 (p. 185): tasmāt svabhāva-pratibandhād eva hetuh sādhvam
gamayati. sa ca tad-bhāva-lakṣanas tad-utpatti-lakṣano vā. sa evâvinābhāvo
drståntābhvām pradarsyate, and NB (1).3.31: sa [= svabhāva-pratibandhas] ca dvi-
prakārah sarvasya: tādātmya-lakṣaṇas tad-utpatti-lakṣaṇas cêty uktam.
50 E.g. the cases mentioned in TSa 1371ab and NAT ad NAV 5.2; see also n. 11 and
p. 344.
See the examples on pp. 349–350.
52 See the criticism in NKC p. 440.11-441.9.
53 Cf. NKC ad LT 2.12 (p. 440.4 ff.).
<sup>54</sup> Cf. e.g. Bhatt (1989: 218 ff.).
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55 Vide supra pp. 344 and 349. The above counters the supposition of Uno (1993: 160) that 'there is no divergence of opinion among Indian philosophical systems that these two (i.e. vyāpti and pakṣa-dharmatā—P.B.) are postulated as indispensable factors, either separately or jointly, for obtaining the conclusion, or the final inferential cognition (anumit).'

⁵⁶ Šee e.g. PV (P) 1.287cd (p. 61) = PV (S) 1.287ab (p. 109): anumānāśrayo lingam avinābhāva-lakṣaṇam / — 'The basis for infference is the inferential sign, which is characterised by the inseparable connection;' and PVV ad loc: avinābhāvaḥ sādhyāvyabhicāritvam tal-lakṣaṇam yasya tat tathā.

The term avinābhāva was, however, not the sole property of the Buddhist and it were probably not the Buddhists who coined it (vide infra, n. 60). However, I deliberately speak of 'the Buddhist relation of avinābhāva', for this relation is always discussed by the Jaina authors in the context of such Buddhist notions as trairūpya or tādātmya and tad-utpatti.

⁵⁷ Cf. also Prajñākaragupta's analysis in PVA (p. 70 in sva-vṛtti): avinābhāva eva hi niyamaḥ, sādhyam vinā na bhavatīti kṛtvā.

58 GANERI (2001: 152). Cf. also the Chapter 4.7 in GANERI (2001: 114-118).

⁵⁹ GANERI (2001: 152). This idea goes back probably to the *Vāda-vidhāna* [VāVi], an earlier work of Vasubandhu (?), see Fr. AI 7: hetur vipakṣād viśeṣaḥ—'The logical reason is the difference from dissimilar cases'.

60 The term avinābhāva was not an innovation of Dinnāga, for it is already attested in Vāda-vidhi [VāVi] of Vasubandhu as a relation validating the logical reason [Fr. B 5]: tādṛg-avinābhāvi-dharmôpadarśanam hetuḥ—'Logical reason is the demonstration of a property which is inseperably connected with [a property] of such a kind (to be infered)', cf. Frauwallner (1957:118, 136) and Franco (1990: 202). We find it also in PBh (2.12.2b.0) [250], p. 46-47: evam sarvatra deśa-kālāvinā-bhūtam itarasya lingam.—'In this way the inferential sign of the other (viz. of the sign-possessor) is inseparably connected [with it] as regards place and time in all cases,' as well as in PBh (2.12.2b.0) [261], p. 49: sambhāvo 'py avinābhāvitatvād anumānam eva—'Equivalence [as a cognitive criterion] is nothing but inference, in so far as it is based on the inseparable connection.' Cf. also Nenninger (1992: 124 ff.).

61 NKC p. 4218–9 ad LT 2.10: ayam avinābhāva-śabdah sādhyābhāve sādhanābhāvam vadatīti vyatireka-mātra-vacanah, na sambandha-vacanah.

⁶² NKC p. 423.10–424.3 ad LT 2.10: yac côcyate—avinâbhāva-śabdo vyatireka-mātra-vacano na sambandha-vacanah, tad apy ukti-mātram; yato 'vinâbhāva-śabdo na vyatireka-mātre paryavaṣyati ghaṭâdi-bhāve 'pi tat-prayrtti-prasangāt, kintu niyame. sa ca niyamah tathôpapatty-anyathhānupapatti-prakārābhyām vyavasthitah [see NA 17 n. 65]. atah tāv ubhāv api avinâbhāva-śabdena ucyate, "yatra yatra dhūmah tatra tatrāgnih, yatrāgnir nāsti tatra dhūmo 'pi nāsti" iti. nanu 'vatrāgnir nāsti tatra dhūmo 'pi nāsti" ity-etat kuto 'vagamyate ity cet? agny-abhāve dhūmaṣya niyamena apratīyamānatvāt tat-sadbhāva-niyata evāsau, anyathā yathā dhūmābhāve 'pi kvacid agnir upalabhyate tathā agny-abhāve dhūmo 'pi kvacid upalabhyeta. yasya yena vinā nānupapattir na sa tena niyatah yathā dhūmābhāve 'py upapadyamāno 'gnir na dhūmena niyatah, agninā vinānupapattis ca dhūmasya, tasmād asau tan-niyata iti. Comp. also PNT 3.29: hetu-prayogas tathôpapatty-anyathānupapattibhyām dvi-prakārah.

63 Cf. NAV 17.1: tayā tathôpapattyā, yathâgnir atra, dhūmasya tathâvôpapatter iti.
anyathâpi vēty anenâvayave samudāyôpacārād anyathânupapattim lakṣayati. anyathā
sādhya-vyatireke 'nupapattir avidyamānatāva tayā vānyathânupapattyā hetoḥ
prayogah svād. vathâpnir atra, dhūmasvânvathânupapatter iti. etc.

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<sup>64</sup> P\bar{A} (V) 3.89 = P\bar{A} (J) 3.90: vyutpanna-prayogas tu tathôpapatty-anyathânupapatter
65 NA 17:
  hetos tathôpapattyā vā syāt prayogo 'nyathâpi vā |
  dvi-vidho 'nyatarenâpi sādhya-siddhir bhaved iti ||
66 NKC p. 448.8 (ad LT 2.12): "idam asmin saty eva bhavati ato 'nyathā na bhavaty
eva". This passage occurs in NAT as a rule for suppositional knowledge (uha, tarka),
cf. n. 91. Interestingly, seemingly a similar formulation is found in TSa 1692:
  asmin sati bhavaty eva na bhavaty asatîti ca |
  tasmād ato bhavaty eva yuktir esā 'bhidhīyate||
This reasoning principle is called yukti and is attributed by Santaraksita to Caraka the
physician (TSaP ad loc. Caraka-vaidva) in TSa 1693ab:
  pramānântaram evêvam ity āha carako munih |
The main difference between Caraka's yukti and Jaina suppositional knowledge lies in
the fact that Caraka avails himself of a causal relationship (kārvā-karanatā, cf.
TSa 1696), which is pointed out by Kamalaśīla (TSaP ad loc, tad-bhāva-bhāvitvena
vat-kāryatā-pratipattir iyam yuktih), whereas for the Jainas suppositional knowledge
extends to all kinds of anumana. Furthermore, we can notice apparently different
position of eva: for Caraka the restrictive particle binds the result in the causal
relationship (bhavaty eva), whereas for the Jainas, eva binds the antecedent in an
inference (asmin satv eva).
<sup>67</sup> On this issue comp. Uno (1993).
68 E.g. NKC p. 434–435 ad LT 2.11cd–12ab: sādhyena iştâbādhitâsiddha-viśeşaṇa-
visistena avinābhāvo vvāptih. NKC p. 420.1 ff. ad LT 2.10; tathā hi: vvāptih
sambandho 'rthānām, sā ca deśatah kālato vā kasyacit kenacit syāt? na, NKC
p. 418.15-419.1 ad loc. (LT 2.10): vvāptir hi sādhva-sādhanavor avinābhāvah, see
also: NKC p. 315.9 etc.
69 E.g. NRĀ: ad MŚV 5.4 (anumāna-pariccheda) 4ab (p. 248.4): vyāptiḥ niyamaḥ.
<sup>70</sup> E.g. NKC p. 423.11–424.3, or NAV 5.3: tathā kārya-svabhāvânupalabdhi-rūpa-
linga-traya-niyamo 'pi kila tādātmya-tad-utpatti-laksana-sambandhâstitvam etesv
evêti, and NAV 18.1: sādhanam tad-gamako hetuh, tayoh sādhya-sādhanayor vyāptir,
idam anena vinā na bhavatītv-evam-rūpā ...
71 E.g. PV (P) 3.1c: avinābhāva-niyamād, and PV (P) 3.31c: avinābhāva-niyamo.
<sup>72</sup> NAV 18.1: na hi saha-darśanād eva kvacit sarvatrêdam amunā vinā na bhavatīti
sidhyati. Cf. also PV (P) 3.31:
  kārva-karana-bhāvād vā svabhāvād vā nivāmakāt|
  avinâbhāva-niyamo 'darsanān na darsanāt||
  - 'The law of the inseparable connection is [based] either on the cause-and-effect
  relationship or on the [essential] identity; [it is not based] on non-observation or on
  observation,'
as well as PVin II.63 (p. 94.23-26):
  | revu dan cbras but i dnos po cam |
  | ran bzin nes par byed pa las |
  | med na mi byun nes pa ste |
  | ma mthoù las min mthoù las min |
73 Cf. PV (P) 3.13b: na câdarśana-mātreṇa vipakṣe 'vyabhicāritā/
<sup>74</sup> MŚV 5.4 (Anumāna-pariccheda) 12–14 (p. 249–250):
  bhūvo-darśana-gamvā ca vvāptih sāmānva-dharmavoh
  jñāyate bheda-hāneh kvacic câpi višesayoh [[
  kṛttikôdayam ālakṣya rohiny-āsatti-klptivat!
  vyāptes ca drsyamānāyāh kascid dharmah prayojahah ||
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"asmin saty amuna bhavyam" iti saktya nirupyate!
  anye para-prayuktānām vyāptīnām upajīvakāh ||
<sup>75</sup> Cf. VP 1.35:
 paresām asamākhveyam abhyāsād eva iāvate |
 mani-rūpvādi-viinānam tad-vidām nānumānikam ||
  —'The experts' knowledge of precious stones and coins, which cannot be
  conveyed to others, arises from from repeated practice. It is not inferential.'
<sup>76</sup> NKC p. 421.8-9, ad LT 2.10: kiñca, avinâbhāvah sambandhah, sa ca sambandhi-
grahana-pūrvakah, sambandhinau ca dvau dvau višesau, atah katham
sarvôpasamhārena vyāptir grahītum śakyā?
<sup>17</sup> NKC p. 423.8–10, ad LT 2.10: yad apy abhihitam "avinâbhāvah sambandhah, sa ca
sambandhi-grahana-pūrvakah" ity-ādi; tad apy anenaîva pratyākhyātam;
sāmānyôpalakṣita-viśeṣayor vyāpteh sarvôpasamhārenaiva sambhavāt. na hi tatra
ānantvādi-doso avakāśam labhate.
78 Cf. NAV 29.23: tasmāt kathañcid bhedâbhedināv evâitau—'Therefore these two.
[i.e. the universal and the particulars], are somehow truly [both] different and not
different from each other.'
79 Cf. LT 2.47cd (p. 646): dravya-paryāya-sāmanya-viśesâtmârtha-niṣṭhitam, as well as
YA 40 (p. 94):
  sāmānya-nisthā vividhā visesāḥ padam visesântara-pakṣapāti |
  antar-viśesântara-vrttito 'nyat samāna-bhāvam nayate višesam ||
80 Cf. NKC p. 423.3-5: kasya kena vyäpti iti, tatra yasya yena avyabhicārah tasya tena
 vyāptih, sāmānya-viśesavataś ca dhūmâdeh sāmānya-viśesavatâgny-ādinâvyabhicārāt
tasva tenaîva vyāptih.
81 Both the criticism of bhūyo-darśana and the discussion of how vyāpti is cognised is
found in NKC p. 429.9-434.11 ad/LT 2.11.
82 Cf. e.g. NKC p. 429.19–20 ad LT 2.11: kiñ ca pratyakşa-mātram bhūyo-darśana-
sahāyam anvaya-vyatireka-sahakrtam vā pratyaksam vyāpti-grahanam prabhavet?
na..., and NKC p. 431.12 ff. ad LT 2.11: etena bhūvo-dṛṣtânvaya ity-ādi
pratyuktam ...
83 Cf. e.g. NKC p. 433.16 ff.
<sup>84</sup> To establish a first-level inference we have to establish the vyāpti, for which we
would require a second-level inference, for the vyāpti of which to establish we would
require a third-level inference, etc. Cf. NKC ad loc. (p. 433.21-22): sarvatra ity-ādi.
sarvatra prathamânumānavat dvitīve 'py anumāne avišesāt. Very similar
argumentation is found in NAV 1.19: pratyaksânumānayoś ca prāmānyam kuta iti
 cintyam. na tāvat pratyaksāt ...
 85 LT 2.11cd-12ab (p. 426):
  avikalpa-dhiyā lingam na kiñcit sampratīyate |
   nânumānād asiddhatvāt pramānântaram āñjasam ||
 Vivṛtiḥ: na hi pratyakṣam "yāvān kaścid dhūmah kālânttare deśântare ca pāvakasáva
 kāryam nârthāntarasya" iti iyato vyāpārān karum samartham sannihita-visaya-
 balôtpatter avicārakatvāt. nāpy anumānântaram, sarvatrāvisesāt. na hi sākalyena
 lineasva lineinā vyāpter asiddhau kvacit kiñcid anumānam nāma. "tan na apratyakṣam
 anumāna-vvatiriktam pramānam" ity ayuktam; linga-pratipatteh pramānantarāt.
 Prabhācandra explains at an earlier portion of NKC p. 418.14-419.2 ad loc. (LT 2.10):
 kah punar ayam tarko nāma iti cet? vyāpti-jñānam. vyāptir hi sādhya-sādhanayor
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avinábhāvah. tad-grāhi jñānam tarko bhidhīyate, tatra tasyaîva pramānyāt (tecte: prāmānyāt), jñānántarānām tad-grahane sāmārthyásambhavatah tatra

prāmānyānupapatteh.— What is it what you call suppositional knowledge? This is the cognition of the invariable concomitance. For the invariable concomitance is the

inseparable connection of the inferable property (sādhya) and the logical reason. Such a cognition that grasps this [invariable concomitance] is called suppositional knowledge, because only this [suppositional knowledge] possesses cognitive validity as regards that [invariable concomitance], in so far as cognitive validity of other kinds of cognition is inexplicable as regards that [invariable concomitance], because [they are] have no efficacy to grasp that [invariable concomitance].'

86 Cf. NKC p. 434.9–10 ad LT 2.11: linga-pratipatteh avinâbhāya-pratipatteh tarkákyāyāh pramānântaratvād alingajāvisada-svabhāvatayā pramāna-dvayânantarbhūtatvāt. Akalanka follows the Canonical tradition subdivides paroksa into matijñāna, or sensuous cognition, and śruta-jñāna, which comprises testimony, inference etc., see LT 2.10 and LT 2.61 (p. 682):

tat pratyaksam paroksañ ca dvidhâvâtrânya-samvidām | antar-bhāvān na yujyante niyamāh parakalpitāh ||

The tradition of Siddhasena Mahāmati (and probably Pātrasvmin) differs from this tradition, see BALCEROWICZ (2001: xii).

87 See also NAV 1.19: tasmād anumānam abhilasatā gaty-antarābhāvāt tat-sambandhagrahana-pravanas tri-kāla-gocaro 'vyabhicāri vitarko 'bhyupagantavyah.-- 'Therefore. since there is no other logical alternative, anybody postulating inference should [also] accept suppositional knowledge, which is disposed towards grasping that relation, the domain of which are three times [and] which is undeviating.'

88 LT 2.49ab (p. 652.1-2): vyāptim sādhyena hetoh sphulayati na vinā cintayakatra arştih, sakalyenâşa tarko 'nadhigata-vişayah.

NAV 18.2: anvaya-vyatireka-grāhi-pratyakşânupalambhôttara-kāla-bhāvino

'vyabhicarita-tri-kāla-vyāpi-gocarasya mati-nibandhanasyôha-samjñitasya pramāṇântarasya sambandha-grāhitayêştatvāt.
90 NAV 1.13: ūho 'pi pratyakṣânumānâsamvedya-sādhyârthânyathânupapannatva-

laksana-linga-sambandha-grahana-pravanah pramanantaram,

91 NAT ad NAV 1.14.: upalambhânupalambha-nimittam vyāpti-jñānam ūhaḥ, yathédam asmin saty eva bhavati, asati na bhavaty evéti ca. Note that the same passage occurs in NKC, see n. 66; but there it is the formulation of avinabhava! ⁹² NKC, see p. 351, comp. n. 66.

93 NS 1.1.40: avijñāta-tattve 'rthe kāraņôpapattitas tattva-jñānārtham ūhas tarkaḥ. 94 NBh 1.1.1: tarko na pramāṇa-saṅgrhitah, tarko na pramāṇântaram, pramāṇānām anugrāhakas tatīva-jāānāya kalpate. tasyôdāharaṇam—kim idam janma kṛtakena hetunā nirvartvate āhosvid akrtakena athākasmikam iti? evam avijnāte 'rihe kāraņopapattyā ūhah pravartate—"yadi kṛtakena hetunā nirvartyate, hetücchedād upapanno 'yam janmôcchedah. athâkrtakena hetunā, tato hetűcchedasyáśakyatvād anupapanno janmôcchedah. athâkasmikam, ato 'kasmān nirvartyamānam na punar nivartsyatîti nirvrtti-karanam nôpapadyate, tena janmânucchedah" iti.

95 TSaP ad TSa 1386 (p. 409.12-14):

vinā sādhyād adrstasya drstānte hetutêsyate | parair mayā punar dharminy asambhūsnor vināmunā || arthâpatteś ca śābaryā bhaikṣavāc cânumānatah | anyad evânumānam no nara-simhavad isyate ||

The text in Embar Krishnamacharya's edition bhaiksavās should be emended as above, cf. PATHAK (1930: 156-7) and KUNST (1939: 26 n. 3).

⁹⁶ If we concern the latest proposal of evaluating the data, YDī is a much earlier work than any of the Jaina sources discussed in my paper: MEJOR (2000: 263): 'all that gives a solid basis for the lower limit of the Yukti-dipita at ca. 550 C.E., which is in agreement with the date proposed by FRAUWALLNER.', and MEJOR (2000: 273): 'In this case YD cannot be placed later than 600 C.E.'.

97 YDī (ad SKā.4) p. 73.7-18: sā [arthapattih] tu dvi-vidhā vyabhicārinī cávyabhicārini ca. ... yā tv avinābhāvini avyabhicārini yathā kesari-varāhavor upahvare sannipātam upalabhyôttara-kālam kevalam kesariņam varāha-vranānkitaśariram prayantam upalabhya pratipadyate jito varaha iti tad anumanam. katham. vasmāt kesari-varāhayor yau jaya-parājayau tayor avyabhicārī sambandhah. tatra yadā kesarino jayam upalabhyâvyabhicārinam itarasya parājayam pratipadyate kim anvat sväd rte 'numānāt. adhigatôbhaya-sambandhi-samudāyasya hi pratipattuh pratyaksi-bhūtanyatara-sambandhino yā sambandhy-antara-pratipattis tad anumanam ittham cârthapattir ato na tasmāt prthae bhavitum arhati.

98 PBh (2.12.2b.0) [260], p. 48-49: darśanârthād arthâpatthir virodhi eva. śravanād anumitânumānam.

99 Interestingly, Dharmottara (c. 740–800) seems (or pretends) not to know the notion of anvathânuvapatti, for he does not refer to it, at least not in NBT, even in the discussion of two forms of the examples in NB 3.28 ff. (= DhPr 3.26 ff.). A reference to it is made by Durvekamiśra (970–1030), commenting on NB 3.26 in DhPr p. 167.21-22.

100 Cf. BALCEROWICZ (2000: 33): 'In NA 20 Siddhasena maintains that *dryfanta* is not

an essential part of "syllogistic" reasoning, inasmuch as the relation of invariable concomitance (vyāpti) suffices to prove the thesis. This is a continuation of the "economical" trend in Indian logic—that starts with Vasubandhu and his Vāda-vidhāna and Vāda-vidhi—to limit the number of necessary members of the proof formula, to simplify the reasoning procedures and to make such procedures universally binding. without any need for further empirical justification than the premises themselves: NA 20: ...' (vide supra n. 25).

101 NAV 20.1: yadā sarvatra sādhyâvinābhāvinam hetum smarati pratipādyas, tadā pakṣe 'pi tam avabudhya katham sādhyam na pratipadyeta?

¹⁰² Cf. e.g. TSa 1368, 1371 p. 344, nn. 10, 25.

LTV tābhyām vinaiva eka-laksana-siddhih, n. 20.

103 Cf. NA 17.1: ete ca dve apy ekasmin sādhye prayoktavye' iti yo manyeta, tac chişyanârtham āhânyatarenâpi ... prayogasya ca sādhya-sādhanam phalam; tac ced ekenâva sidhyati, dvitīva-pravogah kevalam vaktur akausalam ācaksīta.— And in order to instruct someone who might maintain: "Both of these two together have to be pronounced with regard to one [and the same] probandum," [the author] says: "precisely in either way"... [T]he result of [either] pronouncement is the proof of the probandum. If this [probandum] is proved just by one [of these two ways of pronouncement], the pronouncement of the other one would only evince the ineptitude of the speaker, because it is purposeless.' Further, in NAV 18, we find an opinion that all we need for valid inference are two members: paksa and hetu. Prabhācandra refers to an interesting (hypothetical?) objection that if a person knows the context very well. he can understand the argument without stating the logical reason and only the thesis is enough, in other words, in certain circumstances it is enough to express the thesis only, not the hetu, see NKC p. 436.13-20; prayojanaprasādhakatvañ ca asiddham; pratipādva-pratipatti-visesasva tat-prasādhva-pravojanasva sadbhāvāt, pratipādvo hi kaścin manda-matih kaścit tivra-matih. tatra yo manda-matih na tasya prakṛtârthapratipatti-viśesah pratijñā-prayogam antarenôpapadyate, nâpi naiyāyikâdeh pañcâvayava-prayoge pratipanna-sankatasva [recte: sanketasva] amanda-mater api, tad-aprayoge tena nigraha-sthānâbhidhānāt, "hīnam anyatamenâpi nyūnam" [NS 5.2.12] iti-vacanāt. tīvra-mates tu tat-prayogam antarenâpi hetu-prayoga-mātrāt prakrtârtha-pratipatti-pratītes tasva vaivarthve hetu-pravogasvāpi vaivārthvam svāt, niścitâvipratāraka-purusa-vacanād "agnir atra" ity-ādi-pratijñā-prayoga-mātra-rūpād eva kasyacit prakrtârtha-pratipatti-darśanāt.— 'And it is not established that one does

104 Cf. NA 18:

not [have to] indicate [one's own] purpose [in argument], because a particular understanding of the [person] to be taught is the purpose of the matter to be indicated to him. For the [person] to be taught can be someone slow-witted or someone sharpwitted. Out of them, for the one who is slow-witted a particular understanding of the matter in question cannot be accomplished without the pronouncement of the thesis, neither [can this be accomplished] for someone who has understood the linguistic convention [governing] the pronouncement of the five-membered proof formula of the Naiyayika and others [and] who even is not slow-witted, because when the pronouncement of this [thesis is] not [made] thereby a the point of defeat can be announced, in compliance with NS 5.2.12: "[The proof formula] is deficient even when one of the [members] is missing." However, if for someone sharp-witted—who has acquired the understanding of the matter in question merely through the pronouncement of the logical reason, even without the pronouncement of this [thesis]—this [pronouncement of the thesis] were [considered] purposeless, then also the pronouncement of the logical reason would [have to] be [considered] purposeless, because it can be empirically observed that someone [may acquire] the understanding of the matter in question merely through the pronouncement of a person who has certain knowledge and who is not deceitful which has merely the form of the thesis 'There [on the hill] there is fire", or similar.' This opinion is subsequently rejected by Prabhācandra as follows. First, we have to state the thesis in order to show what our argument aims at (NKC p. 437.4-11); here Prabhācandra uses the analogy of an archer. well-known from NA 16 (vide supra, n. 107). Secondly, even if our argument can be understood by stating the thesis alone, we still have to formulate the logical reason as

sādhya-sādhanayor vyāptir yatra niścīyate-tarām/ sādharmyena sa drstântah sambandha-smaranān matah ||

- Such [a statement] in which the invariable concomitance between the probandum and the probans is determined in the best possible way because of the recollection of the relation is known as the example based on similarity.' 105 NAV 13.2: ... tadā hetu-pratipādanam eva kriyate, šesābhidhānasya śroty-

the rule that warrants the correctness of our reasoning (NKC p. 437.12-438.4).

samskārākāritayā nairarthakyād.—' the demonstration of the logical reason alone is carried out (sc. it suffices to mention solely the logical reason) because the explicit statement of the remaining [members of the proof formula]—inasmuch as they have the form of subliminal impressions in the hearer—is purposeless.'

106 NAV 13.2: evam manyate naîkah prakārah parārthânumānasya, kim tarhi yathā parasya sukhena prameya-pratitir bhavati tathā yatnatah pratyāyaniyah, tatra dasâvayavam sādhanam pratipādanôpāyah. tad yathā ... tadā hetu-pratipādanam eva kriyate, sesâbhidhānasya śrotr-samskārākāritayā nairarthakyāt.—'[The author] maintains that there is not [only] one variety of the inference for others, but also [that the cognoscible object] should be conveyed meticulously [to another person] in such a way so that the awareness of the cognoscible comes about easily [on the part] of the other person. For this [purpose], there is the ten-membered proof as the means of demonstration [of the cognoscible object], namely ... Then the demonstration of the logical reason alone is carried out (sc. it suffices to mention solely the logical reason) because the explicit statement of the remaining [members of the proof formula]inasmuch as they have the form of subliminal impressions in the hearer—is purposeless.' Comp. however PV (P) 3.27cd: vidusām vācyo hetur eva hi kevalah.-'Since for scholars simply the logical reason alone is to be stated.' ¹⁰⁷ NA 14cd-16:

tat-prayogo 'tra kartavyo hetor gocara-dipakah ||

anvathā vādy-abhipreta-hetu-gocara-mohinah | pratyävyasya bhayed dhetur viruddhârekito yathā || dhānuska-guna-sampreksi-janasya parividhyatah | dhānuskasva vinā laksva-nirdešena gunêtarau || The same idea is expressed in NKC p. 437.4-11.

ΑŚ

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NA NA H	==	Siddhasena Mahāmati: Nyāyāvatāra. See BALCEROWICZ (2001) Mahāvādi-śrī-Siddhasena-Divākara-pranīta-Nyāyāvatārah śrī-Rājasekharasūri-viracita-Ţippana-samalaṅkṛta-ācārya-Siddharṣi-viracita-Vivṛti-saḥitaḥ. Edited by Bhagavāndās Harakahchand), Hemācāndrācārya-Jaina-sabhā, Ahmedabad-Patan 1917.
NA V	==	Nyāyāvatāra of Siddhasena-Divākara with The Vivrti of Siddharsigani and with The Tippana of Devabhadra. Edited by P. L. Vaidya, Shri Jain Shwetamber Conference. Bombay 1928
NASV	=	[Reprinted: Vaishali Institute Research Bulletin 1 (1971) 1–95]. Šānti Sūri: Nyāyāvatāra-sūtra-vārttika. Nyāyāvatāra-sūtra-vārttika of Srī Šānti Sūri critically edited in Sanskrit with notes, indices etc. in Hindi [with the Vṛtn] by Paṇḍita Dalsukh Mālvaṇiya, published by Singhi Jain Sastra Šikshapitha, Bharatiya Vidya Bhavan, Bombay 1949.
NAŢ	=	Devabhadra: Nyāyāvatāra-tippana. See: NA.
NAV	=	Siddharsigani: Nyāyāvatāra-vivṛti. See: NA.

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NB	= Dharmakīrti: Nvāya-bindu. Nyāya-bindu-tīkā of Dharmottara
	with Nyāya-bindu of Dharmakirti. Edited by Th. Stcherbatsky, BB.7. [reprint: Biblio Verlag, Osnabrück 1970].
NBh	= Vātsyāyana Pakṣilasvāmin: <i>Nyāya-bhāṣya</i> . See: NS.
NBT	= Dharmottara: Nyāya-bindu-tikā. See: NB and DhPr.
NENNINGER 1992	= Nenninger, Claudius: Aus gutem Grund—Prasastanādas
	anumäna-Lehre und die drei Bedingungen des logischen
	Grundes. Philosophia Indica Einsichten-Ansichten Band 1, Dr.
	Inge Wezler (ed.), Verlag für Orientalistische
,	Fachpublikationen, Reinbek 1992.
NKC	= Prabhācandra: Nyāya-kumuda-candra. Nyāya-kumuda-candra oj
	Srimat Prabhācandrācarya. A Commentary on
	Bhaṭṭākalaṅkadeva 's Laghīyastraya. Edited by Mahendra Kumar Nyāyācarya Śāstri, Vol. 1-2, Sri Garib Dass Oriental
	Series 121, Sri Satguru Publications, Delhi 1991, [1 st ed.
	Bombay 1938–1942].
NP	= Sankarasvāmin: <i>Nyāya-praveśa</i> . (1) 'Part One: The <i>Nyāya</i> -
	pravesa—Sanskrit Text with Commentaries' ed. by A. B.
	Dhruva, Oriental Institute, Baroda 1930; 'Part Two: Nyāva-
	praveśa of Ācārya Dinnāga—Tibetan Text' ed. by
	Vidushekhara Bhattacharyya, Oriental Institute—Central
	Library, Baroda 1927. (2) Piotr Balcerowicz: 'Śankarasvāmin:
	Library, Baroda 1927. (2) Piotr Balcerowicz: 'Śankarasvāmin: <i>Nyāya-praveśa</i> —"Wprowadzenie w logikę" ("Introduction to
	Logic"). Part One: 1. Polish Translation, 11. Sanskrit Text,
	III. Notes § I, Abbreviations and Bibliography. Studia
NRĀ	Indologiczne (Warsaw) 2 (1995) 39–87.
NKA NS	= Pārthasārathi Miśra: <i>Nyāya-ratnākara</i> . See: MŚV.
No	= Akṣapāda Gautama: Nyāya-sūtra. Mahāmuni Vātsyāyan's
	<i>Nyāya-bhāṣya on Gautama-Nyāya-sutras With Prasannapadā Commentary of Pt. Sudarśanācārya Shastrī</i> , ed. Dvārikādās
	Sāstrī, SS 10, Sudhī Prakāśanam, Vārāṇasī 1986.
PĀ (J)	= Māṇikyanandin: Parīkṣâmukha-sūtra. Prameyaratnamālā of
	Laghu Anantavīrya, A Commentary on Parīkṣamukha Sūtra.
	Edited by Hira Lal Jain, Chowkhamba Vidyabhawan, Varanasi
	1964.
PĀ (V)	 Māṇikyanandin: Parīkṣâmukha-sūtra. Parīkṣâmukha-sūtra of
	Mānikya Nandi together with the Commentary Called
	Pariksâmukha-lagu-vṛtti of Ananta Vīrya, ed. by Satis Chandra
DT	Vidyābhūṣaṇa, B/No. 1209, Calcutta 1909.
PĀLV	= Ananta Vīrya: Parīksâmukha-lagu-vṛtti. See: PA.
Ратнак 1930	= K.B. Pathak: 'Śāntarakṣita's reference to Kumārila's Attacks on
	Samantabhadra and Akalankadeva', Annals of the Bhandarkar
Ратнак 1930-31	Oriental Research Institute (Poona) 11 (1930) 155-164. = K.B. Pathak: 'Dharmakīrti's Trilakşanahetu attacked by
1 ATTIAK 1750-51	Pātrakesari and defended by Śāntarakṣita', Annals of the
	Bhandarkar Oriental Research Institute (Poona) 12 (1930–31)
	71–83.
PBh	= <i>Praśastapāda-bhāṣya</i> of Praśastapāda, Bronkhorst, Johannes
	and Ramseier, Yves: Word index to the Prasastapādabhāsya: a
	complete word index to the printed editions of the
	Praśastapādabhāṣya, Motilal Banarsidass, Delhi 1994.

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PMī	Hemacandra: <i>Pramāṇa-mimāmsā</i> . Edited and translated by Satkari Mookerjee and Nathmal Tatia, Tara Publications, Varanasi 1970.	
PNT	Devasūri Vādin: <i>Pramāṇa-naya-tattvālokālankāra</i> . Edited Hari Satya Bhattacharya, Bombay 1967.	by
PS	Dinnāga: Pramāṇa-samuccaya. (1) Chapter I, şee: HATTOR 1968. (2) The Tibetan Tripitaka—Peking Edition, ed. Daise Suzuki, Tibetan Tripitaka Research Institute, Tokyo—Kyot 1957—Bstan-hgyur, Mdo-hgrel, Gian-Tshogs Rig-pa I, Vo 130, No.5700.	etz T.
PV (P)	The Pramāna-vārttikam of Ācārya Dharmakīrti with Sub- commentaries: Svôpajña-vṛtti of the Author and Pramāṇa- vārttika-vṛtti of Manorathanandin. Edited by Prof. Dr. Ram Chandra Pandeya, Motilal Banarsidass, Delhi 1989.	ı
PV (S)	Dharmakīrti: <i>Pramāṇa-vārttika</i> . Rāhula Sānkṛtyāyana (ed.) 'Pramāṇavārttikam by Ācārya Dharmakīrti'. Appendix to Journal of the Bihar and Orissa Research Society 24 (1938 Parts I-II: 1-123.	
PVA	Prajñākaragupta: Pramāṇa-vārttikâlaṅkāra. Rāhula Sāṅkṭtyāyana (ed.): Pramāṇavārttikabhāṣyam or Vārtikālaṅkāraḥ of Prajñākaragupta. (Being a commentar) Dharmakirti 'sh Pramāṇavārtikam). Kashi Prasad Jayaswal Research Institute, Patna 1953.	v on
PVin II	Dharmakīrti s Pramāṇāviniscayaḥ, 2. Kapitel: Svārthānumānaṁ. Tib. Text und Sanskrittexte von E. Steinkellner. Veröffentlichungen der Kommission für Spraund Kulturen Süd- und Ostasiens 12, Österreichische Akad der Wissenschaften, Wien 1973.	
PVSV	Dharmakīrti: Pramāṇa-vārttika-svôpajña-vṛtti. See: PV (P)	i.
PVV	Manorathanandin: <i>Pramāṇa-vārttika-vṛtti</i> . See: PV (P) and PV (S)	
STEINKELLNER-MUCH 1995	Steinkellner, Ernst; Much, Michael Torsten: Texte der erkenntnistheoretischen Schule des Buddhismus—Systemati Übersicht über die buddhistische Sanskrit-Literatur II, Abhandlungen der Akademie der Wissenschaften in Göttin Philologisch-Historische Klasse, Dritte Folge Nr. 214, Vandenhoeck & Ruprecht, Göttingen 1995.	
STP	Siddhasena Divākara: Sammati-tarka-prakaraņa with Abhayadevasūri's Tattva-bodha-vidhāyini. Edited by Sukhi Sanghavi and Becardās Dośi; Vol. I & II, RBTS VI-1,2; K 1984. [Reprinted from the original edition published in 5 w Gujarāi-purā-tattva-mandir-granthāvalī 10, 16, 18, 19, 21, Gujarāt-purā-tattva-mandir, Amdāvād, 1924—1931].	yoto ols.,
SUKHLAL-DOSHI 1928		

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SVR	Vādideva-sūri: Syād-vāda-ratnākara. Motīlāl Lālājī (ed.): Srīmad-Vādideva-sūri-viracitah Pramāņa-naya- tattvālokātarāh tad-vyākhyā ca Syād-vāda-ratnākarah. 5 Vols. Poona 1926-01300. [Reprinted: Vol. 1 & 2, Bhāratīya Buk
ŚBh	Kārporeśan, Dillī 1988.] = Sabarasvāmin: Śabara-bhāgņa. Edited by Yudhişthira Mīmārinsaka. Vols. 1-6, Śrī Śantisvarūp Kapūr, Rāmalāl Kapūr Trust Press, Bahālgaḍh Sonīpat-Haryāņā I: 1987, II: 1990, III: 1980, IV: 1985, V: 1990.
TBV	= Abhayadevasūri: Tattva-bodha-vidhāyinī. Sammati-tarka- prakarana by Siddhasena Divākara with Abhayadevasūri's Commentary, Tattva-bodha-vidhāyinī. Edited by Sukhlāl Sanghavi and Becardās Dosi; Vol. 1 & II, RBTS VI-1,2; Kyoto 1984 [Reprinted from the original edition published in 5 vols., Gujarāt-purā-tatīva-mandir-granthāvalī 10, 16, 18, 19, 21, Gujarāt-purā-tatīva-mandir, Amdāvād, 1924—1931].
TS	= Umāsvāmin: Tattvârtha-sūtra. Edited together with Tattvârthâdhigama-bhāṣya by M.K. Mody, the Asiatic Society, Bibliotheca Indica 1044, Calcutta 1903-5.
TSa	= Śāntarakṣita: Tattva-sangraha. (1) together with Kamalaśīla's Panjijkā. Edited by Embar Krishnamacharya with a Foreword by B. Bhattacharyya, 2 vols., Gaekwad's Oriental Series 30–31, Baroda 1926. [Reprinted: 1984]. (2) Edited by Svāmī Dvārikādāsa Śāstri, BBS Vol. I, Vārāņasī 1968. (3) Trans. into English by Ganganatha Jha, 2 Vols., GOS 80,83, Baroda 1937,1939.
TSaP TŚ	 Kamalaśīla: Tattva-saṅgraha-pañjikā. See: TSa (1). Tarka-śātra. in: Giuseppe Tucci: Pre-Dinnāga Buddhist Texts on Logic from Chinese Sources. Oriental Institute, Baroda 1929.
TŚVA	Vidyānanda Pātrakesarisvāmin: Tatrvārtha-sioka- vārritālamkara. Edited by Manoharalāl, Ramacandra Nātha Rangaji, Bombay 1918.
UNO 1993	= Uno, Atsushi: 'Vyāpti in Jainism', in: Wagle, N.K.; Watanabe, F (eds.): Studies on Buddhism in Honour of Professor A.K. Warder. University of Toronto, Centre for South Asian Studies, Toronto 1993.
UPADHYE 1971	= Upadhye, A. N.: Siddhasena Divākara's Nyāyāvatāra (edited by the late S.C. Vidyabhusan with English Translation, Notes etc.) and with the Vivṛti of Siddharṣi as well as The Text of 21 Dvātrimṣikās and the Sammai-suttam; Vinayavijaya's Nayakarnikā edited by with an Introduction, Bibliographic Review, Indices etc.; Jaina Sāhitya Vikāsa Mandala, Bombay 1971.
VāVa VāVi VP	 Vasubandhu: Vāda-vidhāna. See: FRAUWALLNER 1933. Vasubandhu: Vāda-vidhi. See: FRAUWALLNER 1957. Bhartrhari: Vākya-padīya. Walter Rau (ed.): Bhartrharis Vākyapadīya. Die Mūlakārikās nach den Handschriften herausgegeben und mit einem Pāda-Index versehen. Abhandlungen für die Kunde des Morgenlandes XLII, 4. Franz Steiner Verlag, Wiesbaden 1977.

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WEZLER 1984	Wezler, Albrecht: 'On the Quadruple Division of the Yogasāstra, the Caturvyūhatva of the Cikitsāsāstra and the «Four noble truths» of the Buddha', in Indologica Taurinensia 12 (1984) 289-337.
YA	Samantabhadra: Yukty-anuśasana. With the Tikā of Vidyānandācārya; ed. Indra Lāi, Mānik Chandra Digambara Jaina Grantha-māla, Bombay 1921 (Sam.: 1977).
YAT	= Vidyānanda: Yukty-anuśāsana-tīkā. See: YA.
YDī	Yukti-dipikā—The Most Significant Commentary on the Sāmkhyakārikā. Edited by Albrecht Wezler and Shujun Motegi, Vol. 1, Alt- und Neu-Indische Studien 44, Franz Steiner Verlag, Stuttgart 1998.
YS	Patañjali: Yoga-sūtra. Yogasūtra of Patañjali with the Scholium of Vyāsa and the Commentary of Vācaspatimiśra, ed. by Rajaram Shastri Bodas, Revised and Enlarged by the Addition of the Commentary of Nāgojī Bhaṭṭa by Vasudev Shastri Abhyankar, Bombay Sanskrit and Prakrit Series 46, Bombay 1917.

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