Implications of the Buddhist-Jaina dispute over the fallacious example
in *Nyāya-bindu* and *Nyāyâvatāra-vivṛti*[*]

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From the times of Aristotle, to whom the idea seemed so obvious and natural that he eventually failed to spare anywhere in his voluminous oeuvre even a single word of explanation on it, and of Alexander, his commentator, who was the first to point out its significance explicitly,[1] the benefits of symbolic expressions in logic[2], or formal logic to be more precise, have not been questioned seriously by any sane student ever since. It has been unanimously determined that the predominant idea underlying the usage of symbols in logic lies in the desire, first, to make the student 'aware, that the validity of the processes of analysis does not depend upon the interpretation of the symbols which are employed, but solely upon the laws of their combination',[3] and, secondly, to render 'every logical proposition, whether categorical or hypothetical, … capable of exact and rigorous expression',[4] not to mention certain amount of intellectual gratification derived from 'the symmetry of their analytical expression, … harmony and consistency'[5], notwithstanding the simple fact that 'in the beginning … the use of letters is a mystery, which seems to have no purpose except mystification'[6]. The distinct advantage of the first two requirements, i.e. the recognition of class and general notion as a universal point of reference and univocality in the use of names, that jointly enable us to arrive autonomously at specific universally applicable, contents- and context-independent 'elementary laws of thought'[7] and draw valid conclusions autonomously with reference to the contents of premisses, was recognised relatively early by Alexander: 'In the discipline [of logic], letters are used in order to make us aware, that conclusion does not depend on contents, but on [syllogistic] figures, on relation of premisses and on [syllogistic] modes, because it is not the very contents that is important for syllogistic inference, but the arrangement itself. Accordingly, letters are employed [to represent] general notions and to show, that conclusion will always follow and from any assumption'[8].

Two additional considerations that are taken for granted to speak in favour of the method resting upon the employment of symbols in formal logic were added in one breath at the moment of formulating the first theory to represent formal logic with the help of symbolic means that remain at the disposal of algebra, the result of which is symbolic logic, or mathematical logic or logistic: the need for a necessary instrument, or methods, or 'aids' (or, to intimate the name of the 'symbolic culprit' anew, τὸ ὄργανον) to facilitate the progress of scientific discovery, on the one hand, and, on the other, the demand of the discipline of the intellect[9].

Our list of benefits can be further extended with two more features, i.e. that of concision and manageability as well as amenability to and capability of expressing abstract concepts absent from natural language.[10] Every student of philosophic Sanskrit knows how indefinite or imprecise—and logically unsatisfactory—the conjunctions *ca* or *vā* (especially in negated sentences) in the natural language can be, how their meaning in certain contexts may overlap and how much intuitive their interpretation sometimes is. Conspicuous examples are furnished, for instance, by the problem of *catuṣ-koṭi*, wherein the first hemstich of one of its formulations *nâiva svataḥ prasiddhir na parasparataḥ para-pramāṇair vā*[11] could t h e o r e t i c a l l y be represented in a number of ways (*p* stands for *svataḥ prasiddhir*, *q* for *parasparataḥ prasiddhir*, and *r* for *para-pramāṇair prasiddhir*): (1) $\sim p \wedge \sim q \vee r$, (2) $\sim p \vee \sim q \vee r$, (3) $\sim p \wedge \sim q \vee \sim r$, (4) $\sim p \vee \sim q \vee \sim r$, (5) $\sim p \wedge \sim(q \vee r)$ or (6) $\sim p \vee \sim(q \vee r)$ etc., but it is the

reader who intensionally interprets it not as an alternative (the usual meaning of *vā*) but as a disjunction (7) $\sim p \wedge \sim q \wedge \sim r$. The inadequacy of, say, such ambiguous words as 'and' or 'or', or its equivalents, to express certain abstract relations, that are not present in the natural language but are easily definable with the help of truth tables (1110, 0111 and 0110) in the two-value logic and can be represented with symbols ($p|q$, $p \vee q$, p,q), is well-known[12].

Having said that, could such a symbolic and formalised language have any drawback? Apart from the above-quoted remark uttered jokingly by Bertrand RUSSELL, two crucial disadvantages can be seen in the way any formalised language, alongside symbols as its corollaries, operates 'at the expense, where necessary, of brevity and facility of communication'[13].

But there is one more to be mentioned, of extralogical consequence and of sociological import. However, before I come to speak of it, let us consider what actually happens when, say, Dharmakīrti avails himself of examples of proof formulas or of the fallacies of proof formula? Notoriously, Indian logicians did not use symbols in the proper sense. In which sense does he then use sentences that stand for proof formulas? While formulating an inference for others, does he refer to a particular situation or does he articulate general rules? The question indeed seems rather trivial. A good example of a reasoning of universal denotation is the one provided by Dharmakīrti: 'Thus is the formulation of the logical reason based on [essential] identity: whatever is existent, is without exception impermanent, for instance the pot—this is the simple (unqualified) formulation of the logical reason based on [essential] identity,'[14] with the thesis and the logical reason having most broadly conceivable universal reference: *sarvam anityam, sattvāt* ('everything is impermanent, because it is existent')[15]. But we have countless instances when Dharmakīrti, and Indian logicians in general, draws inference with regard to a very particular situation ('here, on this particular spot') following a general rule of invariable concomitance, e.g.: 'The formulation of the logical reason based on effect is [as follows]: wherever there is smoke, there is fire, for instance in the kitchen, etc. And there is smoke here, [*hence there is fire here],'[16] where the implies thesis (or conclusion) *astîhâgniḥ* ('there is fire here') pertains to an individual case.[17]

But even then, in both above cases these formulations instantiate only some ideal patterns, or semi-symbolic formulas, even though no symbolic expressions occur in the formulations. That is clear from Dharmakīrti's commentary itself, when the general rule is first stated and than instantiated, or applied to a particular case, e.g.: 'If *x*-s are observed, *y*—characterised by (i.e. dependent on) these (*x*-s) [previously] unobserved—is observed, and [*y*] is not observed, even if one of *x*-s is absent, [then] *y* is the effect of *x*; and [in this case] this [effect] is smoke.'[18]

Clearly, Dharmakīrti—and Indian logicians in general—does not use symbols; however, particular terms such as *ghaṭa, ākāśa, paramâṇu, śabda*, etc., stand for certain classes of objects, e.g. the class of material perceptible things (*mūrta = pratyakṣâdy-anupalabdha*), the class of imperceptible things (*amūrta*), the class of produced things (*kṛtaka*), etc. His formulations are 'replaceable', viz. stand for general symbols, and the actual contents of a proposition is rather secondary; being of exemplary, illustrative character and its meaning is hardly of any relevance. However, their meaning is not entirely irrelevant: such semi-variables, e.g. *ghaṭa*, that occur in proof formulas denote a particular class, e.g. either the class of material perceptible things (*mūrta*) or the class of produced things (*kṛtaka*), and its particular denotation range is determined by the context. Thus, intensional logic possesses some indistinct aspects of extensionality.

A good exemplification of this is furnished by a comparison of two varieties of the fallacious example found in Śaṅkarasvāmin's *Nyāya-praveśa* (NP) and in Dharmakīrti's *Nyāya-bindu* (NB). The former avails himself of one and the same sentence word for word (*nityaḥ śabdo 'mūrtatvāt paramâṇuvat*) to exemplify two different kinds of *dṛṣṭântâbhāsa*, viz. of *sādhana-dharmâsiddha* (of the *sādharmya* type) and *sādhyâvyāvṛtta* (of the *vaidharmya* type), the only

difference being in stating the invariable concomitance (*vyāpti*) either in the positive manner (*yad amūrtaṁ tan nityaṁ dṛṣṭaṁ*—'whatever is imperceptible is experienced to be permanent') or negative manner (*yad anityaṁ tan mūrtaṁ dṛṣṭaṁ*—'whatever is impermanent is experienced to be perceptible').[19] However, Dharmakīrti, in explicating two divisions of the fallacious example, viz. *sādhya-vikala* and *sādhyâvyatirekin*, that correspond to Śaṅkarasvāmin's *sādhana-dharmâsiddha* and *sādhyâvyāvṛtta* respectively, employs partly the same sentence, but changes the essential element in the reasoning: the statement of the object that serves as an example. The result is that we have two different examples that can be interchanged ([S1] *karmavat* and [V1] *paramâṇuvat*).[20]

I have expressed above the conviction that the actual contents of a proposition *is rather secondary* instead of saying it is *of no relevance*, inasmuch as the contents of a proposition is indeed entirely irrelevant structurally to the way a proof formula is formulated (its role is to exemplify certain ontological and logical relations), but, on the other hand, it does play certain role, since it conveys some ideas, being formulated with verbal means. I agree, all these remarks are perhaps not particularly original and are, at least intuitively, taken for granted by every student of Indian epistemology. Why, then, am I saying all this? To repeat my previous question: is there, thus, any advantage in using no symbols? Apparently there is, though it is not of logical nature, and I shall try to demonstrate this on the following pages.

As it is well known to the student of Buddhist thought, in the third chapter of *Nyāya-bindu* we come across Dharmakīrti's exposition of nine fallacies of the example based on similarity (*sādharmya-dṛṣṭântâbhāsa*) as well as the complementary nine-fold division of the fallacy of the example based on dissimilarity (*vaidharmya-dṛṣṭântâbhāsa*). Further, within both nine-fold divisions of fallacious examples we can observe that each of them can be naturally divided into three sub-classes of three structurally similar elements. Accordingly, the complete enumeration runs as follows:

[S] fallacious examples based on similarity (*sādharmya-dṛṣṭântâbhāsa*):

    [SA] lacking *x*:

        [S1] the fallacious example lacking the probandum (*sādhya-vikala*),

        [S2] the fallacious example lacking the probans (*sādhana-vikala*),

        [S3] the fallacious example lacking both the probandum and the probans (*sādhya-sādhana-vikala*),

    [SB] in which the property of *x* is doubtful:

        [S4] the fallacious example in which the property of the probandum is doubtful (*sandigdha-sādhya-dharma*),

        [S5] the fallacious example in which the property of the probans is doubtful (*sandigdha-sādhana-dharma*),

        [S6] the fallacious example in which the property of the probandum and the probans is doubtful (*sandigdha-sādhya-sādhana-dharma*),

    [SC] with positive concomitance characterised by *x*:

        [S7] the fallacious example without positive concomitance (*ananvaya*),

        [S8] the fallacious example with unindicated positive concomitance (*apradarśitânvaya*),

        [S9] the fallacious example with inverted positive concomitance (*viparītânvaya*);

[V] fallacious examples based on dissimilarity (*vaidharmya-dṛṣṭântâbhāsa*):

    [VA] lacking negative concomitance with *x*:

        [V1] the fallacious example lacking negative concomitance with the probandum (*sādhyâvyatirekin*),

        [V2] the fallacious example lacking negative concomitance with the probans (*sādhanâvyatirekin*),

[V3] the fallacious example lacking negative concomitance with the probandum and the probans (*sādhya-sādhanâvyatirekin*),

[VB] in which negative concomitance with *x* is doubtful:

[V4] the fallacious example in which negative concomitance with the probandum is doubtful (*sandigdha-sādhya-vyatireka*),

[V5] the fallacious example in which negative concomitance with the probans is doubtful (*sandigdha-sādhana-vyatireka*),

[V6] the fallacious example in which negative concomitance both with the probandum and with the probans is doubtful (*sandigdha-sādhya-sādhana-vyatireka*),

[VC] with negative concomitance characterised by *x*:

[V7] the fallacious example without negative concomitance (*avyatireka*),

[V8] the fallacious example with unindicated negative concomitance (*apradarśita-vyatireka*),

[V9] the fallacious example with inverted negative concomitance (*viparīta-vyatireka*).[21]

Noteworthy is the fact that Dharmakīrti's typology, along with illustrations for each of the entries, is followed in each and every detail—with a few exceptions—in the classification found in Siddharṣigaṇi's *Nyāyâvatāra-vivṛti* (NAV)—a Jaina epistemic treatise, the significance of which exceeds perhaps even the philosophic import of the *Nyāyâvatāra* aphorisms, despite the subservient function it was predestined to perform, being a commentary thereupon. The juxtaposition presented in two tables below will clearly show such a dependence. I have single-underlined phrases found in NB that are basically identical with NAV. I have *double-underlined* the portions that can be either reconstructed on the basis of NB or NBṬ or supplied from corresponding sections of NAV. I use a broken underline to mark synonymous (but not identical) expressions in NB and NAV.

TABLE I: *sādharmya-dṛṣṭāntābhāsa*

#	variety of the fallacious example	*Nyāya-bindu* of Dharmakīrti	*Nyāyāvatāra-vivṛti* (on NA 24) of Siddharṣigaṇi
[S1]	*sādhya-vikala* lacking the probandum	*nityaḥ śabdo 'mūrtatvāt, karmavat* (NB 3.124) — Speech element is impermanent, because it is imperceptible, like action.	*bhrāntam anumānaṁ, pramāṇatvāt, pratyakṣavat* — Inference is erroneous, because it is a cognitive criterion, like perception.
[S2]	*sādhana-vikala* lacking the probans	*nityaḥ śabdo 'mūrtatvāt, paramāṇuvat* (NB 3.124) — Speech element is impermanent, because it is imperceptible, like infinitesimal atom.	*jāgrat-saṁvedanam bhrāntaṁ, pramāṇatvāt, svapna-saṁvedanavat* — The sensation of a person in the waking state is erroneous, because it is a cognitive criterion, like the sensation in dream.
[S3]	*sādhya-sādhana-vikala* lacking both the probandum and the probans	*nityaḥ śabdo 'mūrtatvād, ghaṭavat* (NB 3.124) — Speech element is impermanent, because it is imperceptible, like pot.	*nāsti sarva-jñaḥ, pratyakṣādy-anupalabdhatvād, ghaṭavat* — There is no omniscient person (sc. omniscient person is non-existent), because he is not comprehended through perception, etc., like pot.
[S4]	*sandigdha-sādhya-dharma* in which the property of the probandum is doubtful	*rāgādimān ayaṁ vacanād rathyā-puruṣavat* (NB 3.125) — This [particular person] is endowed with passion, because he speaks, like a person in the street.	*vīta-rāgo 'yaṁ, maraṇa-dharmatvād, rathyā-puruṣavat* — This [particular person] is dispassionate, because he is mortal, like a person in the street.
[S5]	*sandigdha-sādhana-dharma* in which the property of the probans is doubtful	*maraṇa-dharmāyaṁ puruṣo rāgādimattvād, rathyā-puruṣavat* (NB 3.125) — This particular person is mortal, because he is endowed with passion, like a person in the street.	*maraṇa-dharmāyaṁ puruṣo, rāgādimattvād, rathyā-puruṣavat* — This particular person is mortal, because he is passionate, like a person in the street.
[S6]	*sandigdha-sādhya-sādhana-dharma* in which the property of the probandum and the probans is doubtful	*asarva-jño 'yaṁ rāgādimattvād, rathyā-puruṣavat* (NB 3.125) — This [particular person] is not omniscient, because he is endowed with passion, like a person in the street.	*asarva-jño 'yaṁ, rāgādimattvād, rathyā-puruṣavat* — This [particular person] is not omniscient, because he is passionate, like a person in the street.
[S7]	*ananvaya* without positive concomitance	[*_rāgādimān ayaṁ, vaktṛtvād,_[22]] *yathā yo vaktā sa rāgādimān, iṣṭa-puruṣavat* (NB 3.126) — [This particular person is endowed with passion, because he is a speaker (sc. talks),] for instance whoever is a speaker is endowed with passion, like any selected person.	*rāgādimān vivakṣitaḥ puruṣo, vaktṛtvād, iṣṭa-puruṣavat* — A particular person in question is dispassionate, because he is a speaker (sc. talks), like any selected person.
[S8]	*apradarśitānvaya* with unindicated positive concomitance	*anityaḥ śabdaḥ, kṛtakatvād ghaṭavat* (NB 3.126) — Speech element is impermanent, because it is produced, like pot.	*anityaḥ śabdaḥ, kṛtakatvād, ghaṭavat* — Speech element is impermanent, because it is produced, like pot.
[S9]	*viparītānvaya* with inverted positive concomitance	[*_anityaḥ śabdaḥ, kṛtakatvād,_] *yad anityaṁ tat kṛtakam* [*_ghaṭavat_[25]] (NB 3.127) — [Speech element is impermanent, because it is produced;] whatever is impermanent is produced, [like pot].	*anityaḥ śabdaḥ, kṛtakatvād, … yad anityaṁ tat kṛtakam ghaṭavat* — Speech element is impermanent, because it is produced; … whatever is impermanent is produced, like pot.

TABLE II: *vaidharmya-dṛṣṭântâbhāsa*

#	variety	*Nyāya-bindu*	*Nyāyâvatāra-vivṛti* (on NA 25) of Siddharṣigaṇi
[V1]	*sādhyâvyatirekin* — lacking negative concomitance with the probandum	[*nityaḥ śabdo 'mūrtatvāt,*[24]] *paramâṇuvat* (NB 3.129) [Speech element is impermanent, because it is imperceptible,] l i k e i n f i n i t e s i m a l a t o m .	*bhrāntam anumānam, pramāṇatvāt; ... yat punar bhrāntaṁ na bhavati na tat pramāṇaṁ, tad yathā svapna-jñānam* Inference is erroneous, because it is a cognitive criterion, ... whatever is not erroneous, however, is not a cognitive criterion, l i k e c o g n i t i o n i n d r e a m .
[V2]	*sādhanâvyatirekin* — lacking negative concomitance with the probans	[*nityaḥ śabdo 'mūrtatvāt,*[25]] *karmavat* (NB 3.129) Speech element is impermanent, because it is imperceptible, l i k e a c t i o n .	*nirvikalpakaṁ pratyakṣam, pramāṇatvāt; ... yat punaḥ savikalpakam na tat pramāṇam, tad yathânumānam* Perception is non-conceptual, because it is a cognitive criterion, ... whatever is accompanied by a conceptualisation, however, is not a cognitive criterion, l i k e i n f e r e n c e .
[V3]	*sādhya-sādhanâvyatirekin* — lacking negative concomitance with the probandum and the probans	[*nityaḥ śabdo 'mūrtatvāt,*[26]] *ākāśavat* (NB 3.129) Speech element is permanent, because it is imperceptible, l i k e s p a c e .	*nityânityaḥ śabdaḥ, sattvāt; ... yaḥ punar na nityânityaḥ sa na san, tad yathā ghaṭaḥ* The speech element is [both] permanent and impermanent, because it is existent, ... whatever is not [both] permanent and impermanent, however, is not existent, l i k e a p o t .
[V4]	*sandigdha-sādhya-vyatireka*	*asarva-jñāḥ kapilâdayo 'nâptā vā, avidyamāna-sarva-jñatâptatā-liṅga-bhūta-pramāṇâtiśaya-śāsanatvāt; ... yaḥ sarva-jña āpto vā sa jyotir-jñānâdikam upadiṣṭavān. yathā—ṛṣabha-vardhamânâdir iti* (NB 3.130) Kapila and others are neither omniscient nor authoritative persons, because [their] teaching is the best cognitive criterion as the proof that they have no omniscience or authority, ... whoever is an omniscient or an authoritative person, he teaches astrology, etc., l i k e R ṣ a b h a , V a r d h a m ā n a a n d o t h e r [J i n a s] .	*asarva-jñā anâptā vā kapilâdayo, ārya-satya-catuṣṭayâpratipādakatvāt; ... yaḥ punaḥ sarva-jña āpto vā 'sāv ārya-satya-catuṣṭayaṁ pratyapīpadat, tad yathā śauddhôdaniḥ* Kapila and others are neither omniscient nor authoritative persons, because they do not teach the four noble truths, ... whoever is an omniscient and an authoritative person, however, he teaches the four noble truths, l i k e t h e B u d d h a .

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		Nyāyâvatāra-vivṛti	*Nyāya-bindu*
[V5]	*sandigdha-sādhana-vyatireka* in which negative concomitance with the probandum is doubtful	*anādeya-vākyaḥ kaścid vivakṣitaḥ puruṣo rāgâdimattvāt; … yaḥ punar ādeya-vākyo, na sa rāgâdimāṃs, tad yathā sugataḥ* A particular person in question is untrustworthy, because he is endowed with passion, etc., … whoever is trustworthy, however, is not endowed with passion, etc., l i k e t h e B u d d h a .	*na trayīvidā brāhmaṇena grāhya-vacanaḥ kaścit vivakṣitaḥ puruṣo rāgâdimattvāt; … ye grāhya-vacanā na te rāgâdimantaḥ, tad yathā gautamâdayo dharma-śāstrāṇāṃ praṇetāraḥ* (NB 3.131) A particular person in question is not such whose statements could be trusted by a Brahmin learned in the three Vedas, because he is endowed with passion, etc., … those whose statements can be trusted are not endowed with passion, etc., l i k e G a u t a m a a n d o t h e r s , w h o a r e p r o m u l g a t o r s o f D h a r m a - ś ā s t r a .
[V6]	*sandigdha-sādhya-sādhana-vyatireka* in which negative concomitance both with the probandum and with the probans is doubtful	*na vīta-rāgāḥ kapilâdayaḥ, karuṇâspadeṣv apy akaruṇâparita-cittatayâdatta-nijaka-māṃsa-śakalatvāt; … ye punar vīta-rāgās te karuṇâspadeṣu karuṇā-parīta-cittatayā datta-nija-māṃsa-śakalās, tad yathā bodhi-sattvāḥ* Kapila and others are not dispassionate, because—inasmuch as [their] consciousness is not filled with compassion—they have not offered any bits of their own flesh even to the abodes of compassion (*sc.* to hungry beings who deserved compassion), … those, however, who are dispassionate, inasmuch as their consciousness is filled with compassion, offered bits of their own flesh to the abodes of compassion (*sc.* to hungry beings who deserved compassion), l i k e B o d h i s a t t v a s .	*avīta-rāgāḥ kapilâdayaḥ parigrahâgraha-yogāt; … yo vīta-rāgo na tasya parigrahâgrahaḥ, yatharṣabhâdeḥ* (NB 3.132) Kapila and others are not dispassionate, because they are endowed with covetousness and greed, … whoever is dispassionate, he does not have covetousness and greed, l i k e Ṛ ṣ a b h a .
[V7]	*avyatireka* without negative concomitance	*avīta-rāgaḥ kaścid vivakṣitaḥ puruṣo, vaktṛtvāt; … yaḥ punar vīta-rāgo, na sa vaktā, yathôpala-khaṇḍaḥ* A particular person in question is not dispassionate, because he is a speaker (*sc.* talks), … whoever is dispassionate, however, is not a speaker (*sc.* does not talk), l i k e a b i t o f s t o n e .	*avīta-rāgo 'yam vaktṛtvāt; yatrâvīta-rāgatvaṃ nâsti sa vaktā yathôpala-khaṇḍa iti* (NB 3.133) This [person] is not dispassionate, because he is a speaker (*sc.* talks), … [a person], in whom there is no dispassionateness, is a speaker (*sc.* talks), l i k e a b i t o f s t o n e .
[V8]	*apradarśita-vyatireka* with unindicated negative concomitance	*anityaḥ śabdaḥ kṛtakatvād, ākāśavat* Speech element is impermanent, because it is produced, l i k e s p a c e .	*anityaḥ śabdaḥ kṛtakatvād; ākāśavat* (NB 3.134) Speech element is impermanent, because it is produced, l i k e s p a c e .
[V9]	*viparīta-vyatireka* with inverted negative concomitance	[*anityaḥ śabdaḥ, kṛtakatvād, … yad akṛtakam tan nityaṃ bhavati, [*ākāśavat] yathâkāśam* Speech element is impermanent, because it is produced, … whatever is not produced is permanent, l i k e s p a c e .	[*anityaḥ śabdaḥ, kṛtakatvād,] yad akṛtakam tan nityaṃ bhavati, [*ākāśavat²⁷]* (NB 3.135) [Speech element is impermanent, because it is produced.] whatever is not produced is permanent, [l i k e s p a c e .]

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As far similarities in wording in both texts are concerned, the exceptions, i.e. passages where Siddharṣigaṇi does not follow in his illustrations those of Dharmakīrti at all, can easily be seen in the above tables: [S1] *sādhya-vikala-dṛṣṭântâbhāsa*, [S2] *sādhana-vikala-dṛṣṭântâbhāsa*, [V1] *sādhyâvyatireki-dṛṣṭântâbhāsa* and [V2] *sādhanâvyatireki-dṛṣṭântâbhāsa*.

In some other cases Siddharṣigaṇi's classification follows Dharmakīrti's typology in general, but varies in wording so insignificantly that the differences can be altogether discarded. Thus [S7] in the *ananvaya* type of fallacious example and in Siddharṣigaṇi's expression *vivakṣitaḥ puruṣaḥ* is tantamount to Dharmakīrti's *ayam*. That is also the case in [V7] the *avyatireka* type of fallacious example (*ayam = kaścid vivakṣitaḥ puruṣaḥ*), whereas the invariable concomitance is expressed in quite a similar way, barring different position of the negative clause (*yatrâvīta-rāgatvaṁ nâsti sa vaktā, yaḥ punar vīta-rāgo, na sa vaktā*). In [V4] *sandigdha-sādhya-vyatireka-dṛṣṭântâbhāsa* the second predicate *anāptā vā* is interchanged with the subject *kapilâdayaḥ*; the verb forms *upadiṣṭavān* (Dharmakīrti) and *pratyapīpadat* (Siddharṣigaṇi) are identical in meaning, likewise the pronouns *sa* (Dharmakīrti) and *asau* (Siddharṣigaṇi); the significant difference being the logical reason, i.e. the realm of supernatural teaching in the invariable concomitance and the example respectively: *avidyamāna-sarva-jñatâptatā-liṅga-bhūta-pramāṇâtiśaya-śāsanatvāt, jyotir-jñānâdikam, vardhamānâdiḥ* (Dharmakīrti) and *ārya-satya-catuṣṭayâpratyapīpadakatvāt, śauddhôdaniḥ* (Siddharṣigaṇi). In [V5] *sandigdha-sādhana-vyatireka-dṛṣṭântâbhāsa* the negation in the statement of the thesis is expressed either by the particle *na* (Dharmakīrti) or by the alpha-privativum *a-°* (Siddharṣigaṇi), while the compounds *grāhya-vacanaḥ* (Dharmakīrti) and *°-ādeya-vākyaḥ* (Siddharṣigaṇi) are identical in meaning; the only difference in the expression of the invariable concomitance is the number, viz. plural *ye . . . te* (Dharmakīrti) and singular *yaḥ . . . sa* (Siddharṣigaṇi); Siddharṣigaṇi does omit the phrase *trayīvidā brāhmaṇena*; the only significant difference being the example *gautamâdayo dharma-śastrāṇāṁ praṇetāraḥ* (Dharmakīrti) and *sugataḥ* (Siddharṣigaṇi). In [V9] the *viparīta-vyatireka* type the example is indicated either by the suffix *°-vat* (Dharmakīrti) or by relative indeclinable *yathā* (Siddharṣigaṇi).

In two instances the similarities in Dharmakīrti's and Siddharṣigaṇi's formulations are partial, thus in [S3] *sādhya-sādhana-vikala-dṛṣṭântâbhāsa* and in [S4] *sandigdha-sādhya-dharma-dṛṣṭântâbhāsa* only the example is identical, viz. *ghaṭavat* and *rathyā-puruṣavat*, respectively, and the compound element *°-rāga-°* and pronoun *ayam* in [S4]. In [V3] *sādhya-sādhanâvyatireki-dṛṣṭântâbhāsa* the subject of the thesis *śabdaḥ* is the same, whereas the predicate *nitya* (or *nitya-°*) partly overlaps. In [V6] *sandigdha-sādhya-sādhana-vyatireka-dṛṣṭântâbhāsa* only the theses of Dharmakīrti and Siddharṣigaṇi are identical, the negations being expressed either by the alpha-privativum *a-°* (Dharmakīrti) or by the particle *na* (Siddharṣigaṇi).

The large number of similarities or identical formulations alone is so ample that it leaves no doubt as regards the indebtedness of Siddharṣigaṇi to Dharmakīrti in this respect. That is the first point I wished to make: Dharmakīrti's typology has been practically accepted by NAV *en bloc*. A solitary case of parallelism in choosing illustrations of fallacious examples might be claimed to be nothing but coincidental, but the situation when Siddharṣigaṇi's choice of expressions in most cases coincides with that of Dharmakīrti and the eighteen-fold division of *dṛṣṭântâbhāsa* is identical in both cases can by no means be a matter of coincidence. Further, my thesis is corroborated additionally by the way Siddharṣigaṇi makes the selection of three proof formulas that are not mentioned by Dharmakīrti *in extenso* but in a terse, incomplete form to be supplemented from the context of preceding *sūtra*s, viz. [S7], [S9] and [V9]. When we reconstruct the proof formulas to complete formulations (for details see respective notes

22, 23, 27), as intended by Dharmakīrti—i.e. [S7] [*rāgâdimān ayaṁ, vaktṛtvād,*] *yathā yo vaktā sa rāgâdimān, iṣṭa-puruṣavat*, [S9] [*anityaḥ śabdaḥ, kṛtakatvāt,*] *yad anityaṁ tat kṛtakam* [*ghaṭavat*], [V9] [*anityaḥ śabdaḥ, kṛtakatvāt,*] *yad akṛtakaṁ tan nityaṁ bhavati,* [*ākāśavat*]—it turns out that they correspond virtually in every detail to the examples given by Siddharṣigaṇi.

There is at least one more reason to believe that Siddharṣigaṇi follows Dharmakīrti in his typology. Commenting upon [V4] he classifies the *sandigdha-sādhya-vyatireka* type as reducible, on extra-logical grounds, to be exact, to [V1] the *sādhyâvyatirekin* variety. The only reason for singling it out as a separate variety is the need to take into consideration the opinion of some people 'lacking the recognition' of certain substantial facts, to whom a particular case of a fallacious example lacking negative concomitance with the probandum 'appears to be [the fallacious example] in which negative concomitance with the probandum is doubtful'[28]. As a commentator, he was obviously restrained by the contents of Siddhasena Mahāmati's *Nyāyâvatāra*.[29] However NA 25[30] may be similarly taken to enforce the acceptance of the whole [VA] class (viz. [V1], [V2], [V3]) as well as o n l y   some types of the [VB] class (viz. one or more out of [V4], [V5], [V6]), but not necessarily all of them[31]. As the text stands, NA 25 does not urge one to distinguish separately the *sandigdha-sādhya-vyatireka* type.

Having examined the varieties of fallacious examples as illustrated by Dharmakīrti and Siddharṣigaṇi, we can easily notice a couple of regularities. What is conspicuous is almost complete absence of any similarity in the [A] sub-category of [S] and [V], viz. in [SA] (i.e. [S1], [S2], [S3]) and in [VA] (i.e. [V1], [V2], [V3]). There is a lot of correspondence in the [B] sub-category—viz. [SB] (i.e. [S4], [S5], [S6]) and [VB] (i.e. [V4], [V5], [V6])—in the exposition of both authors, although the comparison betrays certain differences, whereas the [C] sub-category—viz. [SC] (i.e. [S7], [S8], [S9]) and [VC] (i.e. [V7], [V8], [V9])—is altogether identical in NB and in NAV.

The question arises what factors could account for this evident incongruity in treating Dharmakīrti's sub-categories by Siddharṣigaṇi, if there is any? Why does Siddharṣigaṇi quote certain Dharmakīrti's reasonings *in extenso*, whereas he diverges from the Dharmakīrti's formulations in other cases?

Examining the varieties [S7], [S8], [S9], [V7], [V8] and [V9], Siddharṣigaṇi enters into a polemical discussion with an opponent, nay, he openly disputes the status of a separate fallacious example of the six types, attempting to prove them to be misconceived and faulty solely either due to the defects of the logical reason (*hetu*) or due to the incompetence of the speaker, but not because of their deficient nature being a separate and independent category of the fallacy of the example. The appropriate sections of NAV are introduced respectively as follows: 'And now [a doubt is raised]: "Some [thinkers] have taught an additional triad of fallacies of the example, as well, namely [S7] [the fallacious example] without positive concomitance, [S8] [the fallacious example] with unindicated positive concomitance and [S9] [the fallacious example] with inverted positive concomitance"'[32] and 'Other [thinkers], inasmuch as they are [such kind of people] who speak without deliberation, have demonstrated three additional fallacies of the example, as well, namely: [V7] [the fallacious example] without negative concomitance, [V8] [the fallacious example] with unindicated negative concomitance and [V9] [the fallacious example] with inverted negative concomitance'[33]. In the light of what has been said on the foregoing pages there can be no doubt regarding the identity of the opponent, referred to by Siddharṣigaṇi by 'others' (*paraiḥ*). To dispute the antagonistic standpoint, in this case Dharmakīrti's tradition, the easiest way would be simply to cite either the rival thesis and the name of its advocate. General practice of philosophic discourse in India, however, has it that it was enough to hear even the incipit alone to identify Dharmakīrti as the adversary. On the other hand, to interpolate or alter in any other way the opponent's statements was not advisable methodologically for a variety of reasons. A modified quotation might no longer be an

unambiguous indication of its source and author. Moreover, in case of an interpolated excerpt the opponent could easily ward off possible criticism pointing out that what is actually being refuted is not his own thesis and the criticism is misdirected. These seem to be Siddharṣigaṇi's motives to leave Dharmakīrti's six faulty illustrations ([S7], [S8], [S9], [V7], [V8], [V9]) in an unmodified form.

Having thus pointed out the target of his criticism, this decision did not compel Siddharṣigaṇi to preserve all the remaining original illustrations of Dharmakīrti intact. Still, he did refrain from introducing any changes to the illustrations taken over from NB in a few other cases, viz. in the [B] sub-category of the *sādharmya-dṛṣṭântâbhāsa* (i.e. [S4], [S5], [S6]).

These unmodified categories seem to be of considerably less interest for my purposes, whereas most of the remaining cases when Siddharṣigaṇi interpolates or modifies Dharmakīrti's illustrations form a kind of a puzzle, bringing up the question what purpose he had in mind while taking liberties with the original instances of fallacious examples formulated by Dharmakīrti. A closer look at all remaining illustrations in question, viz. the [A] sub-category of [S] and [V] (i.e. [S1], [S2], [S3], [V1], [V2], [V3]) as well as the [B] sub-category of [V] (i.e. [V4], [V5], [V6]), reveals that Siddarṣigaṇi's selection of locutions was deliberate, and his decision was motivated by his sectarian bias, in most part against the Buddhist, the only case of his other than anti-Buddhist prejudice being [V3]. Altogether, one may group illustrations of fallacious example, the original reading of which was modified by Siddharṣigaṇi, under three headings:

(1) Anti-Buddhist illustrations provoked by Dharmakīrti's own sectarian anti-Jinistic bias ([V4], [V6]),

(2) Anti-Buddhist illustrations not provoked by Dharmakīrti ([S1], [S2], [V1], [V2], [V5]), and

(3) Doctrinal illustration without anti-Buddhist bias, endorsing a particular Jaina tenet ([S3]).

Startling as it is, there is not even a single case when Siddharṣigaṇi modified Dharmakīrti's original illustration irrelevantly. There are no 'doctrinally neutral' changes: all alterations are prompted directly by Siddharṣigaṇi's sectarian partiality or doctrinal conviction.

My main concern now will be rather to examine the doctrinal, motivational or sociological background of each of such illustrations, not so much their logical relevance or formal structure.

(1) Anti-Buddhist illustrations provoked by Dharmakīrti's own sectarian anti-Jinistic bias. As in the case of Dharmakīrti's original illustrations, these are of insolent nature and do not aspire to establish any doctrinal thesis.

[V4] *sandigdha-sādhya-vyatireka*. Dharmakīrti's illustration of fallacious reasoning based on the fallacious example implicitly puts to doubt the omniscience and authority of Jaina Tīrthaṁkāras. In his illustration science of astronomy-astrology represents the distinguishing quality of cognition that should serve as 'the mark of possessing the status of an omniscient or an authoritative person, [which] is not present' (*avidyamāna-sarva-jñatâptatā-liṅga-°*). Accordingly, Kapila and many other thinkers did not teach astrology, as Jaina Tīrthaṅkāras did, hence they could not aspire to possess omniscience or authority. The doubtful element in this fallacious reasoning is whether teaching astrology necessarily entails omniscience and authority: one may be an expert in astrology without being omniscient or authoritative.[34] Even though both the Buddhist and the Jainas would take the thesis ('Kapila and others are neither omniscient nor authoritative persons') to be true, the whole reasoning is claimed by Dharmakīrti to be fallacious, because the proof formula is faulty, in so far as the negative example—which should adduce a contrary example, i.e. of someone who is both omniscient and authoritative ('Ṛṣabha, Vardhamāna and other [Jinas]')—is in his opinion fallacious, being doubtful. In this clandestine way Dharmakīrti discredits spiritual or/and intellectual accomplishments of Jaina Tīrthaṅkāras. In retaliation, Siddharṣigaṇi employs the same procedure and questions the Buddha's omniscience and authority, explaining that nothing bars

the possibility that a charlatan may likewise teach the Four Noble Truths and deliberately deceive people at the same time, without being omniscient or authoritative.[35] Siddharṣigaṇi's formulation of the doubt indicates that the Buddha was indeed neither omniscient or authoritative.

[V6] *sandigdha-sādhya-sādhana-vyatireka*. Kapila and Sāṁkhya school remain the scapegoat of the thesis also in this variety of the fallacious example both in NB and NAV. As in the preceding case, Dharmakīrti chooses the Jainas as the whipping boy in his example. His unpronounced assumption, at least something which is liable to doubt, is whether the Tīrthaṅkāras are dispassionate and free of covetousness and greed. Since in this proof formula both probandum and probans are doubtful, Tīrthaṁkāras' moral status is questioned in two ways. Not only their dispassionateness is disputed by the 'doubtful probandum' (in the correct *vyatireka* example this should be *vīta-rāga*), but also the logical reason imputes that the Tīrthaṁkāras are 'endowed with covetousness and greed' (*parigrahâgraha-yoga*). This is particularly offensive to Jainas, or to Digambaras as Dharmottara specifies, who would refrain even from wearing clothes in order to curb all desire for possessions and to manifest total lack of 'covetousness and greed'. Siddharṣigaṇi is quick to repay him tit for tat, and follows Dharmakīrti's method in every detail. He chooses two doctrinal points regarding Bodhisattvas—a Buddhist parallel of Jaina Tīrthaṅkāras—that are as sensitive to the Buddhists as Tīrthaṅkāras' dispassionateness and lack of possessions for the Jainas. To discredit the Buddhist ideal, he cites Bodhisattvas' compassion as an instance of doubtful probans. As if it were not enough, Siddharṣigaṇi adds a second logical reason (benevolence, *dāna*), which seems doubtful to him: 'Bodhisattvas have offered bits of their own flesh to hungry people who deserved compassion'.[36] Siddharṣigaṇi's charge is repeated explicitly in the concluding part of his argument, where he expresses his doubt through the doubtful probans ('[it is not known] whether the [Bodhisattvas] have offered bits of their own flesh to those deserving sympathy or not'), which follows the repetition of the doubtful probandum ('it is not known whether those [Bodhisattvas] are endowed with passion, etc., or whether they are dispassionate').

Two virtues of Bodhisattvas put to doubt are therefore compassion (*karuṇā*), the foundation of Buddhist ethics, and benevolence or charity (*dāna*), the first of the Perfections (*paramitā*). Siddharṣigaṇi is accurate to link *karuṇā* to *dāna*, following Buddhist tradition:

> 'The sons of the Buddha have always renounced even their own life [sacrificing it] for [the sake of anyone] who wishes for what is beneficial. And there is no higher disposition than compassion. There is no fruit [more] welcome [than the one] desired. And precisely thanks to this benevolence [they] have elevated the whole humankind to the triple understanding, and furthermore, by acquiring knowledge, [they] established benevolence in the world, which has not known [it previously].'[37]

Clearly, not only is compassion (*karuṇā*) the prime motive for benevolence (*dāna*), but also the proper practice of benevolence connotes absolute lack of passion or attachment (*rāga*): '"That because of which [something] is given [is] benevolence". Verily [that] is [benevolence]. [However, something] can also be given with passion etc., but this is not meant here.'[38], '… a noble person, who is dispassionate, as well as an ordinary man, who is passionate, can give offering in the temple… If a noble person, who is dispassionate, gives offering to other beings—with the exception of [the case when its results are] to be experienced in the present life—in that case the gift is for the sake of others, because this [offering brings] them benefit…'[39] The three virtues—dispassionateness (*vīta-rāgatva*) as the probandum (*sādhya*), as well as compassion (*karunā*) and benevolence (*dāna*, the offering of bits of one's own flesh being the proof of, and motivated by, one's compassion) as the probans (*sādhana*)—are therefore related doctrinally and ethically. However, there is nothing that would compel one to enlist all of them together in an instance of a faulty reasoning. The use of double logical reason (*karunā* and *dāna*) is not enforced by the logical structure of the argument itself. On the contrary, it is rather surprising to find such an elaborate, compounded

logical reason in the exposition of the fallacies of the example. Why did then Siddharṣigaṇi avail himself of two logical reasons, both of which express doubts about two virtues of Bodhisattvas?

A possible answer would be to match the double logical reason (*sādhana*) employed by Dharmakīrti (*parigraha* and *āgraha*). Astounding as it may be, the fallacious example of the *sandigdha-sādhya-sādhana-vyatireka* type is the only case when Dharmakīrti avails himself of a double logical reason, without any structural or logical need, and similarly the only case when Siddharṣigaṇi's classification has a double logical reason!

(2) Anti-Buddhist illustrations not provoked by Dharmakīrti. In this category of sectarian-biased and doctrinally-bound illustrations, Siddharṣigaṇi attempts to indirectly refute a particular Buddhist thesis.

[S1] *sādhya-vikala*. In view of Jaina theory of multiplexity of reality (*anekânta-vāda*), sound could be said to be both permanent and impermanent, depending on the specific point of reference. However, from this perspective practically every assertoric statement could be problematic for the Jainas, therefore it would be difficult to take Dharmakīrti's instance of the faulty proof formula as something provocative. Nevertheless, in his own illustration of the faulty example, Siddharṣigaṇi indirectly disavows the Buddhist well-known doctrine of erroneousness of inference[40]. It is the thesis (*bhrāntam anumānaṁ*) which conveys the criticism, whereas the example (perception as erroneous knowledge) was as unacceptable to the Buddhist as it was to the Jainas. The background for this faulty proof formula is apparently the discussion (NAV 5) of the idea of cognitive validity (*prāmāṇya*), which by definition entails non-erroneousness of our cognition; hence perception and inference have to be non-erroneous, if they are both cognitive criteria. In fact, the thesis of the defective proof formula in question (NAV 24.2 (p. 409): *bhrāntam anumānaṁ, pramāṇatvāt, pratyakṣavat*) is antithetical to NA 5cd: 'This [inference] is non-erroneous because it is a cognitive criterion, just like perception' (*tad abhrāntaṁ pramāṇatvāt samakṣavat*).

[S2] *sādhana-vikala*. Dharmakīrti's reasoning is almost identical to [S1], with the only exception of the 'infinitesimal atom' (*paramâṇu*) that replaces 'action' (*karman*) in [S1]. Similarly, there is nothing explicitly anti-Jinistic in Dharmakīrti's proof formula. Nevertheless, Siddharṣigaṇi takes this opportunity to criticise another Buddhist theory: the doctrine of illusory character of worldly appearance as the contents of consciousness (*vijñāna-vāda*). What we have here—except for the use of *pramāṇa* in place of the usual *pratyaya*—is one of many formulations of the so-called 'Dreaming Argument': 'The sensation in the waking state is erroneous, because it is a cognitive criterion, like the sensation in a dream' (*jāgrat-saṁvedanaṁ bhrāntaṁ, pramāṇatvāt, svapna-saṁvedanavat*). This argument is commonly ascribed to the Buddhist and we find references to it also in a number of non-Jinistic sources. In its typical formulation (with '*pratyaya*' or '*khyāti*' as the logical reason), the Dreaming Argument is refuted, for instance, by Kumārila[41], Uddyotakara[42], Śaṅkara[43] and by Siddharṣigaṇi himself later on[44]. It is important to note that, as it has been shown by TABER (1994: esp. 28–31), the so-called Dreaming Argument has never been expressed by the Buddhist thinkers in the form as it appears in anti-Buddhist works. In subsequent lines[45] Siddharṣigaṇi employs a series of expressions that describe cognitive states (viz. *saṁvedana*, *pramāṇa*, *pratyaya*) in the context of Dreaming Argument. It is an open question whether one may be justified to conclude that he saw no qualitative difference between these three expressions in this particular context and therefore used them interchangeably as synonyms. In this particular case he seems to employ the term '*pramāṇa*' (in the place of the logical reason) basically in the sense of *pratyaya*. In any standard formulation of the Dreaming Argument (*mithyā stambhâdi-pratyayaḥ pratyayatvāt, yathā svapnâdi-pratyayaḥ) the term *pratyaya* is used in the sense of a cognition the contents of which corresponds to the object represented in the cognition.[46] In this manner, being factual and reliable, its meaning comes close to Siddharṣigaṇi's use of '*pramāṇa*'. Accordingly, Siddharṣigaṇi's illustration is a

criticism, be it indirect, of the Buddhist idealist standpoint expressed in the Dreaming Argument.

[V1] *sādhyâvyatirekin*. The case is rather analogous, doctrinally speaking, to [S1] in the formulation of Siddharṣigaṇi, apart from '*svapna-jñāna*' used as the negative example.[47]

[V2] *sādhanâvyatirekin*. This illustration of fallacious example immediately invokes the famous Yogācāra-Sautrāntika thesis: 'perception is free from conceptual construction'[48]. Inference (*anumāna*), mentioned as the *dṛṣṭânta* of a conceptual mental event which is not a cognitive criterion, does not fulfil the definition of the proper negative example, being a *pramāṇa* itself, viz. lacks negative concomitance with the probans. This particular illustration corroborates the Jaina claim that perception that is free from any conceptual construction could eventually be never experienced by any cogniser. That this illustration is not accidental can be seen from the fact Siddharṣigaṇi refutes the Buddhist thesis at length in NAV 4, cf. e.g. NAV 4.5 (p. 364): *tan na kadācana kalpanâpoḍhatvaṁ pratyakṣasya pramātur api pratīti-gocara-cāritām anubhavati.*—'So, [to express it metaphorically], freedom from conceptual construction [in the case] of perception never experiences the phenomenon of [itself] turning into the domain of awareness of the cogniser whatsoever.'

[V5] *sandigdha-sādhana-vyatireka*. The contents of this particular instantiation in Dharmakīrti's formulation is of much interest in itself. In the reasoning, the instantiation of the fallacious example are philosophers or law-makers of the Brahmanic tradition, like Gautama, Manu[49], etc. The doubtful element in this reasoning is whether these Brahmanic thinkers are reliable teachers: 'Here the exemplification based on dissimilarity [can be formulated in the following manner]: "Those whose statements can be trusted, are not endowed with passion etc., like Gautama and others, who are promulgators of *Dharma-śāstra*." It is doubtful [here] whether the property of the probans, namely "being endowed with passion etc.", does not occur in (is excluded from) Gautama and others.'[50] In this manner, Dharmakīrti casts doubt on their dispassionateness and, thereby, intimates that Brahmanical philosophers or law-makers may be subject to passions. The proof formula has the following structure:

(1) *rāgâdimān* (H) *kaścit vivakṣitaḥ puruṣaḥ* (P): $P \subset H$,

(2) *na trayīvidā brāhmaṇena grāhya-vacanaḥ* (S) *rāgâdimān* (H): $H \subset S$,

ergo: *na trayīvidā brāhmaṇena grāhya-vacanaḥ* (S) *kaścit vivakṣitaḥ puruṣaḥ* (P): $P \subset S$.

The correct negative example (D) should be excluded from the probans / logical reason (*sādhana-vyatireka*: $D \subset H'$) as well as excluded from the probandum / the property to be proved (*sādhya-vyatireka*: $D \subset S'$), viz. $(D \subset H') \cap (D \subset S')$. One more condition is that in the negative formulation of the example (D exemplifying P') occurs is the contraposition of $P' \subset H \subset S$, viz. $S' \subset H' \subset P'$. Thus, $D \subset S'$ would be the condition for $D \subset H'$: 'if a particular person d of the D-range ($d \in D$) is trustworthy (S'), then this person is dispassionate (H')'. In other words, to distrust dispassionateness of Gautama, Manu and other Brahmanic law-givers undermines one's trust in their trustworthiness, and *ipso facto* the veracity and authority of the Brahmanic lore is undermined. This unspoken conclusion is openly expressed by Dharmottara in his commentary[51]: it is unreasonable to rely on words of teachers of Brahmanical tradition, like Gautama, Manu, etc. At the same time, Dharmakīrti is claimed by Dharmottara[52] to question the veracity of statements of other Brahmanic philosophers like Kapila, etc. This criticism has also its social dimension: such is the behaviour of most people who rely on the teaching contained in the works on *dharma* by Gautama, Manu, etc.

Dharmakīrti's thesis refers to 'a Brahmin learned in the three Vedas' (*trayīvidā brāhmaṇena*), who is a follower and/or promulgator of the Brahmanic philosophical and religious tradition in everyday life and a local authority. The Brahmin's scepticism regarding his own Brahmanic tradition, as expressed in *Gautama-dharma-sūtra*, *Manu-smṛti* etc., could undermine the tradition itself. The overall picture of the Brahmanical society relying on tradition would be, therefore, that neither proponents of the social-religious tradition (Gautama, Manu, etc.) nor

preceptors of philosophical schools (e.g., Kapila) are a suitable source of reliable teaching for a true Brahmin. Dharmakīrti's approach in the argument is therefore clearly anti-Brahmanical and could be a reflection of Buddhist-Brahmanic strife.

Last but not least, that the opponents' tradition, which one criticises, was at some point not too well known is attested by Durveka Miśra, who erroneously identifies the Gautama in Dharmakīrti's example with Gautama Akṣapāda: 'Gautama's other name is Akṣapāda, and he is the thinker who is the author of the *Nyāya-sūtra*.'[53] Dharmakīrti himself was clear enough when he mentioned that Gautama is one of promulgators/authors of Law textbooks (*gautamâdayo dharma-śastrāṇāṁ praṇetāraḥ*), and this could by no means be Akṣapāda!

On his part, Siddharṣigaṇi leaves the basic structure of Dharmakīrti's argument intact and replaces Dharmakīrti's original example *gautamâdayo dharma-śastrāṇāṁ praṇetāraḥ* with *sugataḥ*, the Buddha. *Mutatis mutandis* the Buddha's dispassionateness becomes subject to doubt, and subsequently the whole Buddhists teaching. What is missing from Siddharṣigaṇi's formulation is 'the Brahmin learned in the three Vedas' (*trayividā brāhmaṇena*). This could have been a conscious decision to leave this phrase out: the implication would be that any teacher who is not dispassionate should not be trusted, be he a Hindu or Buddhist; and the truly dispassionate are the Jinas. Moreover, the main opponent for the Buddhist was Brahmanic tradition, whereas the Jainas had to protect their identity and distinctiveness not only against Brahmanic conversions but also against Buddhist influence. To confront this wider picture of the society from Jaina perspective, Siddharṣigaṇi apparently extended it by embracing the proponents of Buddhism and including them into the comprehensive framework of unreliable teachers whose dispassionateness was doubtful.

(3) Theses prompted by certain other doctrines that stand in opposition to Jaina tenets.
[S3]. *sādhya-sādhana-vikala*. In case of Dharmakīrti, the reasoning is a mere repetition of [S1] and [S2], with a new example ('pot' excluded from both the probans 'imperceptible' and the probandum 'impermanent'). Unlike Dharmakīrti, Siddharṣigaṇi takes this opportunity to corroborate indirectly a crucial dogma of the Jainas, viz. the omniscience of the Jinas and the Arhants. From Siddharṣigaṇi's contention that '[this example is fallacious] because, [firstly], a pot is existent and, [secondly], it is comprehended through perception, etc.'[54] one could even venture to infer its antithesis, namely *asti sarva-jñaḥ*. An elaborate discussion of all implications of this reasoning, however, would not be relevant to the subject of the present paper and would exceed its limits.

As it has been pointed out above, Siddharṣigaṇi rejects Dharmakīrti's six sub-varieties of the fallacious examples (viz. [S7], [S8], [S9], [V7], [V8] and [V9]) as irrelevant and wrongly classified due for two reasons: they are either due to the defects of the logical reason (*hetu*) or due to the incompetence of the speaker.[55] Dharmottara, whose influence on Siddharṣigaṇi is clear,[56] was well aware that some fallacies of the example are in fact due to the ineptness of the speaker to communicate his thoughts properly. Commenting on the [S8] *apradarśitânvaya* category, in which positive concomitance is unindicated, he says: 'Hence, the example has as its objective [the demonstration of] the positive concomitance; its object is not explicated by this [example]. And [the example] that is explicated [here as having as] its objective [the demonstration of] similarity [alone] is of no use, therefore this [alleged example] is— i n a s m u c h   a s   [i t   i s]   d u e   t o   t h e   d e f e c t   o f   t h e   s p e a k e r — the defect of the example, f o r   t h e   s p e a k e r   h a s   t o   d e m o n s t r a t e   [h i s   t h e s i s]   t o   t h e   o p p o n e n t   i n   t h i s   [e x a m p l e].   Therefore, even though the circumstances are not defective, nevertheless, they are shown in a defective manner. Hence, [this example] in nothing but defective (*sc.* fallacious).'[57] Similarly on   [S9]: 'Therefore also [S9] [the category] with inverted positive concomitance [is defective] b e c a u s e   o f   t h e   s p e a k e r ' s   m i s t a k e ,   not because of circumstances. And in [case of] inference for others one has to consider also the defect of the speaker,'[58] on [V8]: 'In this case [of] inference for others the meaning should be understood [directly] from the

opponent's [words]. Even if the [argument] is correct in itself, but is formulated incorrectly by the opponent, it [becomes] such (sc. defective): as far as it is expressed, it is not correct, [and] as far as it is correct, it is not expressed. And [what is] expressed is the logical reason. Hence either the logical reason or the example [can be] defective b e c a u s e o f t h e s p e a k e r ' s m i s t a k e ,'[59] and on [V9]: 'And accordingly, also [the category] with inverted negative concomitance is [is defective] b e c a u s e o f t h e s p e a k e r ' s m i s t a k e .'[60] His proof that such varieties as [S8], [S9], [V8] and [V9] are varieties of the fallacious example was rather conversational: although there is a deficiency solely on the part of the speaker, nevertheless, they become fallacies of the example in case of inference for others (*parârthânumāna*). As an ardent commentator, however, Dharmottara accepted Dharmakīrti's typology *en bloc*. Perhaps, it was his candid assertion that all these sub-types are due to various defects of the speaker that inspired Siddharṣigaṇi. A separate question is whether Dharmakīrti himself was aware of the fact that some of his fallacious examples could rather be cases of the speaker's incompetence alone?

What role was actually assigned to the example in the proof formula by both parties? Dharmakīrti admits that *dṛṣṭânta* is not an independent member of the proof formula: 'The triple-formed logical reason has been discussed. This alone [can produce] the cognition of an object. Hence there is no separate member of the proof formula called example. That is why no separate definition of this [example] is given, because its meaning is implied [by definition of the logical reason].'[61] Accordingly, the role of *dṛṣṭânta* is to additionally corroborate what the logical reason expresses[62]. Fallacious examples 'fail to demonstrate with certainty the general characteristic of the logical reason, viz. its presence in the homologue only, and [its] complete absence in the heterologue, and its individual characteristic … '[63] Dharmottara explains that the example is to demonstrate the sphere of application and validity of invariable concomitance: 'The example is the province of a cognitive criterion that establishes the invariable concomitance. In order to demonstrate it, it is said: "like some other [object]." It means that the example is some other [object] that is the property-possessor of the probandum.'[64] Indeed, in some cases, e.g. while offering the illustrations of the fallacious examples [S9] and [V9], Dharmakīrti in the end does not mention… any illustration expressly! They have to be supplied from the preceding *sūtra*s. Instead, he merely expresses the invariable concomitance ([S9]: *yad anityaṁ tat kṛtakam*, and [V9]: *yad akṛtakaṁ tan nityaṁ bhavati*). Since, for all practical reasons, the invariable concomitance is employed as intrinsic to the example, this explains both the necessity of the example as an integral member of the proof formula and the fact that the example is not independent of the logical reason: the logical reason relies on the invariable concomitance, which is in turn expressed in the example.

Dharmakīrti's and Dharmottara's view contrasts with Siddhasena Mahāmati's and Siddharṣigaṇi's position, who minimised the role of the example merely to 'the recollection of the relation (*sambandha-smaraṇa*), [i.e. the invariable concomitance].'[65] In their opinion the example was not supposed to prove anything nor to corroborate anything; its role was solely auxiliary, of conversational or instructive dimension.[66] Their standpoint was based on a very intuitive and strongly context-bound assumption that there are three kinds of logical proof conceivable, depending on the conversational context.[67] The most elementary and pragmatic, most context-dependant was a one-membered proof formula consisting of 'a mere demonstration of the logical reason' (*hetu-pratipādana-mātraṁ*), provided both parties knew the thesis and remembered the invariable concomitance. That being the case, the pronouncement of an example was not necessary, because the disputants knew what they were talking about. Moreover, the invariable concomitance became intrinsic to the logical reason: the role to demonstrate the invariable concomitance (*vyāpti*) was assigned to the logical reason alone, not to the example. In this way, the example was no longer supposed to demonstrate anything, but simply to make us aware of the context of the argument.

This easily explains why Siddharṣigaṇi disagrees to accept two of the above mentioned varieties ([S7][68] and [V7][69]) as fallacious examples and, in the final result, he classifies them

as erroneous cases, or wrongly classified cases of fallacious logical reasons. His opinions contradicts that of Dharmottara, viz. that the example should either demonstrate—or be, at least, directly related to demonstration of—the invariable concomitance.[70] Four remaining sub-types (viz. [S8], [S9], [V8] and [V9]) are taken by Siddharṣigaṇi to be caused by incompetence of the speaker.[71] In his rebuttal of the Buddhist position, he avails himself of a quotation from Dharmakīrti in order to show inconsistencies in Dharmakīrti's view.[72]

The shift in the importance and role of the example, which justifies Siddharṣigaṇi's motives, was an important change in Indian logic for two reasons. Firstly, we have here a case of 'economical principle', or the tendency to simplify the proof formula and get rid of all unnecessary elements.[73] Secondly, this is an instance of a tendency to general formalisation, to decontextualise reasoning procedures, viz. to make them universally binding. Before the example was an integral element of the proof formula with a specific role assigned to it, e.g. to substitute the universal variable x in a general statement 'wherever there is smoke, there is fire, like in the kitchen etc.' (*yatra yatra dhūmas tatra tatrâgnir, yathā mahānasâdau*) with an individual constant p: 'and there is smoke here' (*tathā câtra dhūmaḥ*). Accordingly, any reasoning needed further empirical justification, and the premises were not enough. Here the reasoning becomes independent of its 'external', empirical exemplification, as long as we have two premises entailed by the logical reason: the explicit contents of the logical reason and the relation of *vyāpti* underlying the logical reason. The traditional proof formula (either three-membered or five-membered) of the general form:

(1)   'there is smoke here': $H(p)$,
(2)   'wherever there is smoke, there is fire': $\forall x \, (H(x) \Rightarrow S(x))$,
(3)   'like in the kitchen': $\exists y \, (H(y) \Rightarrow S(y))$,
ergo: 'there is fire here': $S(p)$
becomes:
either
(1')   'if there is smoke here, there is fire here'; $H(p) \Rightarrow S(p)$,
ergo: 'there is fire here': $S(p)$.
or
(1")   'if there were no fire here, there would be no smoke here': $\neg S(p) \Rightarrow \neg H(p)$,
ergo: 'there is fire here': $S(p)$.

Siddharṣigaṇi gives an instance of this reasoning, e.g.: 'If the relation is, however, recollected [then the inference consists of only two members], as follows: "[1] There is fire here, [2] because it is explicable due to [the occurrence of] smoke"; [alternatively,] by [applying an example] based on dissimilarity, [one reasons in a negative way:] "[1] There is fire here, [2] because [the occurrence of] smoke would be otherwise inexplicable".'[74]

The above is of course an enthymematical reasoning, with one premise unexpressed, either
(2')   'wherever there is smoke, there is fire': $\forall x \, (H(x) \Rightarrow S(x))$,
or
(2")   'wherever if there were no fire, there would be no smoke': $\forall x \, (\neg S(x) \Rightarrow \neg H(x))$.

This decrease of necessary members of the proof formula was in fact possible thanks to the new way of defining the characteristic of the logical reason, viz. 'inexplicability otherwise' (*anyathânupapannatva, anyathânupapatti*), which can be either formulated in the positive way (*tathôpapatti*) or (*anyathânupapatti*).[75]

To recapitulate, there can be hardly any doubt that Dharmakīrti immensely contributed to Jaina typology of fallacies of the example (*dṛṣṭântâbhāsa*), at least in case of Siddhasena Mahāmati[76] and his commentator, Siddharṣigaṇi. A closer look at the instances of fallacious examples offered by Dharmakīrti and Siddharṣigaṇi reveals that Dharmakīrti inspired his rivals not only in the realm of strictly logical analysis (in our case: classification of fallacies), but also methodologically: how to attack one's own opponents with arguments clad in harmless illustrations of faulty proof formulas, and to express doubts as regards fundamental

doctrines upheld by rival schools. Neither Dharmakīrti nor Siddharṣigaṇi was negligent when it comes to the selection of exemplifications of the fallacious example. On the contrary, their most careful choice reveals considerable amount of prejudice against their rivals. In case of Siddharṣigaṇi, his biased position was provoked to a some degree by Dharmakīrti, whose method of discrediting the antagonist he conscientiously follows.

Furthermore, minor differences in Buddhist and Jaina classification of *dṛṣṭântâbhāsa*s, esp. [S7], [S8], [S9], [V7], [V8] and [V9], testifies to a different role assigned to the example and the invariable concomitance in the proof formula. This uncovers also an important tendency among Jaina logicians to simplify the structure of the proof formula and to free it from the need of empirical exemplification.

What is also important, the discussion shows that even such eminent thinkers as Dharmakīrti or Siddharṣigaṇi were not above sectarian prejudice and provocation. Humans flesh and blood, they did not abstain from expressing such not entirely elevated emotions in a concealed way at every availing opportunity.

Having said all this, let me come to my initial question: is there any other disadvantage, apart from occasional 'expense of brevity and facility of communication' mentioned already (p. 2), in having a symbolic and formalised language to describe the way we reason and draw inferences? Obviously, had Indian logicians used symbols and a applied formalised language of logic, decidedly less sources would have been left to our disposal to follow the development of certain ideas or to track down historical dependencies and intellectual influences among philosophers. And Dharmakīrti and Siddharṣigaṇi would not have had an additional tool, of extralogical nature, to censure their opponents.

BIBLIOGRAPHY

AK = Vasubandhu: *Abhidharma-kośa. Abhidharmakośa and Bhāṣya of ācārya Vasubandhu with Sphuṭārthā Commentary of ācārya Yaśomitra*. Critically edited by Svāmī Dvārikādās Śāstri. *Bauddha Bharati Series* 5, 6, 7, 9, Varanasi, 1970: Part I (1 and 2 *Kośasthāna*); 1971: Part II (3 and 4 *Kośasthāna*); 1972: Part III (5 and 6 *Kośasthāna*); 1973: Part IV (7 and 8 *Kośasthāna*) [Reprinted: Vārāṇasī 1987].

AKBh = Vasubandhu: *Abhidharma-kośa-bhāṣya*. See: AK.

Alex = Alexander: *In Aristotelis Analyticorum Priorum Librum I Commentarium*, M. Wallies, Berolini 1883.

BALCEROWICZ 1999 = Balcerowicz, Piotr: 'Taxonomic approach to *dṛṣṭântâbhāsa* in *Nyāya-bindu* and in Siddharṣigaṇi's *Nyāyâvatāra-vivṛti*—Dharmakīrti's typology and the Jaina criticism thereof.' In: *Dharmakīrti's Thought and Its Impact on Indian and Tibetan Philosophy (Proceedings of the Third International Dharmakīrti Conference—Hiroshima, November 4–6, 1997)*. Ed. by Shoryu Katsura, Verlag der Österreichischen Akademie der Wissenschaften: *Beiträge zur Kultur- und Geistesgeschichte Asiens* Nr. 32, Wien 1999: 1–16.

BALCEROWICZ 2001a = Balcerowicz, Piotr: *Jaina Epistemology In Historical And Comparative Perspective—A Critical Edition And An Annotated Translation Of Siddhasena Divākara's Nyāyâvatāra, Siddharṣigaṇin's Nyāyâvatāra-vivṛti And Devabhadrasūri's Nyāyâvatāra-ṭippana*. Volume I & II. *Alt- und Neu-Indische Studien* 53,1 & 53,2. Franz Steiner Verlag, Stuttgart 2001.

BALCEROWICZ 2001b = Balcerowicz, Piotr: 'Two Siddhasenas and the Authorship of the *Nyāyâvatāra* and the *Saṁmati-tarka-prakaraṇa*,' *Journal of Indian Philosophy* 29/3 (2001) 351–578.

BALCEROWICZ 2003 = Balcerowicz, Piotr: 'Is "Inexplicability Otherwise" (*anyathānupapatti*) Otherwise Inexplicable?', *Journal of Indian Philosophy* 1–3 (2003) 343–380 [*Proceedings of*

the International Seminar 'Argument and Reason in Indian Logic' 20–24 June, 2001 — Kazimierz Dolny, Poland].

BOCHEŃSKI 1954 = Bocheński, I.M.: *Die Zeitgenössischen Denkmethoden*, Zweite Auflage, Dalp-Taschenbücher Band 304, Lehnen Verlag München, 1959 [First edition: Bern 1954]

BOCHEŃSKI 1980 = Bocheński, I.M.: 'The General Sense and Character of Modern Logic' in *Modern Logic—A Survey*; E. Agazzi (ed.), D. Reidel Publishing Company, Dordrecht 1980: 3–14.

BOOLE 1847 = Boole, George: *The Mathematical Analysis of Logic*; Cambridge—London 1847.

BSŚBh = Śaṅkara: *Brahma-sūtra-śāṅkara-bhāṣya*. Ed. with the commentaries: *Bhāṣya-ratna-prabha* of Govindānanda, *Bhāmatī* of Vācaspatimiśra, *Nyāya-nirṇaya* of Ānandagiri; ed. by J.L. Shastri, Motilal Banarsidass, Delhi 1980 [Reprinted: Delhi 1988].

CHATTERJEE 1978 = Chatterjee, Asim Kumar: *A Comprehensive History of Jainism: up to 1000 A.D.*, Firma KLM Private Limited, Calcutta 1978.

CHURCH 1956 = Church, Alonzo: *Introduction to Mathematical Logic*; Vol. 1, Princeton University Press, Princeton—New Jersey 1956.

DhPr = Durveka Miśra: *Dharmôttara-pradīpa* [being a sub-commentary on Dharmottara's *Nyāyabinduṭīkā*, being a commentary on Dharmakīrti's *Nyāyabindu*], ed. Pt. Dalsukhbhai Malvania, *Tibetan Sanskrit Works Series* 2, Kashi Prasad Jayaswal Research Institute, Patna [2]1971.

ŁUKASIEWICZ 1957 = Łukasiewicz, Jan: *Aristotle's Syllogistic from the Standpoint of Modern Formal Logic*, Second Enlarged Edition, Clarendon Press, Oxford 1957 [First edition: 1951].

MSA = Asaṅga (Maitreyanātha?): *Mahāyāna-sūtrâlaṅkāra*. *Mahāyāna-sūtrâlaṅkāra of Asaṅga*. Ed. by S. Bagchi, *Buddhist Sanskrit Texts* 13, The Mithila Institute of Post-Graduate Studies and Research in Sanskrit Learning, Darbhanga 1970.

MŚV = Kumārila Bhaṭṭa: *Mīmāṁsā-śloka-vārtika*, with the Commentary *Nyāya-ratnâkara* of Pārthasārathi Miśra, ed by. Rāmaśāstri Tailaṅga, *Chowkhamba Sanskrit Series* 3, Benares 1889–1899.

NA = Siddhasena Mahāmati: *Nyāyâvatāra*. See: BALCEROWICZ (2001a).

NAV = Siddharṣigaṇi: *Nyāyâvatāra-vivṛti*. See: BALCEROWICZ (2001a).

NB = Dharmakīrti: *Nyāya-bindu*. See: DhPr.

NBh = Vātsyāyana: *Nyāya-bhāṣya*. See: NV.

NBṬ = Dharmottara: *Nyāya-bindu-ṭīkā*; See: DhPr.

NP = Śaṅkarasvāmin: *Nyāya-praveśa*. Revised critical edition in: Piotr Balcerowicz: 'Śaṅkarasvāmin: *Nyāya-praveśa*—"Introduction to Logic" ("Wprowadzenie w logikę")', Part One: *I. Polish Translation, II. Sanskrit Text, III. Notes § I, Abbreviations and Bibliography*; *Studia Indologiczne* 2 (1995) 39–87: 72–77.

NP (1) = Śaṅkarasvāmin: *Nyāya-praveśa. Part One: The Nyāya-praveśa—Sanskrit Text with Commentaries*. Ed. by A. B. Dhruva, *Gaekwad's Oriental Series* 38, Baroda 1930.

NP(2) = Śaṅkarasvāmin: *Nyāya-praveśa*. In: Musashi Tachikawa: 'A Sixth-Century Manual of Indian Logic (A Translation of the Nyāyapraveśa)', *Journal of Indian Philosophy* 1 (1971) 11–45 [Dordrecht].

NV = Bhāradvāja Uddyotakara: *Nyāya-vārttika*. *Nyāyabhāṣyavārttika of Bhāradvāja Uddyotakara*. Ed. by Anantal Thakur. *Nyāyacaturgranthikā* Vol. I, Indian Council of Philosophical Research, New Delhi 1997.

PSV = Diṅnāga: *Pramāṇa-samuccaya-vṛtti* [Chapter I]. In: Masaaki Hattori: *Dignāga, On Perception, being the Pratyakṣapariccheda of Dignāga's Pramāṇasamuccaya*, from the Sanskrit fragments and Tibetan versions. *Harvard Oriental Series* 47, Harvard University Press, Cambridge, Massachusetts 1968.

PV = Dharmakīrti: *Pramāṇa-vārttika*. (1) Ram Chandra Pandeya (ed.): *The Pramāṇa-vārttikam of Ācārya Dharmakīrti with Sub-commentaries: Svôpajña-vṛtti of the Author and Pramāṇa-vārttika-vṛtti of Manorathanandin*. Motilal Banarsidass, Delhi 1989.

(2) Tripiṭakāchārya Rāhula Sāṅkṛityāyana (ed.): *Pramāṇavārttikabhāshyam or Vārtikālañkāraḥ of Prajñākaragupta (being a commentary on Dharmakīrti's Pramāṇavārttika)*. Kashi Prasad Jayaswal Research Institute, Patna 1953. (3) Raniero Gnoli (ed.): *The Pramāṇavārttikam of Dharmakīrti. The First Chapter with the Autocommentary*. Instituto Italiano per il Medio ed Estremo Oriente. *Serie Orientale Roma* XXIII, Roma 1960.

PVin II = *Dharmakīrti's Pramāṇaviniścayaḥ, 2. Kapitel: Svārthānumānam*. Tib. Text und Sanskrittexte von E. Steinkellner. Veröffentlichungen der Kommission für Sprachen und Kulturen Süd- und Ostasiens 12, Österreichische Akademie der Wissenschaften, Wien 1973.

PVSV = Dharmakīrti: *Pramāṇa-vārttika-svôpajña-vṛtti*. See: PV (1).

RUSSELL 1917 = Russell, Bertrand: 'The study of mathematics' in *Mysticism and logic and other essays*. Third impression, Unwin Books, London 1970: 48–58. [First edition: 1917].

SHASTRI 1990 = Shasti, Indra Chandra: *Jaina Epistemology*. P. V. Research Series 50, Vārāṇasī 1990.

STEINKELLNER–MUCH = Steinkellner, Ernst; Much, Michael Torsten: *Texte der erkenntistheoretischen Schule des Buddhismus (Systematic Survey of Buddhist Sanskrit Literature) II*, Abhandlungen der Akademie der Wissenschaften in Göttingen, Vandenhoeck & Ruprecht in Göttingen 1995.

TABER 1994 = Taber, A. John: 'Kumārila's Refutation of the Dreaming Argument: the *Nirālambanavāda-adhikaraṇa*', in *Studies in Mīmāṁsā—Dr. Mandan Mishra Felicitation Volume*, ed. R.C. Dwivedi, Motilal Banarasidass, Delhi 1994: 27–52.

VAIDYA 1928 = Vaidya, P. L.: 'Introduction' to *Nyāyâvatāra of Siddhasena Divākara with The Vivṛti of Siddharṣigaṇi and with The Ṭippana of Devabhadra*. Ed. by … . Shri Jain Shwetamber Conference, Bombay 1928: vii–xliii.

VīVy = Nāgārjuna: *Vigraha-vyāvartanī. The Dialectical Method of Nāgārjuna (Vigraha-vyāvartanī)*, Skt. text ed. by E. H. Johnston and Arnold Kunst. Transl. by Kamaleswar Bhattacharya, Motilal Banarsidass, Delhi 1978. [Second edition: 1986].

NOTES

[*] An abridged version of this paper first appeared as BALCEROWICZ (1999), from which Table I (p. 5) and Table II (p. 6) are reproduced with variations.

[1] ŁUKASIEWICZ (1957: § 4).

[2] Aristotle employed symbols only in the form of letters as variables that substituted proper names in a broader sense. The first to employ symbolic expressions—following the method of algebra—that represent logical constants, such as connectives, improper symbols (e.g. parentheses, brackets) etc., was BOOLE (1847).

[3] The opening lines of the 'Introduction' in BOOLE (1847: 3).

[4] BOOLE (1847: 6).

[5] BOOLE (1847: 7).

[6] RUSSELL (1917: 51).

[7] BOOLE (1847: 6).

[8] Alex 53.28: ἐπὶ στοιχείων τὴν διδασκαλίαν ποιεῖται ὑπὲρ τοῦ ἐνδείξασθαι ἡμῖν, ὅτι οὐ παρὰ τὴν ὕλην γίνεται τὰ συμπεράσματα ἀλλὰ παρὰ τὸ σχῆμα καὶ τὴν τοιαύτην τῶν προτάσεων συμπλοκὴν καὶ τὸν τρόπον· οὐ γὰρ ὅτι ἥδε ἡ ὕλη, συνάγεται συλλογιστικῶς τόδε, ἀλλὰ ὅτι ἡ συζυγία τοιαύτη. τὰ οὖν στοιχεῖα τοῦ καθόλου καὶ ἀεὶ ἐπὶ παντὸς τοῦ ληφθέντος τοιοῦτον ἔσεσθαι τὸ συμπέρασμα δεικτικά ἐστιν.

[9] BOOLE (1847: 9–10).

[10] Most of these advantageous characteristics enumerated above are concurrent with the recapitulation of BOCHEŃSKI (1954: 50): 'Der Gebrauch von künstlichen Symbolen ist indessen zugleich mit dem Formalismus aufgekommen. Whitehead und Russell rechtfertigen ihn folgendermaßen. (1) In dem Wissenschaften allgemein, besonders aber in der Logik, braucht man Begriffe, die so abstrakt sind, daß man in der Umgangssprache keine entsprechenden Worte dafür findet. Man ist also zu Symbolbildungen genötigt. (2) Die Syntax der Umgangssprache ist zu wenig exakt, ihre Regeln lassen zu viele Ausnahmen zu, als daß man auf dem Gebiet der strengen Wissenschaft gut damit zu operieren vermöchte. Man könnte sich wohl zu helfen suchen, indem man die Worte der Umgangssprache beibehielte und nur die Regeln änderte, aber dann würden doch die Worte durch Assoziationen immer wieder die lockeren Regeln der Alltagssprache nahebringen, und es entstünde Verwirrung. Deshalb ist es besser, eine künstliche Sprache mit eigenen, streng syntaktischen Regeln aufzustellen. (3) Entscheidet man sich für den Gebrauch einer künstlichen Sprache, dann kann man ganz kurze Symbole wählen, etwa einzelne Buchstaben statt ganzer Worte; so werden die Sätze bedeutend kürzer als in der Umgangssprache und wesentlich leichter verständlich. (4) Schließlich sind die meisten Worte der Umgangssprache sehr vieldeutig; so hat z. B. das Wort «ist» wenigstens ein Duzend verschiedene Bedeutungen, die in der Analyse scharf auseinander gehalten werden müssen. Es ist also zweckmäßig, statt solcher Worte künstliche, aber eindeutige Symbole zu brauchen.'

[11] VīVy 51: 'The establishing [of a particular cognitive criterion can] by no means [be accomplished] by [the cognitive criterion] itself or by [cognitive criteria] mutually or by other [cognitive criteria]'.

[12] BOCHEŃSKI (1980: § 3 (1)).

[13] CHURCH (1956: 2–3).

[14] NB 3.9: *tathā svabhāva-hetoḥ prayogaḥ—yat sat tat sarvam anityam, yathā ghaṭâdir iti śuddhasya svabhāva-hetoḥ prayogaḥ.*

[15] Cf. NBṬ *ad loc*: **yat sad iti** *sattvam anūdya* **tat sarvam anityam** *iti anityatvaṁ vidhīyate. sarvam-grahaṇaṁ ca niyamârtham. sarvam anityam. na kiñcin nânityam.*—'After existence has been called to mind [as something well known] by [words] "whatever is existent", impermanence [of everything] is taught as something yet unknown (*sc.* to be proved) with [words] "that every thing is impermanent". And the use of [the word] "everything" has the purpose of circumscription (reference): "everything is impermanent", [viz.] "there is nothing that is not impermanent".' Cf. PVSV 3.28: *tathā hi yat kṛtakaṁ tad anityam ity ukte 'anarthântara-bhāve vyaktam ayam asya svabhāvas …*

[16] NB 3.22: *kārya-hetoḥ prayogaḥ—yatra dhūmas tatrâgniḥ. yathā mahānasâdau. asti cêha dhūma iti.*

[17] Cf. NB 2.18: *kāryaṁ yathâgnir atra dhūmad iti*; see also PVSV 3.28: *tathā yatra dhūmas tatrâgnir iti ukte kāryaṁ dhūmo dahanasya.*

[18] PVSV 3.34: *yeṣām upalambhe tal-lakṣaṇam anupalabdhaṁ yad upalabhyate. tatrâkâbhāve 'pi nôpalabhyate. tat tasya kāryaṁ tac ca dhūmo 'sti.*

[19] NP 3.3.1 (= NP (1) 5.19–6.14): *tatra sādharmyeṇa tāvad dṛṣṭântâbhāsaḥ pañca-prakāraḥ, tad yathā:* [1] *sādhana-dharmâsiddhaḥ,* [2] *sādhya-dharmâsiddhaḥ,* [3] *ubhaya-dharmâsiddhaḥ,* [4] *ananvayaḥ,* [5] *viparītânvayaś cêti // tatra* [1] *sādhana-dharmâsiddho yathā: nityaḥ śabdo 'mūrtatvāt* **paramâṇuvat**. *yad amūrtaṁ tan nityaṁ dṛṣṭaṁ yathā paramâṇuḥ. paramâṇau hi sādhyaṁ nityatvam asti sādhana-dharmo 'mūrtatvaṁ nâsti mūrtatvāt paramâṇūnām iti //* … , NP 3.3.2: *vaidharmyeṇâpi dṛṣṭântâbhāsaḥ pañca-prakāraḥ, tad yathā:* [1] *sādhyâvyāvṛttaḥ,* [2] *sādhanâvyāvṛttaḥ,* [3] *ubhayâvyāvṛttaḥ,* [4] *avyatirekaḥ,* [5] *viparīta-vyatirekaś cêti // tatra* [1] *sādhyâvyāvṛtto yathā: nityaḥ śabdo 'mūrtatvāt* **paramâṇuvat**. *yad anityaṁ tan mūrtaṁ dṛṣṭaṁ yathā paramâṇuḥ. paramâṇor hi sādhana-dharmo 'mūrtatvaṁ vyāvṛttaṁ mūrtatvāt paramâṇūnām iti. sādhya-dharmo nityatvaṁ na vyāvṛttaṁ nityatvāt paramâṇūnām iti //*

[20] NB 3.124: [S1] *sādhya-vikala—nityaḥ śabdo 'mūrtatvāt, karmavat*, and NB 3.129: [V1] *sādhyâvyatirekin—nityaḥ śabdo 'mūrtatvāt, paramâṇuvat.* For details see the tables below and the respective note 24.

[21] Another way of looking at the typology of fallacious example could be the following table, where *x* is a variable (*sādhya, sādhana*, and the relation between them both, i.e. *anvaya* and *vyatireka*) and *φ* is a function of *x*:

	sādhya-φ	*sādhana-φ*	*sādhya-sādhana-φ*	*φ-anvaya*	*φ-vyatireka*
x-*vikala*	[S1]	[S2]	[S3]		
x-*avyatirekin*	[V1]	[V2]	[V3]		
sandigdha-x-*dharma*	[S4]	[S5]	[S6]		
sandigdha-x-*vyatireka*	[V4]	[V5]	[V6]		
a-x				[S7]	[V7]
apradarśita-x				[S8]	[V8]
viparīta-x				[S9]	[V9]

[22] This (*rāgâdimān ayaṁ vaktṛtvād*) is how the thesis and the logical reason should be reconstructed, first, in view of the explication of the positive concomitance in NB 3.126 itself (*yathā yo vaktā sa rāgâdimān*), and secondly in view of the NBṬ *ad loc*: **yo vaktêti** *vaktṛtvam anūdya* **sa rāgâdimān** *iti rāgâdimattvaṁ vihitaṁ*, wherein the gerund *anūdya* of *anu√vad* is used in its conventional meaning of 'having called something to mind [as well known]' and the past passive participle *vihita*, a derivative of the verb *vi√dhā*, occurs in its well attested meaning 'introduced as something new; taught as something yet unknown (*sc.* to be proved)'. Also DhPr *ad loc.* (*vaktṛtvasya heto rāgâdimattve sādhye pratiniyamaḥ pratiniyatatvam uktam iti śeṣaḥ*) expresses plainly the logical reason (*hetu: vaktṛtva*) and the probandum (*sādhya: rāgâdimattva*). The significance of the corresponding section of NAV that offers the formulation of the proof formula *in extenso* and tallies with our reconstructed version, should not be underestimated.

[23] The formulation of the thesis and the logical reason (*anityaḥ śabdaḥ, kṛtakatvāt ...*) alongside with the example (*… ghaṭavat*) are, obviously, to be supplied from the preceding aphorism NB 3.126. The statement *yad anityaṁ tat kṛtakam* is the formulation of the invariable concomitance (*anvaya*) referring to the proof formula in NB 3.126, which is incomplete, inasmuch as it lacks its explicit statement, being the fallacy of *anavayava* type. Cf. also NBṬ *ad loc*: **yad anityam** *ity anityatvam anūdya* **tat kṛtakam** *iti kṛtakatvaṁ vihitaṁ*. This proof formula bears resemblance (barring the lack of negation in the thesis of *sādhana-dharmâsiddha* type of fallacious example, which is to be supplied further on in the *viparītânvaya* type) to the one found in NP 3.3.1 (= NP (1) 5.19–6.14): *tatra sādharmyeṇa tāvad dṛṣṭântâbhāsaḥ pañca-prakāraḥ, tad yathā: ...* [1] *sādhana-dharmâsiddho yathā:* <u>*nityaḥ śabdo 'mūrtatvāt paramâṇuvat.*</u> *...* [5] *viparītânvayo yathā: yat kṛtakaṁ tad anityaṁ dṛṣṭam iti vaktavye* <u>*yad anityaṁ tad kṛtakaṁ dṛṣṭam*</u> *iti bravīti* // (cf. above n. 19). The reconstruction is independently confirmed by the reading found in the corresponding section of NAṬ.

[24] The thesis and the logical reason (*nityaḥ śabdo 'mūrtatvāt*) here as well as in the two following cases are to be supplied from the parallel aphorism of NB 3.124. Besides, the reconstruction is directly confirmed by NBṬ: *nityatve śabdasya sādhye hetāv amūrtatve paramāṇu-vaidharmya-dṛṣṭântaḥ sādhyâvyatirekī.*

[25] Cf. n. 24.

[26] Cf. n. 24.

[27] The formulation of the thesis and the logical reason (*anityaḥ śabdaḥ, kṛtakatvāt …*) alongside with the example (*… ākāśavat*) are, beyond doubt, to be supplied from the preceding aphorism: NB 3.134 states incomplete reasoning lacking the explicit formulation of the negative concomitance which NB 3.135 supplies, though in the reversed order. The proof formula formed correctly would run as follows: *anityaḥ śabdaḥ, kṛtakatvāt, yad akṛtakaṁ tan nityaṁ bhavati, ākāśavat.* This proof formula— with the correct formulation of the negative concomitance—occurs in NP 2.2 (= NP (2) 2.2 = NP (1) 1.11–13): *tad yathā:* <u>*anitye śabde sādhye ghaṭādir anityaḥ sapakṣaḥ* // *vipakṣo yatra sādhyaṁ nâsti. yan nityaṁ tad akṛtakaṁ dṛṣṭaṁ yathâkāśam iti.*</u> The reconstruction is independently confirmed by the reading found in the corresponding section of NAṬ. Similarly to [S9], also this proof formula

bears certain resemblance (barring the lack of negation in the predicate *anitya*) to the one found in NP 3.3.2 (= NP (1) 6.14–7.8): *vaidharmyeṇâpi dṛṣṭântâbhāsaḥ pañca-prakāraḥ, tad yathā*: … [1] *sādhyâvyāvṛtto yathā*: nityaḥ śabdo 'mūrtatvāt paramâṇuvat. ... [5] *viparīta-vyatireko yathā: yad anityaṁ tan mūrtaṁ dṛṣṭam iti vaktavye yan mūrtaṁ tad anityaṁ dṛṣṭam iti bravīti //* (cf. above n. 19).

[28] NAV 25.2 (p. 414), vide infra n. 35.

[29] On the authorship of NA see BALCEROWICZ (2001b).

[30] NA 25:

> *vaidharmyeṇâtra dṛṣṭânta-doṣā nyāya-vid-īritāḥ /*
>
> *sādhya-sādhana-yugmānām anivṛtteś ca saṁśayāt //*
>
> —'Defects of the example, here based on dissimilarity, have been proclaimed by the experts in logic [to arise] from non-exclusion of the probandum, of the probans and of their combination and from the [liability to] suspicion [regarding their presence].'

[31] One would naturally read *anivṛtteḥ* and *saṁśayāt* as dependent on the compound *sādhya-sādhana-yugmānām*. Theoretically speaking, however, the latter could be taken separately. NA 25 is not the only aphorism that is not conclusive. For instance NA 8:

> *dṛṣṭêṣṭâvyāhatād vākyāt paramârthâbhidhāyinaḥ /*
>
> *tattva-grāhitayôtpannaṁ mānaṁ śābdaṁ prakīrtitam //*
>
> —'The cognitive criterion—arisen as grasping reality due to a [momentous] sentence, which is accepted as what is experienced, and which is not contradicted [as well as] which communicates the ultimate truth—is declared [to be] the verbal knowledge,'

is differently construed by the commentators, e.g. (1) NAV 8.1 (p. 380): **dṛṣṭena** *pramāṇâvalokitenêṣṭaḥ pratipādayiṣito* **'vyāhato** *'nirākṛtaḥ sāmarthyād artho yasmin vākye tat-tathā* ('in which [momentous] sentence the meaning—due to its efficacy—is "**accepted**," [i.e.,] desired to be demonstrated, as "**what is experienced**," [i.e.,] as what is seen by [means of] a cognitive criterion, [and which is] "**not contradicted**," [i.e.,] which is not revoked; that [momentous sentence] is such.'), and (2) NAṬ *ad loc.* (n. 340, p. 222): **dṛṣṭenêtyâdi**. *ayaṁ bhinnâdhikaraṇas tri-pado bahu-vrīhiḥ yadi vêṣṭo 'vyāhato 'rtho yatra tad iṣṭâvyāhataṁ vākyam, tadanu dṛṣṭena pramāṇa-nirṇītenêṣṭâvyāhatam iti tat-puruṣaḥ* ('This is either a *bahu-vrīhi* compound consisting of three words, which has a substance different [from its constituent elements]: "such a statement in which the meaning is accepted [and] not contradicted"; or it [may be understood as] a *tat-puruṣa* compound: "what is accepted [and] not contradicted by what is experienced, [viz.,] by what is determined through a cognitive criterion".').

[32] NAV 24.3 (p. 411): *nanu ca parair anyad api dṛṣṭântâbhāsa-trayam uktam, tad yathânanvayo 'pradarśitânvayo viparītânvayaś cêti.*

[33] NAV 25.3 (pp. 415–416): *parair apare 'pi dṛṣṭântâbhāsās trayo 'vimṛśya-bhāṣitayā darśitāḥ. tad yathā—avyatireko, 'pradarśita-vyatireko, viparīta-vyatirekaś cêti. te 'smābhir ayuktatvān na darśayitavyāḥ.*

[34] NBṬ *ad loc.*: *atra pramāṇe vaidharmyôdāharaṇam. yaḥ sarva-jña āpto vā sa jyotir-jñānâdikaṁ sarva-jñatâptatā-liṅga-bhūtam upadiṣṭavān. yathā ṛṣabho vardhamānaś ca tāvādī yasya sa ṛṣabha-vardhamānâdi-digambarāṇāṁ śāstā sarva-jñaś ca āptaś cêti. tad iha vaidharmyôdāharaṇād ṛṣabhâder asarva-jñatvasyânāptatāyāś ca vyatireko vyāvṛttiḥ saṁdigdhā. yato jyotir-jñānaṁ côpadiśed asarva-jñāś ca bhaved anāptā vā. ko 'tra virodhaḥ? naimittikam etaj jñānaṁ vyabhicāri na sarva-jñatvam anumāpayet.*

[35] NAV 25.2 (p. 414): *atra vaidharmya-dṛṣṭânto: yaḥ punaḥ sarva-jña āpto vā 'sāv ārya-satya-catuṣṭayaṁ pratyapīpadat, tad yathā—śauddhôdanir iti. ayaṁ ca sādhyâvyatirekī vârya-satya-catuṣṭayasya duḥkha-samudaya-mārga-nirodha-lakṣaṇasya pramāṇa-bādhitatvena tad-bhāṣakasyâsarvajñatânāptatôpapatteḥ. kevalaṁ tan-nirākāraka-pramāṇa-sāmarthya-paryālocana-vikalānāṁ sandigdha-sādhya-vyatirekatayā pratibhātîti tathôpanyastaḥ. tathā hi: yady apy ārya-satya-catuṣṭayaṁ śauddhôdaniḥ pratipāditavāṁs, tathâpi sarvajñatâptate tasya na siddhyataḥ, tābhyāṁ sahârya-satya-catuṣṭaya-pratipādanasyânyathânupapatty-asiddher, asarva-jñānāptenâpi para-pratāraṇâbhiprāya-pravṛtta-nipuṇa-buddhi-śaṭha-puruṣeṇa tathā-vidha-pratipādanasya kartuṁ*

śakyatvāt. tasmāc chauddhôdaneḥ sakāśād asarva-jñatânāptatā-lakṣaṇasya sādhyasya vyāvṛttiḥ sandigdhêti sandigdha-sādhya-vyatirekitvam iti.—'Here the example based on dissimilarity [can be formulated in the following manner]: "Whoever were either an omniscient or an authoritative person, however, he would teach the four noble truths, f o r   i n s t a n c e :   Ś u d d h o d a n a ' s   s o n (*sc.* the Buddha)." Or else, [one could say as well that] this is [the first variety of fallacious example] lacking negative concomitance with the probandum, because—inasmuch as the four noble truths characterised by the suffering, [its] origin, the path [leading to its cessation and its] cessation are subverted by cognitive criteria—an advocate of these [four noble truths] is explicable [only] as a non-omniscient and a non-authoritative person. Simply, [the above fallacious example] has been specified as such [an example in which negative concomitance with the probandum is doubtful] because to [people] lacking the recognition of the efficacy of cognitive criteria that revoke these [four noble truths] it appears as [the fallacious example] in which negative concomitance with the probandum is doubtful. For it is as follows: even though Śuddhodana's son (the Buddha) taught the four noble truths, nevertheless his omniscience and his authority are not proved, because there is no proof that teaching the four noble truths is otherwise inexplicable except together with these two, [i.e., omniscience and authority], inasmuch as it is [equally] possible that a cunning person of an adroit mind, who acts with an intention of cheating others, although he is neither omniscient nor authoritative, can impart teaching of that kind. Therefore, non-occurrence of the probandum characterised by non-omniscience and by lack of authority is doubtful in [the case of] Śuddhodana's son (the Buddha); hence [this instance is called an example] in which negative concomitance with the probandum is doubtful.' It is worth mentioning that, strangely enough, the typical sequence of the four noble truths is here disturbed: Siddharṣigaṇi interchanges the third and fourth noble truths.

[36] NAV 25.2 (p. 415): *na vīta-rāgāḥ kapilâdayaḥ, karuṇâspadeṣv apy akaruṇâparīta-cittatayâdatta-nijaka-māṁsa-śakalatvād iti. atra vaidharmya-dṛṣṭânto: ye punar vīta-rāgās te karuṇâspadeṣu karuṇā-parīta-cittatayā datta-nija-māṁsa-śakalās, tad yathā—bodhi-sattvā iti. atra sādhya-sādhana-dharmayor bodhi-sattvebhyo vyāvṛttiḥ sandigdhā; tat-pratipādaka-pramāṇa-vaikalyān na jñāyate kiṁ te rāgâdimanta uta vīta-rāgāḥ; tathânukampyeṣu kiṁ sva-piśita-khaṇḍāni dattavanto nêti vā. ataḥ sandigdha-sādhya-sādhana-vyatirekitvam iti.*—'"Kapila and other [thinkers of his kind] are not dispassionate, because—inasmuch as [their] consciousness is not filled with compassion—they have not offered any bits of their own flesh even to the abodes of compassion (*sc.* to hungry beings who deserved compassion)." Here the example based on dissimilarity [can be formulated in the following manner]: "Those, however, who are dispassionate, inasmuch as their consciousness is filled with compassion, offered bits of their own flesh to the abodes of compassion (*sc.* to hungry beings who deserved compassion), f o r   i n s t a n c e :   B o d h i s a t t v a s ." Here the non-occurrence of the properties of both the probandum and the probans in the case of Bodhisattvas is doubtful. Because of lack of any cognitive criterion that [could] demonstrate that (*sc.* that passions, etc., are excluded in the case of Bodhisattvas), it is not known whether those [Bodhisattvas] are endowed with passion, etc., or whether they are dispassionate; similarly, [it is not known] whether they have offered bits of their own flesh to those worthy of sympathy, or not. Hence, [this is the fallacious example] in which negative concomitance with [both] the probandum and the probans is doubtful.'

[37] MSA 16.36 (p. 105.24–27):

> *tyaktaṁ buddha-sutaiḥ svajīvitam api prāpyârthinaṁ sarvadā /*
>
> *kāruṇāt paramo na ca pratikṛtir nêṣṭaṁ phalaṁ prārthitam /*
>
> *dānenâiva ca tena sarva-janatā bodhi-traye ropitā /*
>
> *dānaṁ jñāna-parigraheṇa ca punar loke 'jñayaṁ sthāpitam //*

[38] AK 4.113a and AKBh *ad loc.* (p. 740.10–741.2): **dīyate yena tad danam,** *bhavati sma. rāgâdibhir api dīyate, na câtra tad iṣṭam.*

[39] AKBh *ad AK 4.113ab* (p. 741.14–17): *... avīta-rāgaḥ āryaḥ pṛthag-jano vā vīta-rāgaś caitye dānaṁ dadāti ... yadâryo vīta-rāgaḥ para-sattvebhyo dānaṁ dadāti sthāpayitvā dṛṣṭa-dharma-vedanīyaṁ tatra dānaṁ pareṣāṁ arthāya, tena teṣāṁ anugrahāt…*

[40] Cf. NBṬ 1.5: *bhrāntaṁ hy anumānaṁ sva-pratibhāse 'narthe 'rthâdhyavasāyena pravṛttatvāt*, and PVin II p. 24.6–7:
de ma yin la der ᶜdzin pḥyir |
| ᶜkhrul kyaṅ ᶜbrel pḥyir tshad ma ñid ||

= (PVin II p. 25:) *atasmiṁs tad-graho*[*] *bhrāntir api sambandhataḥ pramā* // [* Tib. *tad-grahāt?*]

[41] MŚV (*Nirālambana-vāda*) 23 (p.159.7–8):

stambhâdi-pratyayo mithyā pratyayatvāt tathā hi yaḥ /

pratyayaḥ sa mṛṣā dṛṣṭaḥ svapnâdipratyayo yathā // —

—'The cognition of a column etc. is erroneous, because it is a cognitition, for it is as follows: whatever is a cognition it is false, like the cognition in a dream.'

[42] NV on NBh 4.2.34 (p. 489.8–9): *ayam jāgrad-avasthôpalabdhānāṁ viṣayāṇāṁ citta-vyatirekiṇām asattve hetuḥ khyātiḥ svapnavad iti na dṛṣṭāntasya sādhya-samatvāt.*—'This logical reason [to be provided] for [the thesis that] "things perceived in the state of wakefulness do not exist as [something] different from consciousness do not exist" is "cognition", like in a dream.—[This argument] is not [correct], because the example is in the same [predicament as] the probandum,' which is the case of the fallacy of the logical reason (*hetvâbhāsa*): the cited example is in need of proof as much as the thesis it is supposed to prove.

[43] BSŚBh 2.2.5.29 (p.476.2–3): *yad uktaṁ bāhyârthâpalāpinā svapnâdivaj jāgarita-gocarā api stambhâdi-pratyayā vinâva bāhyenârthena bhaveyuḥ pratyayatvâviśeṣād iti tad prativaktavyam.*— 'What has been said by [the Buddhist idealist] who denies [the existence of] external objects: "Like in a dream etc., also acts of cognition of a column etc. which have as their domain the waking state are possible solely without external thing, because there is no difference [as regards them being] acts of cognition."—this is [now] refuted.'

[44] The argument, in its typical wording, reoccurs later in NAV 29.8 (p. 437): *nirālambanāḥ sarve pratyayāḥ, pratyayatvāt, svapna-pratyayavad.*—'All acts of cognition are void of the objective substratum, because [they are] acts of cognition, like a cognition in dream.'

[45] E.g. NAV 24.2 (p. 410): *svapna-saṁvedanasya pramāṇatā-vaikalyāt tat-pratyanīka-jāgrat-pratyayôpanipāta-bādhitatvād iti.*—'[This example is fallacious] because the sensation in dream is subverted—inasmuch as it lacks the status of cognitive criterion—by the occurrence of the cognition of a person in the waking state, which is opposite to this [sensation in dream].'

[46] Cf. e.g. NAV 29.1 (p. 425): *iha yad yatra pratibhāti, tad eva tad-gocaratayâbhyupagantavyam*.

[47] As far as certain structural nuances are concerned, worth pointing out is the fact that Dharmakīrti employs not more than two different instances of reasoning to represent altogether four types of fallacious reasoning, viz. he interchanges them as follows: [S1] = [V2] and [S2] = [V1]. Siddharṣigaṇi uses various intermingled illustrations, in which certain 'semi-variables' overlap as follows: the probandum is—with one exception—the same (i.e. *sādhya* of [S1] = *sādhya* of [S2] = *sādhya* of [V1] = '*bhrāntam*'), the logical reason remains unchanged (i.e. *hetu* of [S1] = *hetu* of [S2] = *hetu* of [V1] = *hetu* of [V2] = '*pramāṇatvāt*'), *pakṣa* of [S1] = *pakṣa* of [V1]; = *dṛṣṭânta* of [V2] (*anumānam*); *pakṣa* of [V2] = *dṛṣṭânta* of [S1] (*pratyakṣam*); *dṛṣṭânta* of [S2] = *dṛṣṭânta* of [V1] (*svapna-saṁvedanam*); *sādhya* of [V2] (= *nirvikalpaka*) has no match.

[48] See e.g. PSV 1.k3c-d: *pratyakṣaṁ kalpanâpoḍhaṁ nāma-jāty-ādy-asaṁyuktam*, and NB 4: *tatra pratyakṣaṁ kalpanâpoḍham abhrāntam.* Comp. also the definition found in NP 4.1 (= NP (1) 7.12–3), bearing striking similarity to the one of Diṅnāga, which fact was initially one of the reasons responsible for the wrong attribution of Śaṅkarasvāmin's manual to Diṅnāga: *tatra pratyakṣaṁ kalpanâpoḍhaṁ. yaj jñānam arthe rūpâdau nāma-jāty-ādi-kalpanā-rahitam tad.* See also NBṬ 1.4 (p. 47.1): *bhrāntam hi anumānam svapratibhāse 'narthe 'rthâdhyavasāyena pravṛttatvāt.*

[49] This is an addition of Dharmottara, cf. NBṬ *ad loc.*: *gautama ādir yeṣāṁ te tathôktā manv-ādayo dharma-śāstrāṇi smṛtayas teṣāṁ kartāraḥ …*

[50] NB 3.131: *atra vaidharmyôdāharaṇaṁ: ye grāhya-vacanā na te rāgâdimantaḥ, tad yathā gautamâdayo dharma-śāstrāṇāṁ praṇetāra iti. gautamâdibhyo rāgâdimattvasya sādhana-dharmasya vyāvṛttiḥ sandigdhā.*

[51] NBṬ *ad* NB 3.131: *gautamâdibhyo rāgâdimattvasya sādhanasya nivṛttiḥ sandigdhā. yady api te grāhya-vacanās trayīvidā*[*] *tathâpi kiṁ sarāgā uta vīta-rāgā iti sandehaḥ.*—'Even though those [thinkers like Gautama and others] are [such people] whose statements should be trusted by a [Brahmin] learned in the three Vedas, nevertheless there is a doubt whether [they are] passionate or

[52] NBṬ *ad* NB 3.131: *vivakṣita iti kapilâdi dharmī.*

[53] DhPr. *ad* NB 3.131 (p. 247.20–21): *gautamo 'kṣapādâpara-nāmā nyāya-sūtrasyâpi praṇetā muniḥ. manur iti smṛti-kāro muniḥ.*

[54] NAV 24.2 (p. 410): *ghaṭasya sattvāt pratyakṣâdibhir upalabdhatvāc ca.*

[55] [S7] and [V7] are 'the defects of the logical reason alone' (NAV 24.4: *tadânanvayatva-lakṣaṇo na dṛṣṭântasya doṣaḥ, kiṁ tarhi hetor eva*, and NAV 25.3: *tasmād asiddha-pratibandhasya hetor evâyaṁ doṣo, na dṛṣṭântasyêti*). [S8], [S9], [V8] and [V9] 'rise from the defects of the speaker' (NAV 24.4: *vaktṛ-doṣatvāt*, and NAV 25.4: *vaktṛ-doṣa-samutthau*).

[56] Dharmottara (c. 740–800, see STEINKELLNER–MUCH (1995: 67)) preceded Siddharṣigaṇi by at least a 100 years (c. 900), cf. SHASTRI (1990: 27: 9/10th century). Siddharṣigaṇi finished his work on the *Upamiti-bhava-prapañcā-kathā*, on 1st May 906 C.E. (Vikrama Saṁvat 962) according to VAIDYA (1928: xxi) and CHATTERJEE (1978: 287).

[57] NBṬ 3.126 (pp. 242.6–243.2): *ato 'nvayârtho dṛṣṭântas tad-arthaś cânena nôpapāttaḥ. sādharmyârthaś côpapātto nirupayoga iti vaktṛ-doṣād ayaṁ dṛṣṭânta-doṣaḥ. vaktrā hy atra paraḥ pratipādayitavyaḥ. tato yadi nāma na duṣṭaṁ vastu tathâpi vaktrā duṣṭaṁ darśitam iti duṣṭam eva.*

[58] NBṬ 3.127 (p. 244.3–4): *tasmād viparītânvayo 'pi vaktur aparādhāt, na vastutaḥ. parârthânumāne ca vaktur api doṣaś cintyata iti.*

[59] NBṬ 3.134 (p. 250.3–5): *iha parârthânumāne parasmād arthaḥ pratipattavyaḥ. sa śuddho 'pi svato yadi pareṇâśuddhaḥ khyāpyate sa tāvad yathā prakāśitas tathā na yuktaḥ. yathā yuktas tathā na prakāśitaḥ. prakāśitaś ca hetuḥ. ato vaktur aparādhād api parârthânumāne hetur dṛṣṭânto vā duṣṭaḥ syād iti.*

[60] NBṬ 3.135 (p. 252.9–10): *tathā ca viparīta-vyatireko 'pi vaktur aparādhād duṣṭam.*

[61] NB 3.121 (p. 234.1–2): *tri-rūpo hetur uktaḥ. tāvatā cârtha-pratītir iti na pṛthag dṛṣṭânto nāma sādhanâvayavaḥ kaścit. tena nâsya lakṣaṇaṁ pṛthag ucyate gatârthatvāt.*

[62] See NB 3.122 (p.235).

[63] NB 3.122 (p.235): *na hy ebhir dṛṣṭântâbhāsair hetoḥ sāmānya-lakṣaṇaṁ sapakṣa eva sattvaṁ vipakṣe ca sarvatrâsattvam eva niścayena śakyaṁ darśayituṁ viśeṣa-lakṣaṇaṁ ca. tad arthâpatyâiṣāṁ nirāso draṣṭavyaḥ.*

[64] NBṬ 3.8 (p.188.2–3): *vyāpti-sādhanasya pramāṇasya viṣayo dṛṣṭântaḥ. tam eva darśayitum āha— yathânya iti. sādhya-dharmiṇo 'nyo dṛṣṭânta ity arthaḥ.*

[65] NA 18:

> *sādhya-sādhanayor vyāptir yatra niścīyate-tarām /*
> *sādharmyeṇa sa dṛṣṭântaḥ sambandha-smaraṇān mataḥ //*

[66] See NAV 18.1 (p. 398): *ayaṁ câvismṛta-pratibandhe prativādini na prayoktavya ity āha: **sambandha-smaraṇād** iti, lyab-lope pañcamī, prāg-gṛhīta-vismṛta-sambandha-smaraṇam adhikṛtya … gṛhīte ca pratibandhe smaryamāṇe kevalaṁ hetur darśanīyaḥ, tāvatâiva bubhutsitârtha-siddher dṛṣṭânto na vācyo, vaiyarthyāt. yadā tu gṛhīto 'pi vismṛtaḥ kathañcit sambandhas, tadā tat-smaraṇârthaṁ dṛṣṭântaḥ kathyate.*—'Subsequently, [having in mind] that this [example] does not have to be pronounced for the disputant who has not forgotten the invariable connection, [the author] says: "**because of the recollection of the relation**," [wherein] the ablative is used in the place of the gerund, [i.e.,] having taken account of the recollection of the relation, which has been grasped previously and [have been afterwards] forgotten; this [example] "**is known as**," [i.e.,] intended, by logicians, not in any other case. For when a [person] to be taught does not know the relation characterised by the property [on the part of the probans] of being inseparably connected with the probandum even now, then he should be made grasp the relation by [means of] a cognitive criterion, not merely by an example, for 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, because [that would have] too far-reaching consequences. And if the invariable connection, which has been grasped [before], is being recollected, then simply the logical reason has to be shown; since an object which one wants to cognise is proved by that much

dispassionate?' [* See the critical apparatus in Dalsukhbhai Malvania's edition and the editor's note 7: '*vidā tathâpi* A.P.H.E.N.'; the main text reads: *vidas tathâpi*.]

only, an example does not have to be stated, because it is purposeless. But when the relation—even though it has been grasped [before]—has somehow been forgotten, then an example is mentioned with the purpose of its recollection, [i.e., in order to remind the opponent of the invariable concomitance].' The same remark applies to both kinds (positive and negative) of the example, cf. NAV 19.1 (p. 400): *yatra kvacid **dṛṣṭânte** sa **vaidharmyeṇa** bhavatîti-śabdena sambandha-smaraṇād iti.*

⁶⁷ NAV 20.1 (p. 401): *tat-siddhau tata eva sādhya-siddher akiñcit-karī dṛṣṭântôdāhṛtir iti **nyāya-vido** nyāya-vidvāṁso **vidur** avabudhyanta iti. iha ca prakaraṇe śeṣâvayavānām upanaya-nigamana-śuddhi-pañcaka-lakṣaṇānāṁ saṅkṣipta-ruci-sattvânugraha-paratvād asya, yady api sākṣāl lakṣaṇaṁ nôktaṁ, tathâpy ata eva pratipāditâvayava-trayād buddhimadbhir unneyaṁ; yato 'vayavâpekṣayā jaghanya-madhyamôtkṛṣṭās tisraḥ kathā bhavanti. tatra hetu-pratipādana-mātraṁ jaghanyā. dvy-ādy-avayava-nivedanaṁ madhyamā. sampūrṇa-daśâvayava-kathanam utkṛṣṭā. tatrêha madhyamāyāḥ sākṣāt kathanena jaghanyôtkṛṣṭe arthataḥ sūcayati, tad-sadbhāvasya pramāṇa-siddhatvād iti.*—'"**Experts in logic**", [i.e.,] specialists in logic, "**have recognised**" [i.e.,] they know, that when this [invariable connection] has been proved, an exemplification by [adducing] an example is ineffective, inasmuch as the probandum is [already] proved by this [invariable concomitance]. And even though the definition of the remaining members [of a proof formula] characterised by application, conclusion and the five clearances have not been taught directly here in this treatise, inasmuch as this [treatise] aims at the advantage of [human] beings who delight in concise [form], nevertheless [respective definition] can be deduced by the learned from this very triad of the members of the proof formula demonstrated [above], because there are [eventually] three kinds of discourse as regards the [number of] members of the proof formula, viz. lower, intermediate and superior. Out of them, the lower one is a mere demonstration of the logical reason; the intermediate one is a proclamation of two or more [but not all] members of the proof formula; the superior [discourse] is the mention of complete ten members of the proof formula. Regarding these [varieties of the discourse], by the direct mention of the intermediate [discourse] here [in this treatise the author] indicates both the lower and the superior [varieties of the discourse] by implication, because their presence can be proved by cognitive criterion.'

⁶⁸ NAV 24.4 (p. 412): *yadi hi dṛṣṭânta-balena vyāptiḥ sādhya-sādhanayoḥ pratipādyeta, tataḥ syād anavayo dṛṣṭântâbhāsaḥ, sva-kāryâkaraṇād, yadā tu pūrva-pravṛtta-sambandha-grāhi-pramāṇa-gocara-smaraṇa-sampādanârthaṁ dṛṣṭântôdāhṛtir iti sthitam, tadânanvayatva-lakṣaṇo na dṛṣṭântasya doṣaḥ, kiṁ tarhi hetor eva, pratibandhasyâdyâpi pramāṇenâpratiṣṭhitatvāt, pratibandhâbhāve cânvayâsiddheḥ. na ca hetu-doṣo 'pi dṛṣṭânte vācyo, 'tiprasaṅgād iti.*—'For if the invariable concomitance between the probandum and the probans could be demonstrated by the force of an example, then [the example] without positive concomitance would be [indeed] a fallacy of the example, because it would not produce its effect, [viz. it would not demonstrate the invariable concomitance between the probandum and the probans]. But when it is established that an exemplification by [adducing] an example serves the purpose of producing a recollection, whose domain is a cognitive criterion grasping the relation that has occurred before, then the characteristic of being without positive concomitance is not the defect of example, but of the logical reason itself, because the invariable connection has not been determined by cognitive criterion until now; and if there is no invariable connection, then positive concomitance is not proved [either]. And the defect of the logical reason should not be taught in [the case of] (*sc.* should not be blamed on) the example, because that would have too far-reaching consequences.'

⁶⁹ NAV 25.3 (p. 416): *ayuktaś câyaṁ vaktum, avyatirekitāyā hetu-doṣatvāt. yadi hi dṛṣṭânta-balenâiva vyatirekaḥ pratipādyeta, tadā tathā-vidha-sāmarthya-vikalasya tad-ābhāsatā yujyeta, na câtad asti, prāk-pravṛtta-sambandha-grahaṇa-pravaṇa-pramāṇa-gocara-smaraṇa-sampādan ârthaṁ*

dṛṣṭântôpādānāt. na hy ekatra yo yad-abhāve na dṛṣṭaḥ, sa tad-abhāve na bhavatîti pratibandha-grāhi-pramāṇa-vyatirekeṇa sidhyaty, atiprasaṅgāt. tasmād asiddha-pratibandhasya hetor evâyaṁ doṣo, na dṛṣṭântasyêti.—'It is improper to say so, because if there were no negative concomitance, then that would be the defect of the logical reason. For if negative concomitance could be demonstrated by the force of the example alone, then [an example] lacking the efficacy of this kind, [viz. incapable of demonstrating negative concomitance], would be justified as the fallacy of this [example], but that is not the case, because the example is mentioned in order to produce a recollection the domain of which

is a cognitive criterion—disposed towards grasping the relation [between the probandum, the probans and the logical reason]—that occurred previously. For [the example] is not established without a cognitive criterion that grasps the invariable connection [in the form]: "If [at least] in one case, when *y* is absent, *x* is not seen, then *x* does not occur, when *y* is absent," because that would have too far-reaching consequences. Therefore, that is the defect of the logical reason, alone, whose invariable connection is not proved, not [the defect] of the example.'

[70] NBṬ 3.8 (p.188.2): *vyāpti-sādhanasya pramāṇasya viṣayo dṛṣṭântaḥ.*—'The logical reason is the province of cognitive criterion that establishes the invariable concomitance'. Cf. also NBṬ 3.126 (p. 242.6): *ato 'nvayârtho dṛṣṭântas.*

[71] Re. [S8] and [S9], cf. NAV 24.4 (p. 412): *tathâpradarśitânvaya-viparītânvayāv api na dṛṣṭântâbhāsatāṁ svī-kuruto, 'nvayâpradarśanasya viparyastânvaya-pradarśanasya ca vaktṛ-doṣatvāt, tad-doṣa-dvareṇâpi dṛṣṭântâbhāsa-pratipādane tad-iyattā viśīryeta, vaktṛ-doṣāṇām ānantyāt.*— 'Similarly, both [the example] with unindicated positive concomitance and [the example] with inverted positive concomitance do not secure the status of the fallacy of the logical reason, because not indicating positive concomitance as well as indicating positive concomitance as inverted are the defects [on the part] of the speaker. If the demonstration of fallacies of the logical reason [were carried out] by taking into account the defects of this [speaker] as well, the limited number of those [fallacies] would be shattered, because defects of the speaker [can be] infinite.' Similarly, re. [V8] and [V9], see NAV 25.4 (p. 417): *vyatirekâpradarśanaṁ viparīta-vyatireka-pradarśanaṁ ca na vastuno doṣaḥ, kiṁ tarhi vacana-kuśalatā-vikalasyâbhidhāyakasya.*

[72] PVSV, p. 186.19 (= Gnoli: 18.11) on PV 3.27cd found in NAV 25.4 (p. 417): *kiṁ ca, yeṣāṁ bhavatām ado darśanam: yad uta svârthânumāna-kāle svayaṁ hetu-darśana-mātrāt sādhya-pratīteḥ parârthânumānâvasare 'pi hetu-pratipādanam eva kartavyaṁ "viduṣāṁ vācyo hetur eva hi kevala" iti-vacanāt teṣāṁ "kṛtakatvād" itîyatā hetûpanyāsenâiva sisādhayiṣita-sādhya-siddheḥ samasta-dṛṣṭântâbhāsa-varṇanam api pūrvâpara-vyāhata-vacana-racanā-cāturyam āvir-bhāvayati. āsātāṁ tāvad etau, dṛṣṭântasya sādhanâvayavatvenânabhyupagamāt.*—'Furthermore, yours is that view— namely: inasmuch as, in the time of the inference for oneself, one knows the probandum himself merely by seeing the logical reason, also at the point of the inference for others, only the demonstration of the logical reason should be carried out—on account of the following utterance: "[…] since for scholars simply the logical reason alone is to be stated" [pronounced by you] whose description of all fallacies of the example, as well—inasmuch as the probandum intended to be proved can be proved by specifying the logical reason alone [in the form of] nothing more than: "because it is produced"— demonstrates [your] aptitude for formulations in which antecedent and subsequent statements are contradicted [by each other]. Let us leave therefore these two [fallacious examples [V8] and [V9]] alone, because the example is not accepted as a part of the probans.'

[73] See BALCEROWICZ (2001a: xx–xxi).

[74] NAV 11.1: [*sādharmyeṇa:*] *agnir atra dhūmôpapatter; vaidharmyeṇa: agnir atra, anyathā dhūmânupapatteḥ.*

[75] I discuss it at length in BALCEROWICZ (2003).

[76] In BALCEROWICZ (2001a: esp. xii–xxx), I discuss Dharmakīrti's influence on the NA at length.