The Role of dṛṣṭānta in Dignāga's Logic

Shoryu Katsura, Hiroshima

0. Dignāga discusses example (*dṛṣṭānta*) and pseudo-example (*dṛṣṭāntābhāsa*) in his *Pramāṇasamuccayavṛtti* (henceforth PSV), chapter 4.¹ Most of his discussions in the *svamata* section can be traced back to his earlier work, the *Nyāyamukha*. In the *paramata* section he criticizes the views presented in the *Vādavidhi* attributed to Vasubandhu as well as those of the Naiyāyikas and Vaiśeṣikas.²

¹ The first part of my presentation at the panel in Lausanne, 1999, which dealt with Dignāga's theory of *trairūpya*, has appeared under the title of "Dignāga on *trairūpya* Reconsidered: A Reply to Prof. Oetke," in Festschrift for Dr. Hiromasa Tosaki, *Indo no Bunka to Ronri* (Culture and Logic in India), ed. by Akihiko Akamatsu, University Press of Kyushu, Oct. 2000: 241-266.

² A synopsis of PS/PSV/PST chapter 4:

¹ Dignāga's own views (svamata) on dṛṣṭānta and dṛṣṭāntābhāsa

^{1.1} Dignāga's own views on *dṛṣṭānta* (Derge8b4-9a4/60a2-63a3/212b3-226b3)

^{1.1.1} The *dṛṣṭānta* statement expresses the second and the third characteristics of a valid reason (*hetu*)

^{1.1.2} Two kinds of dṛṣṭānta and their proper formulations

^{1.1.3} Necessity of the two kinds of dṛṣṭānta in a single proof

^{1.1.4} Purpose of *dṛṣṭānta*; components of a proof: reason, pervasion (*vyāpti*) and proposition to be proved (*sādhya*)

^{1.1.5} *dṛṣṭānta*'s independence from the reason

^{1.1.6} Relation between the reason and dṛṣṭānta

^{1.1.7} Critique of Nyāyasūtra 1.1.34

Shoryu Katsura

The aim of this paper is to present a summary of Dignāga's discussions on *dṛṣṭānta* in the *svamata* section, from which we will be able to draw some conclusions about the role of *dṛṣṭānta* in Dignāga's logic.³

- 1. Introducing PS 4.6, Dignāga assumes the following process of 'inference for oneself' (svārthānumāna, 'inference' in short):
- (1) First we ascertain the presence of an inferential mark (*linga*, e.g., smoke) in the object to be inferred (*anumeya*, e.g., the top of a mountain); this is the confirmation of the first of the three characteristics (*trirūpa*) of a valid inferential mark, i.e., *pakṣadharmatva*.

^{1.1.8} Critique of Nyāyasūtra 1.1.35

^{1.1.9} Necessity for the pervasion to be expressed in *dṛṣṭānta* statement

^{1.2.} Dignāga's own views on dṛṣṭāntābhāsa (Derge 9a5/63a3-b1/226b3-227b3)

² Dignāga's critique of the views held by other schools (paramata)

^{2.1} The Vādavidhi views (Derge 9a5-9b1/63b1-64a5/227b3-229a5)

^{2.2} The Naiyāyika views (Derge 9b1-3/64a5-66a3/229a5-236b6)

^{2.3} The Vaiśeșika views (Derge 9b3-4/66a3-7/236b6-237b3)

This portion of PSV has been thoroughly studied by Hidenori Kitagawa in KITAGAWA 1965. He edited two versions of Tibetan translations of PS and PSV and translated them into Japanese with detailed annotations. Muni Jambūvijaya restored the Sanskrit of the beginning portions of PS and PSV chapter 4 in JAMBŪVIJAYA 1966. He translated into Sanskrit the relevant portions of PST in its footnotes. He did the same for the Vaiśe-sika section of this chapter in JAMBŪVIJAYA 1961. Most recently, Wasō Harada translated the beginning portions of PS and PSV chapter 4 (vv.1-5) in HARADA 1999, note 13. I would like to acknowledge my indebtedness to those previous studies. I briefly discussed Dignāga's treatment of dṛṣṭānta in KATSURA 1984. I would also like to thank Prof. E. Steinkellner and his staff at the Austrian Academy of Science for their great help in recovering the fragments of PS and PSV chapter 4.

- (2) Next we recall that we previously experienced elsewhere the presence of the inferential mark in what is similar to the object to be inferred (tattulya, e.g., a kitchen) and its absence in the absence of the property to be inferred (asat, e.g., a lake); this is the confirmation of the second and the third characteristics, viz., anvaya (a positive concomitance) and vyatireka (a negative concomitance).
- (3) Then we can have an ascertainment (niścaya) that the property to be inferred exists in the object to be inferred, as, e.g., that there must be, even though it is imperceptible, a fire at the top of the mountain.⁴

In short, an inferential mark possessing the three characteristics (pakṣadharmatva, anvaya and vyatireka) can produce the ascertainment of a certain state of affairs regarding an object to be inferred.⁵ Dignāga then states PS 4.6 as follows:

[In 'inference for others' (parārthānumāna, 'proof' in short), on the other hand,] with a desire to produce for others the same ascertainment (niścaya) as we ourselves have obtained, we refer to (1) [a reason's (hetu)] being a property of the topic (pakṣa) of a proposition (pakṣadharmatva), (2) [its inseparable] relation (sambandha) [with that which is to be proved] and (3) the [proposition] to be proved (sādhya). Other items should be excluded [from the members of a proof].

⁴ PSV^K 150b5-7: rjes su dpag pa la yan tshul 'di yin par mthon ste | gal te rtags 'di rjes su dpag par bya ba la nes par bzun na | gźan du de dan rigs mthun pa la yod pa ñid dan | med pa la med pa ñid dran par byed pa de'i phyir 'di'i nes pa bskyed par yin no || Cf. PSV^V 61b5, KITAGAWA 1965: 521; PST D223a6: rjes su dpag pa la yan źes ran gi don rjes su dpag pa la'o ||; NMu § 5.5, KATSURA 1981.

⁵ Cf. PS 2.1ab: anumānam dvidhā svārtham trirūpāl lingato 'rthadṛk /

⁶ svaniścayavad anyeṣāṃ niścayotpādanecchayā | pakṣudharmatvasam-bandhasādhyokter anyavarjanam || = NMu v. 13: 如自决定已 「悕他決

Thus the purpose of a logical proof (parārthānumāna) is to produce in the opponent the same kind of ascertainment that is obtained by the proponent through an inference (svārthānumāna). This indicates a close parallelism between an inference and a proof.

Commenting upon the above verse, Dignāga clarifies the roles of the three members (avayava) of his logical proof, viz., 'proposition/thesis' (pakṣa), 'reason' (hetu) and 'example' (dṛṣṭānta) in the following manner:

- (1) The statement of a proposition (pakṣa-vacana) is made in order to indicate the state of affairs to be inferred (anumeya).
- (2) The statement of a reason (hetu-vacana) is made in order to indicate that the reason is a property of the topic under discussion (pakṣadharmatva).
- (3) The statement of an example (*dṛṣṭānta-vacana*) is made in order to indicate that the reason is inseparably related (*avinābhāva*) to the property to be inferred (*anumeya*).

Then he excludes 'desire to know' $(jij\tilde{n}as\bar{a})$, 'application' (upana-ya), 'conclusion' (nigamana) and others from the members of a proof and concludes that there are no members of a proof other than the above three.⁷

定生 説宗法相應 所立餘遠離. Quoted in PVA 487,31; pādas cd in VNT 64,22 and NV 130,5.

Cf. also Hetubindu of Dharmakīrti, ed. by STEINKELLNER (Wien: 1967) 6,17-18: svaniścayavad anyeṣām api niścayotpādanāya ca sādhanam ucyate /; Prasannapadā of Candrakīrti, ed. by L. de La Vallée Poussin (St. Petersburg: 1903-13) 19,1-2: yo hi yam artham pratijānīte, tena svaniścayavad anyeṣām niścayotpādanecchayā yayopapattyāsāv artho 'dhigataḥ saivopapattiḥ parasmāy upadeṣṭavyā /; Nyāyāvatāra of Siddhasena Divākara (ed. by S.R. Banerjee, Calcutta ²1981) v. 10: svaniścayavad anyeṣām niścayotpādanam buddhaiḥ / parārtham mānam ākhyātam vākyam tadupacārataḥ //.

⁷ PSV^K 150b8-151a2: gan gi phyir phyogs kyi chos ñid bstan pa'i don du gtan tshigs brjod pa dan | yan de'i rjes su dpag par bya ba dan med na

The statement of a proposition is actually the re-statement of the ascertainment obtained by one who has inferred for himself, while the statement of a reason corresponds to the ascertainment of the first characteristic (i.e., pakṣadharmatva) of a valid mark in an inferential process. Then the statement of an example, which expresses an inseparable relation (sambandhalavinābhāva), must correspond to the recollection of anvaya and vyatireka. This is the case because, as I have determined elsewhere, anvaya and vyatireka with eva-restriction represent such an inseparable relation between a logical mark and the property to be inferred, in short, the pervasion (vyāpti) of the former by the latter. Thus it is clear that there exists an apparent parallelism between an inference and a proof.

According to Dignāga the role of the statement of an example (dṛṣṭānta-vacanā) in a proof is to present the 'inseparable' (avinābhāva) relation (sambandha) between a reason (hetu, i.e., a proving property, sādhana-dharma) and a property to be proved (sādhya-dharma), namely, the relation in which the former does not exist (a-bhāva) without (vinā) the latter, for example, smoke does not exist without a fire. The same kind of relation holds between a valid logical mark (linga) and the marked (lingin, i.e., that which is to be inferred) in the case of an inference. It is further called 'restriction' (niyama), 'pervasion' (vyāpti), 'concomitance' (anubandha), etc. It is to be noted that such a relation ascertains the

mi 'byun ba'i don du **dpe brjod pa** dan | rjes su dpag par bya ba yin pa'i don du **phyogs brjod pa** ste rjes su dpag pa'i yan lag gźan yod pa ma yin no || de'i phyir gźan dag ni śes pa la sogs pa rnams dan ñe bar sbyor ba dan mjug bsdu ba dag 'dir spans pa yin no ||. Cf. PSV 61b7-62a1, KITAGAWA 1965: 521-522; NMu § 5.5, KATSURA 1981.

⁸ See KATSURA 2000.

⁹ See PS 2.21: linge lingī bhavaty eva linginy evetarat punaḥ | niyamasya viparyāse 'sambandho lingalinginoḥ ||. Quoted in Arcaṭa's Hetubindutīkā (ed. by Sanghavi, Baroda 1949) 18,18-19.

second and the third characteristics (anvaya and vyatireka) of a valid reason (hetu) or an inferential mark (linga).

2. With the theory of the 'inseparable relation' or 'pervasion' as the foundation of his system of logic, Dignāga is greatly concerned with the problem of how to formulate each member of a proof, especially, that of the example (*dṛṣṭānta*). In PS 4.1 he states:

It has been said that a valid reason (hetu) possesses the three characteristics ($trir\bar{u}pa$). According to convention ($r\bar{u}dhi$), however, it (i.e., the reason) is established as a property of the topic of a proposition (pakṣadharma) only. The remaining two characteristics [of a valid reason] are [to be] presented by an example [statement] ($drṣt\bar{a}nta$).

Here Dignāga seems to be criticizing some certain unsatisfactory formulations of a proof given by other Indian logicians of his time. In this connection, I assume that he is presupposing, as for example, the following formulation:

[proposition] anityah sabdah

[reason] kṛtakatvāt

[example] kṛtako ghaṭo 'nityo dṛṣṭaḥ [application] tathā ca kṛtakaḥ śabdaḥ

[conclusion] tasmāt kṛtakatvād anityah śabdah

[Proof 1]

According to Dignāga, the first characteristic of a valid reason, i.e., pakṣadharmatva, is implicitly stated in the statement of the reason of the above Proof 1 because the word śabdasya is implicitly understood; the statement in its expanded form is śabdasya kṛtakatvāt. The second and the third characteristics (anvaya and vyati-

trirūpo hetur ity uktam pakṣadharme tu saṃsthitaḥ / rūḍhe rūpadva-yaṃ śeṣam dṛṣṭāntena pradarśyate //. Quoted in VNŢ 88,26-27 with a variant reading.

reka), however, are not mentioned at all in the proof and must in a valid proof be formulated in the statement of an example. Thus it is clear that in a proof of Dignāga's, the statement of a reason expresses the first characteristic (pakṣadharmatva) and the statement of an example expresses the second and the third characteristics (anvaya and vyatireka).

Furthermore, Dignāga states in PS 4.2:

An example is that [object] in which a reason (hetu) is shown to be followed by a property to be proved (sādhya) or to be absent in the absence of a property to be proved; it is of two kinds: 'similar' (sādharmya) and another (i.e., 'dissimilar' vaidharmya).¹¹

In this connection it is to be noted that Dignāga uses the word dṛṣṭānta in two distinct meanings, viz., an object (artha) as an example for a proof in PS 4.2 and a statement (vacana) that presents an example together with a general law (i.e., an inseparable relation or pervasion between a reason and a property to be proved) in PS 4.1. This is clear from his own comment that yatra in PS 4.2c refers to an object to be referred to (abhidheya). Jinendrabuddhi justifies Dignāga's usage by way of stating that there is a 'superimposition of identity' (abhedopacāra) between the expression (abhidhāna) and the expressed (abhidheya). Thus the designation dṛṣṭānta, which refers to an example object (artha, i.e., abhidheya), is meta-

¹¹ sādhyenānugamo hetoḥ sādhyābhāve ca nāstitā | khyāpyate yatra dṛṣṭāntaḥ sa sādharmyetaro dvidhā || Cf. NMu v. 11 說因宗所隨 宗無因不有 此二名譬喻 餘皆此相似. Quoted in Daśavaikālikasūtrahāri-bhadrīvṛtti 34B mentioned in JAMBŪVIJAYA 1966 Appendix: 133; cf. NMu v. 4 = PS 3.15 mentioned in footnote 23.

¹² PSV^K 148a7: gan la źes brjod par bya ba la thams cad la 'gro ba ni rjes su 'gro ba'o // PSV^V D60a4: rjes su 'gro ba thams cad du 'gro'o // gan źes pa ni brjod par bya'o // (sarvatra gamo 'nugamaḥ / yatreti abhi-dheye /)

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phorically applied to the statement of an example (vacana, i.e., $abhidh\bar{a}na$).¹³

The Nyāyasūtra (henceforth NSū), on the other hand, distinguishes an example (dṛṣṭānta) from exemplification (udāharaṇa), i.e., the third member (avayava) of the five-membered proof. It may be a weak point in Dignāga's system of logic that he uses one and the same technical term in more than one meaning. For example, he applies pakṣa to both the content of a proposition to be proved and

PST D213a2-4: de'i phyir de'i don du dpe brjod par bya ba'o źes pa daṅ | dpe yis rab tu gsal bar byed || ces kyaṅ no || rjod par byed pa daṅ brjod par bya ba dag tha mi dad par ñe bar btags pa la 'di skad ces brjod do || gźan du na gaṅ la żes pa brjod par bya ba la żes pa'i tshig las don kho na dpe ñid de | don gyis gsal bar byed pa yaṅ ma yin no żes pas 'di mi rigs par 'gyur ro || de'i phyir tha mi dad pa ñe bar btags pa las dpe rjod par byed pa'i naṅ tshul can gyi tshig ni 'dir dpe'i sgras brjod do || (atas tadarthaṃ dṛṣṭānta ucyatām iti dṛṣṭāntena prakāśyata iti ca | abhidhānābhidheyayor abhedopacārād evam uktam | anyathā yatrety abhidheya iti vacanād arthasyaiva dṛṣṭāntatā | na cārthena prakāśyata ity ayuktam etat syāt | tasmād abhedopacārād dṛṣṭāntābhidhāyivacanam atra dṛṣṭāntaśabadenoktam |)

PST D213b1-2: gan la zes pa brjod par bya ba la zes pa 'dis don dpe ñid gsuns so || tshig ni de'i rjod par byed pa ñid kyi phyir ñe bar btags pa'i dpe'o || 'di yan | dpe yis rab tu bstan par bya || zes pa 'dis snar ñid rig par byas zin to || (yatrety abhidheya ity anenārthasya dṛṣṭāntatām āha | vacanam tu tadabhidhāyitvād upucāreṇa dṛṣṭāntaḥ | etac ca dṛṣṭāntena pradarsyata ity anena prāg evu veditam |)

See NSū 1.1.25: laukikaparīkṣakāṇāṃ yasminn arthe buddhisāmyaṃ sa dṛṣṭāntaḥ //, and NSū 1.1.36: sādhyasādharmyāt taddharmabhāvī dṛṣṭānta udāharaṇam //. Uddyotakara certainly notices this distinction. See NV ad NSü 1.1.36: nanu ca karaṇakārakaparigrahāt vacanam udāharaṇam, dṛṣṭāntaś cārthaḥ; na cānayoḥ sāmānādhikaraṇyaṃ yujyate, na hi viṣāṇādimad ity abhidhānaṃ gavā sāmānādhikaraṇaṃ bhavati / naiṣa doṣaḥ, vacanaviṣeṣaṇatvena dṛṣṭāntasyopādānāt, na svatantro dṛṣṭānta udāharaṇam /

the statement of such a proposition in a proof formulation; the latter (i.e., the first member of a proof) is called $pratij\tilde{n}a$ in NSū.

It is to be noted in passing that Dignāga clearly states that the main purpose of an example statement is to indicate an external object (bāhyārtha) as an example. This seems to suggest that as long as he is discussing logic and epistemology, he is assuming external reality. Furthermore, it was most likely Dignāga who classified examples into two types and named them accordingly, i.e., 'a similar example' (sādharmya-dṛṣṭānta) and 'a dissimilar example' (vai-dharmya-dṛṣṭānta). His convention was generally followed by Indian logicians after him.

2.1. Now let us see how Dignāga formulates his example statement. He assumes the following formulation as a valid proof:

[proposition] anityah śabdah

[reason] prayatnānatarīyakatvāt

[similar ex.] yat prayatnānantarīyakam tad anityam dṛṣṭam,

yathā ghaṭaḥ

[dissimilar ex.] (yan) nityam (tad) aprayatnānantarīyakam dṛṣṭam, yathākāśam

[Proof 2]¹⁶

¹⁵ PSV^K 148b6: phyi rol gyi don la bstan pa ni dpe la gtso bo yin no ('bā-hyārtha-pradarśanaṃ hi nidarśye pradhānam).

¹⁶ PSV^K 148a7-8: re żig chos mthun pas ni sgra mi rtag ste rtsol ba las byun ba'i phyir ro || gan rtsol ba las byun ba de ni mi rtag par mthon ste dper na bum pa bźin żes bya ba dan | chos mi mthun pas rtag pa ni rtsol ba las byun ba ma yin par mthon ste nam mkha' bźin żes bya ba lta bu'o || ('sādharmyena tāvad anityah śabdah prayatnāntarīyakatvāt | yad dhi prayatnānatrīyakam tad anityam dṛṣṭam yathā ghaṭa iti | vaidharmyena nityam aprayatnānatrīyakam dṛṣṭam yathākāśam iti |).

When we compare the two Proofs quoted above, it is clear that in addition to the absence of the statements of application and conclusion in Proof 2 the difference lies in the statement of the example (dṛṣṭānta). Proof 1 simply refers to an object, i.e., a pot, which is both 'produced' (kṛtaka) and 'non-eternal', in other words, possesses both the proving property (sādhanadharma/hetu) and the property to be proved (sādhyadharma). As Dignāga criticizes, it does not mention any relation (sambandha) between the two properties. Proof 2, on the other hand, mentions such a relation, namely, "Whatever is produced by human effort is non-eternal" (or whatever is P is Q) in a similar example and "Whatever is eternal (i.e., not non-eternal) is not produced by human effort" (or whatever is not Q is not P) in a dissimilar example. It is to be noted that these two statements are logically equivalent because they are in contraposition. In any case Dignāga's example statement, whether similar or dissimilar, expresses the pervasion (vyāpti) of a proving property by a property to be proven.¹⁷

[proposition] anityah sabdah

[reason] utpattidharmakatvāt

[exemplification] utpattidharmakam sthālyādi dravyam nityam

dṛṣṭam

[application] na ca tathānutpattidharmakaḥ śabdaḥ, kim tarhi

utpattidharmakah

[conclusion] tasmād utpattidharmakatvād anityaḥ śabdaḥ

[Proof a]

[proposition] anityaḥ śabdaḥ

Pakṣilasvāmin/Vātsyāyana, who must have been active before Dignāga, gives two parallel proofs which he seems to regard as independent, though both prove the same proposition by the same reason. Dignāga appears to have incorporated the two proofs into one by adopting both similar and dissimilar examples into one proof. *Nyāyabhāsya* ad NSū 1.1.39:

We should not ignore the fact that the word *dṛṣṭa* (observed) qualifies those apparently universal relations mentioned in the example statements of Proof 2, so that their meaning amounts to: It is observed that whatever is P is Q, or it is observed that whatever is not Q is not P. This suggests that Dignāga's statement of pervasion does not necessarily imply a universal law but rather assumes a general law derived from our observations or experiences; in other words, it is a kind of hypothetical proposition derived by induction. In order to justify such an inductive process Dignāga needed to present both positive and negative examples in one set of a proof. Thus, I think that Dignāga's presentation of example statements clearly indicate the inductive nature of his logic.

2.2. Now let us go back to PS 4.2: "An example is that [object] in which the reason (hetu) is shown to be followed by the property to be proved (sādhya) or to be absent in the absence of the property to be proved." This contains Dignāga's suggestion of how to formulate similar and dissimilar examples. Namely, a similar example should be formulated by the reason being followed by the property to be proved (hetoḥ sādhyena anugamaḥ), and a dissimilar example by the reason's absence in the absence of the property to be proved (sādhyābhāve hetos nāstitā). Their formulations may be called an-

[reason] utpattidharmakatvāt

[exemplification] anutpattidharmakam ātmādi dravyam anityam

[application] tathā cotpattidharmakaḥ śabdaḥ

[conclusion] tasmād utpattidharmakatvād anityaḥ śabdaḥ

[Proof b]

¹⁸ I would like to suggest an etymology of the word *dṛṣṭānta*, which is 'the end' or the culminating point (*anta*) of 'observation' (*dṛṣṭa*). It fits well with the inductive nature of Indian logic.

vaya (continued presence) and vyatireka (continued absence) respectively, for they can be put into the following formulae:

When the reason (P) is present, the property to be proved (Q) is present.

When the property to be proved (Q) is absent, the reason (P) is absent.

Since P is a reason and Q is a property to be proved by that reason, one can rephrase and symbolize the above formulae in the following manner:

If x is P, then x is Q. $Px \supset Qx$

If x is not Q, then x is not P. $-Qx \supset -Px$

Let us compare the above formulae with anvaya and vyatireka in the trairūpya formulae. PS 2.5cd reads: "[A valid inferential mark's (linga) presence in what is similar to the [object to be inferred] and its absence in the absence [of the property to be inferred)" ([lingasya] tattulye sadbhāvo nāstitāsati). If we assume that 'what is similar to the object to be inferred (anumeya)' and 'the absence of the property to be inferred' in PS 2.5cd respectively correspond to the traditional concepts of a set of similar examples (sapakṣa) and a set of dissimilar ones (asapakṣa/vipakṣa), they can be reformulated in the following manner:

When the property to be proved (Q) is present, the inferential mark (P) is present.

When the property to be proved (Q) is not present, the inferential mark (P) is not present.

(N.B.: an inferential mark is equivalent to the reason in a proof.)

When we compare them with the formulae of the two examples mentioned above, the difference lies in the anvaya formula,

¹⁹ For a detailed discussion of the *trairūpya* formulae according to Dignāga, see KATSURA 2000.

namely, the order of P and Q are reversed. As a matter of fact, the anvaya and vyatireka of trairūpya, rather than those of the examples, represent the more orthodox formulation of the 'Indian Principle of Inductive Reasoning' (named by George Cardona): $X \to Y$ and $-X \to -Y$.

anvaya and vyatireka of the trairūpya formulae show how a valid inferential mark is distributed in our Induction Domain (à la Richard Hayes) consisting of a set of similar examples and a set of dissimilar examples. If P is found in the domain of Q and not in the domain of -Q, we can assume a certain relation between P and Q. For example, P (e.g., smoke) is a result of Q (e.g., a fire). In the case of trairūpya, P is discovered to be the valid logical mark (linga) of the property to be proved, Q. In this connection, following Vasubandhu's lead, Dignaga considered that the valid mark/reason (P) is inseparably related (nāntarīyaka/avinābhāvin) to the property to be proved (Q). In other words, in order to be a valid mark/reason, the domain of P should be restricted to and included in the domain of Q. He named such a relation 'pervasion' (vyāpti) of P by Q and successfully formulated it by introducing the restrictive particle eva into the formulae of anvaya and vyatireka in the following manner:

Only (eva) when the property to be proved (Q) is present, is the inferential mark (P) present.

When the property to be proved (Q) is not present, the inferential mark (P) is never (naiva) present.

It is to be noted that the above formulae present not a logical but rather an ontological relation between two items P and Q, though we can easily derive from such a relation the kind of general law that whatever is P is Q. The purpose of Dignāga's example statements is precisely to formulate such a general law; the order of P and Q is reversed there in order to present it in a logically proper way. In order to avoid confusion, the anvaya and vyatireka expressed in the two examples are called by later authors anvaya-

vyāpti (a positive pervasion) and vyatireka-vyāpti (a negative pervasion) respectively.

It is to be noted in passing that Dignāga does not give any argument for justifying the introduction of the *eva* restriction; in other words, he never tried to justify the very foundation of his theory of *vyāpti*. Considering Dignāga's allusion to *anvaya* and *vyatireka* in PSV chapter 5, I am inclined to think that he proposed *vyāpti* or a general law solely on the basis of the fact that no counter-example is observed (*adarśanamātreṇa*) in the domain of dissimilar examples.²⁰ It suggests the hypothetical nature of the deductive part of Dignāga's logic.

2.3. Let us see again how Dignāga actually formulates the logical relation or *vyāpti* in the example statements of Proof 2.

[similar ex.] yat prayatnānantarīyakam tad anityam dṛṣṭam, yathā ghaṭaḥ

[dissimilar ex.] yan nityam tad aprayatnānantarīyakam dṛṣṭam, yathākāśam

It is clear that he uses the relative pronouns yad and tad in order to express a kind of universal relation: Whatever is P is Q, or whatever is not Q is not P. He also indicates that the same relation can be expressed by inserting the restrictive particle eva in the appropriate place.²¹ For example,

[similar ex.] anityam eva prayatnānantarīyakam, yathā ghaṭo vidyuc ca

[dissimilar ex.] aprayatnānantarīyakam eva nityam, yathākāsam

See my article, "Dignāga and Dharmakīrti on adarśanamātra and an-upalabdhi," Asiatische Studien/Études Asiatiques 46/1 (1992) 222-231.

²¹ See PSV^K 148b8-149a3, which is to be discussed later.

In this context the restrictive particle eva behaves almost like a 'universal quantifier'. Generally speaking, Dignāga admits the following two ways of expressing the logical relation or vyāpti:

```
(1) yad P tad Q / & yad -Q tad -P /
(2) Q eva P / & -P eva -O /
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Dignāga is very much concerned with the problem of how to formulate a logical proof in the proper way. We can now present his formulation in a formal manner. 'a' stands for the topic of a proposition (pakṣa) or the object of inference (anumeya); P stands for the proving property (sādhana-dharma), a reason (hetu), or an inferential mark (linga); Q stands for the property to be proved (sādhyadharma); 's' stands for the similar example (sādharmya-dṛṣṭānta) or the member of a set of similar examples (sapakṣa); and 'v' stands for the dissimilar example (vaidharmya-dṛṣṭānta) or the member of a set of dissimilar examples (vipakṣa). It is to be noted that in Dignaga's system of logic 'a', being the topic under examination, is not a part of our Induction Domain which consists of sapakṣa and vipakṣa. Furthermore, the underlying structure of an Indian proof statement is: "The property-possessor (dharmin) 'a' possesses the property (dharma) P"; the notion of 'possession' is expressed by the genitive or the locative case-ending or by the suffixes of possession, i.e., -mat and -vat, or even by the convention of elision of those suffixes (matup-lopa).

[proposition] a possesses Q.

[reason] Because a possesses P.

[similar ex.] It is observed that whatever possesses P possesses Q as, e.g., s.

[dissimilar ex.] It is observed that whatever does not possess Q does not possess P as, e.g., v.

We can translate the above formulae into the following standard symbolism, but it is impossible to convey the sense of 'it is observed that ...' without introducing some device of Modal Logic:

```
[proposition] Qa

[reason] Pa

[similar ex.] (x)(Px \supset Qx) \& (Ex)((Px \& Qx) \& (x \neq a))

[dissimilar ex.] (x)(-Qx \supset -Px) \& (Ex)((-Px \& -Qx) \& (x \neq a))
```

Based on his conviction that a valid proof should be formulated in the way discussed above, Dignāga criticizes what he regards as the wrong formulations of proof given by rival schools. For example, he picks up the following anonymous proof:²²

[proposition] nityaḥ śabdaḥ (Sound is eternal.)
[reason] sarvasya anityatvāt (Because everything is non-eternal.)

[Proof 3]

On first sight, the proposition and the reason of Proof 3 appear to be incompatible with each other (viruddha). However, if one takes into account that the topic of a proposition is not included in our Induction Domain in traditional Indian logic, Proof 3 makes sense when its reason is interpreted in the sense that everything except for sound (i.e., the topic of the proposition) is non-eternal. In this connection, Dignāga points out that the reason of Proof 3 does not really express the reason but actually expresses the dissimilar example. Then he proposes the following formulation:

```
[proposition] nityaḥ śabdaḥ (Sound is eternal.)
[reason] (śabdasya) asarvatvāt (Because sound is not everything.)
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[dissimilar ex.] sarvam anityam, yathā ghaṭaḥ (Everything is noneternal as, e.g., a pot.)

[Proof 4]

²² NMu § 1.4, KATSURA 1977 and PS 3.6: hetupratijñāvyāghāte pratijñādoṣa ity asat / sa hi dṛṣṭānta evokto vaidharmyeṇāsuśikṣitaiḥ // Quoted in PVA 563,29.

Having criticized the above reason from various points of view, Dingāga proposes to re-formulate the dissimilar example by following the basic structure discussed above, namely, the absence of the property to be proved (i.e., nityatva) should be followed by the absence of the reason (asarvatva). Thus, we obtain the following formulation:

[proposition] nityaḥ śabdaḥ (Sound is eternal.)

[reason] (śabdasya) asarvatvāt (Because sound is not

everything.)

[dissimilar ex.] yad anityam tat sarvam, yathā ghaṭaḥ (Whatever is not eternal is everything as, e.g., a pot.)

[Proof 5]

Further, Dignāga criticizes the formulation of the following proof:23

[proposition] anityaḥ śabdaḥ

[reason] kṛtakasya anityatvāt, nityasya akṛtakatvāc ca

[Proof 6]

According to Dignāga, this apparently correct proof should be reformulated, for the two reasons mentioned in Proof 6 actually represent the similar and dissimilar examples. Thus we obtain the following formulation:

[proposition] anityaḥ śabdaḥ

[reason] kṛtakatvāt

[similar ex.] yat kṛtakaṃ tad anityam, yathā ghaṭaḥ

[dissimilar ex.] yan nityam tad akṛtakam, yathākāśam

[Proof 7]

NMu § 2.8, KATSURA 1978. NMu v. 4: 説因宗所隨 宗無因不有依第五顕喻 由合故知因 = PS 3.15: hetoḥ sādhyānvayo yatrābhāve 'bhāvaś ca kathyate | pañcamyā tatra dṛṣṭānto hetus tūpanayān mataḥ ||. (Quoted in PVA 647,15; cf. VNŢ 82,25-26)

Unlike Dignāga's theory of pervasion (*vyāpti*), which was on the whole accepted by the post-Dignāga Indian logicians whether they were Buddhist or not, Dignāga's rigid formulation of a logical proof does not seem to have gained much popularity. Most non-Buddhist logicians continued to adhere to the traditional five-membered proof formulation, while Dharmakīrti, as is well known, adopted a new proof formulation which consisted of the statements of the pervasion (*vyāpti*) and the reason's being a property of the topic of the proposition (*pakṣadharmatā*); just this formulation was adopted by the post-Dharmakīrti Buddhist logicians. Here is a sample of Dharmakīrti's formulation.

[vyāpti] yat sat kṛtakaṇ vā, tat sarvam anityam, yathā ghaṭādiḥ [pakṣadharmatā] san kṛtako vā śabdaḥ²⁴

[Proof 8]

3. In PS 4.3 and its Vrtti Dignāga attempts to characterize the two examples by similarity (*sādharmya*) and dissimilarity (*vaidharmya*) or by implicative negation (*paryudāsa*) and simple negation (*prasajya-pratiṣedha*).

In [the presence of] the proving property ($s\bar{a}dhana$, i.e., the reason) the property to be proved ($s\bar{a}dhya$) should be presented affirmatively and [the reason should be shown to be] absent when the property to be proved is absent. Such being the case, the implicative negation ($paryud\bar{a}sa$) [of the similar example] and the simple negation (nisedha) [of the dissimilar example] are of different characteristics.²⁵

²⁴ Cf. Vādanyāya of Dharmakīrti, ed. by M.T. Much, Vienna, 1991: 1.

PS^K 4.3: bsgrub bya bsgrub las sgrub pa yis || bstan bya bsgrub bya med la med || de lta yin na ma yin par || dgag pa msthan ñid mi mthun no || ('vidhinā sādhane sādhyaṇ khyāpyaṃ sādhye 'sati tv asat | evaṃ sati paryudāso niṣedhaś ca vilakṣaṇau ||). Cf. PSV^K 148a8-b3; PSV^V D60a6-7; KITAGAWA 1965: 513-4.

The first half of the verse repeats the same formulation of the two examples, i.e., anvaya and vyatireka, as presented in PS 4.2. When Dignāga refers to the two kinds of negation in the second half, he must have in mind the two kinds of examples in Proof 2 (given above) and the negative phrases, such as a-nityam in the similar example and na anityam, which is actually expressed as nityam, in consideration of the double negation, in the dissimilar example. According to Dignaga, the negative particle a- of a-nityam (noneternal) in the similar example should be interpreted as an implicative negation (paryudāsa), so that the negation of eternal things (nitya) implies/affirms the existence of non-eternal (anitya) things. The negative particle na of na anityam (not non-eternal, i.e., eternal) in the dissimilar example, on the other hand, should be interpreted as a simple negation (prasajyapratisedha), so that the negation of non-eternal things does not imply/affirm the existence of eternal things, such as ether (ākāśa).

Thus Dignāga concludes that the dissimilar example of Proof 2 is meaningful even for those who do not acknowledge the existence of eternal things, such as the Sautrāntikas. This implies that for Dignāga the dissimilar example does not necessarily need an objective support in reality, provided that there is an objective support for the similar example.

3.1. A question arises: Why are the two examples formulated in the way explained in PS 4.2 and 3? In other words, if a similar example is formulated by "The reason is followed by the property to

PSV^K 148b2-3: de lta na sňa ma la ni ma yin pa yin la phyi ma la ni med par dgag pa yin no žes smras pa yin no // de ltar na rtag pa khas ma blaňs kyaň chos mi mthun pa'i dpe grub pa yin no // ('evaṃ ca pūrvatra paryudāsaḥ uttaratra tu prasajyapratiṣedha ity uktaḥ / evaṃ ca nityān-abhyupagamasyāpi vaidharmyadṛṣṭāntaḥ siddhaḥ). Cf. PSV^V D60a6-7, KITAGAWA 1965: 513-514.

be proved (hetoh sādhyenānugamaḥ)" or "Px \supset Qx", why is the dissimilar example formulated by "In the absence of the property to be proved the reason is absent (sādhyābhāve hetor nāstitā)" or "-Qx \supset -Px", not by "In the absence of the reason, the property to be proved is absent (hetvabhāve sādhyasya nāstitā)" or "-Px \supset -Qx"? It is apparent that the law of contraposition was not known to the opponents, and it was perhaps Dignāga who for the first time among Indian logicians came to realize that such a law should be applied to the formulations of similar and dissimilar examples; unfortunately, however, he does not give either the name or definition of the law.

In any case, Dignāga answers to the above question: Only in that way, not in the reversed way (na viparyayāt), can we show that a reason under consideration possesses the second and the third characteristics of a valid reason, namely, "the reason's presence in a set of similar instances only (hetoḥ sapakṣa eva sattvam)" and "its definite absence in the absence of the property to be proved (sādhyābhāve cāsattvam eva)". Here again we see the definitive role played by the restrictive particle eva in equating the trairūpya formula with the formulation of the two examples.

An objection arises: In that case an actual object like a pot cannot be regarded as a part of an example formulation because with ref-

PSV^K 148b3-4: gal te gcig la ni gtan tshigs bsgrub bya'i rjes su 'gro bar bśad la | gñis pa la ni bsgrub bya med na gtan tshigs med pa yin gyi gtan tshigs med na bsgrub bya med pa ma yin no żes bya ba la rgyu ci żig yod ce na | de lta na gtan tshigs mthun pa'i phyogs ñid la yod pa dan | bsgrub bya med pa la med pa ñid bstan par nus pa yin gyi bzlog pas ni ma yin no || ('kiṃ punaḥ kāraṇam ekatra sādhyānugamo hetoḥ ukto dvitīye tu sādhyābhāve hetor nāstitā, na hetvabhāve sādhyasya nāstiteti | evaṃ hi hetoḥ sapakṣa eva sattvaṃ sādhyābhāve cāsattvam eva śakyaṃ darśayituṃ na viparyayāt |). The latter half is quoted in VNŢ 8,23-24. Cf. PSV D60a7-b1; KITAGAWA 1965: 514.

erence to an actual object we see that a reason is followed by a property to be proved and vice versa.

Dignāga rejects the objection: Just as in the statement of a reason a particular property, such as 'being a product', is not intended, similarly in the statement of an example a particular object, such as a pot, is not meant to be followed by a property to be proved, such as 'non-eternity'; thus, the objection is irrelevant. He further states that the main purpose in referring to a particular object like a pot is to indicate some positive support in external reality.²⁸

3.2. In PS 4.4 Dignāga points out what kind of undesirable consequences result if, as suggested by the above question, both similar and dissimilar examples are formulated in the same manner, namely, "Px \supset Qx" and "-Px \supset -Qx" or "Qx \supset Px" and "-Qx \supset -Px".

In this connection, if [both similar and dissimilar examples are formulated] in the same way of concomitance, even if unmentioned [as a property to be proved], 'eternity' (nityatā) would be proved (kṛta) by means of the property of 'not being a product' (akṛta-katva), and the property of 'being a result' (kāryatā, i.e., a product) by means of the property of 'cessation' (nāśitva, i.e., non-eternity);

PSV^K 148b4-6: 'on te de ltar na bum pa dper mi bya ste | de la ni ci ltar gtan tshigs bsgrub bya'i rjes su 'gro ba de bźin du | bsgrub bya yan gtan tshigs kyi rjes su 'gro ba yin no źe na | ma yin te byas pa'i khyad par gtan tshigs su brjod par 'dod pa ma yin pa bźin du bum pa la bsgrub bya rjes su 'gro ba brjod pa ma yin pa'i phyir ro || phyi rol gyi don la bstan pa ni dpe la gtso bo yin no || ('evaṃ tarhi ghaṭo 'nudāharaṇam | tatra hi yathā hetoḥ sādhyānugamas tathā sādhyasyāpi hetvanugama iti cet | na, kṛtakatvaviśeṣo 'vivakṣitahetur iva ghaṭe sādhyānugamasyāvivakṣitatvāt | bāhyārthapradarśanaṃ hi nidarśye pradhānam |). Cf. PSV D60b1-3; KITAGAWA 1965: 514-515.

and [that which does] not pervade [the domain of the property to be proved] would not be accepted [as a valid reason].²⁹

He presupposes the following proof formulae which correspond to Hetucakra No. 2:

[proposition] anityah śabdah

[reason]

kṛtakatvāt

[similar ex.]

yat krtakanı tad anityam, yathā ghaţaḥ

[dissimilar ex.] yan nityam tad akṛtakam, yathākāśam

[Proof 8]

Dignāga points out that if the dissimilar example of Proof 8 were formulated in the reverse way as yad akṛtatakaṃ tan nityam, then instead of 'non-eternity' (anityatā) 'eternity' would be proved by the property of 'not being a product', which is absurd. If, on the other hand, the similar example were formulated in the reverse way as yad anityaṃ tat kṛtakam, then instead of 'non-eternity' the property of 'being a product' would be proved by 'non-eternity', which is absurd.³⁰

nityatākṛtakatvena, nāśitvād vātra kāryatā / syād anuktā kṛtāvyāpiny aniṣṭaṃ ca samānvaye // Quoted in VNŢ 8,24-26 with variant readings. Cf. NMu v.12: 應以非作證其常 或以無常成所作 若爾應成非所説不遍非楽等合離.

PSV^K 148b7-8: gal te chos mthun pa'i dban gis gan ma byas pa de rtag go zes brjod na | ma byas pa'i phyir dam ma bcas pa ñid kyi rtag pa bsgrub par 'gyur ro || ci ste chos mi mthun pa'i dban gis gan <mi>rtag pa de ni bya ba'o zes de ltar yan brjod na | mi rtag pa'i phyir byas pa bsgrub par 'gyur ro || ('yadi sādharmyavasena yad akṛtakam tad anityam ity ucyate | akṛtakatvenāpratijñātam eva nityatvam sādhitam syāt | atha vaidharmyavasena yad anityam tat kṛtakam ity evam apy ucyate | anityatvena kṛtakatvam sādhitam syāt |). Cf. PSV D60b3-4; KITAGAWA 1965: 515.

Then he examines Hetucakra No. 8 whose 'reason' (hetu) does not pervade the whole domain of the property to be proved or the set of similar instances (sapakṣa), unlike in the above case. It runs as follows:

[proposition] anityaḥ śabdaḥ

[reason] prayatnānantarīyakatvāt

[similar ex.] yathā ghato vidyuc ca

[dissimilar ex.] yathākāsam

[Proof 9]

Dignāga sees the problems that entail if two examples are not properly formulated. If a similar example is formulated as "Whatever is non-eternal is produced by human effort" (anityaṃ prayatnānanta-rīyakam eva) and a dissimilar example as "Whatever is not produced by human effort is eternal" (aprayatnānantarīyakaṃ nityam eva), then one of the similar examples, i.e., lightning (vidyut), which is non-eternal but not produced by human effort, should be regarded as eternal, as well as being produced by human effort, which is absurd. In order to avoid such an absurd consequence, Dingāga suggests the following formulation:³¹

PSV^K 148b8-149a3: ma khyab pa la yan rtsol ba las byun ba ñid kyi gtan tshigs la ñes pa 'di yod de | glog la sogs pa rnams rtag pa ñid dan | rtsol ba las byun ba ñid kyi ñes pa yod do || rtsol ba las byun ba ma yin pa ni rtag pa ñid yin la mi rtag pa yan rtsol ba las byun ba ñid yin no zes gal te de latr nes par gzun na skyon 'dir 'gyur ba yin na | gan gi tshe rtsol ba las byun ba ma yin pa ñid ni rtag ces nes par gzun ba yin gyi | rtsol ba las byun ba'o zes ma yin pa de'i tshe ñes pa med pa yin te | de ltar na rtag pa ni rtsol ba las byun ba la med par brjod pa yin no || de bzin du mi rtag pa ñid ni rtsol ba las byun ba las zes bya ba ('avyāpiny api prayatnānantarīyakatve hetāv asty ayam doṣah | vidyudādīnām nityatvam prayatnānantarīyakatvam ca prasajyata iti doṣo 'sti | asty ayam doṣah yady evam avadhāryeta aprayatnānatarīyakam nityam evety anityam ca prayatnānantarīyakam eveti | yadā tv evam avadhāryate apra-

[proposition] anityaḥ śabdaḥ

[reason] prayatnānantarīyakatvāt

[similar ex.] anityam eva prayatnānantarīyakam, yathā ghaţo

vidyuc ca

[dissimilar ex.] aprayatnānantarīyakam eva nityam, yathākāśam

[Proof 10]

An objection may arise: If the domain of the reason should be restricted to the domain of the property to be proved as in Hetucakra No. 8 (= Proof 10), then the other type of reason (in Hetucakra No. 2 = Proof 8), whose domain is co-extensive with that of the property to be proved, would not be a valid reason because there is no restriction of the reason (hetvavadhāraṇa). Dignāga answers by saying that the restriction (avadhāraṇa) is made in accordance with the speaker's intention (vaktrabhiprāyavaśāt); in other words, the speaker chooses which property is to be restricted, so that it can become a reason. So in Hetucakra No. 2, not the property of being non-eternal (anityatva), but the property of being a product (kṛta-katva) is chosen to be restricted as the valid reason, even though their domains are theoretically co-extensive.³²

Another objection: Just as non-eternity is inferred from the absence of the property of being produced by human effort (i.e., the reason)

yatnāntarīyakam eva nityam na prayatnānatrīyakam iti tadā nāsti kaścid doṣaḥ / evam nityatvasya prayatnānatarīyake 'bhāva ukto bhavati / tathānityam eva prayatnānatarīyakam iti /). Cf. PSV D60b3-5; KITAGAWA 1965: 515-516.

³² PSV^K 149a3-4: 'dir | gal te yan gtan tshigs nes par gzun ba'i phyir don gźan med par 'gyur ba de lta na brjod pa po'i bsam pa'i dban gis nes par bzun ba'i phyir </> rtsol ba las byun ba ñid la rtag pa ñid med par brjod do źe na | ('atra yady api hetvavadhāranāt hetvantarābhāvaḥ prāptaḥ | tathāpi vaktrabhiprāyavaśād avadhāranam tasmāt prayatnānantarīyakatvasyaiva nitye 'bhāva ucyate |). No corresponding PSV^V; cf. KITAGAWA 1965: 516.

in eternal things (i.e., a set of dissimilar instances), similarly the property of not being produced by human effort can be inferred from the absence of eternity in those which are produced by human effort, which is absurd because the unintended proposition would be proved as a result. Dingāga points out that in order to avoid such confusion we should formulate the dissimilar example in the form of absence of the reason only (eva) in the absence of the property to be proved (hetor eva sādhyābhāve 'bhāvaḥ).³³

4. Enough for the proper formulation of example statements. Now Dignāga discusses the important topic of whether we really need both similar and dissimilar examples in one proof.

A question arises: If the dissimilar example is formulated by means of the absolute absence of the reason in the absence of the property to be proved (sādhyābhāve hetor abhāva eva), then there is no error at all in the similar example, such as "Whatever is produced by human effort is non-eternal" (anityam eva prayatnānantarīyakam), which implies that there is no need to formulate a similar example, as long as a dissimilar example is properly formulated.

To this Dignāga answers: If so, the notorious erroneous reason called 'unique and inconclusive' (asādhāraṇānaikāntika) would

PSV^K 149a4-6: mi mthun pa bkod pa yin te | de lta na yin na ji ltar rtag pa la rtsol las byun ba med pa'i phyir mi rtag pa ñid rjes su dpog pa de bźin du rtsol ba las byun ba <la> rtag pa ñid med pa'i phyir rtsol ba las ma byun ba rjes su dpog pa'i phyir dam ma bca' ba bsgrub pa de ñid yin no || de'i phyir gtan tshigs kho na bsgrub bya med pa la med par bstan par bya'o || ('viṣamopanyāsaḥ | tathā hi yathā nitye prayatnānantarīyakatvābhāvād anityatvānumānam evam prayatnānantarīyake nityatvābhāvād aprayatnānantarīyakatvānumānam iti tad evāpratijñātārthasādhanam | tasmād dhetor eva sādhyābhāve 'bhāva upadarśyaḥ |). No corresponding PSV'; cf. KITAGAWA 1965: 516.

become a valid reason. For example, the following is an example of a proof based on the unique and inconclusive reason:

[proposition] nityaḥ śabdaḥ (Sound is eternal.)

[reason] śrāvaṇatvāt (Because it is audible.)

[Proof 11]

Since the reason 'audibility' is the unique property of sound, the topic of the proposition, it is regarded as 'unique' to sound, or as not being a property of either the eternal or non-eternal - with the exception of sound - things in the world. Therefore, it is traditionally considered to be an inconclusive reason. Although it does not possess the second characteristic of a valid reason (anvaya), it certainly possesses the third characteristic (vyatireka), for it is true that whatever is not eternal is not audible, and there are many instances of things that are neither eternal nor audible, such as a pot. In fact we can formulate a dissimilar example for Proof 11, namely, "Whatever is not eternal is not audible, as, e.g., a pot" (yad anityam tad aśrāvaṇam, yathā ghaṭaḥ), though we cannot formulate a similar example, namely, "Whatever is audible is eternal" (yac chrāvaṇaṃ tan nityam), that is applied with an actual example. Now if, as the opponent argues, there is no need for a similar example as long as a dissimilar example is properly formulated, then we have a problem; for the unique and inconclusive reason, such as 'audibility', should be a valid reason, which is absurd.34 In other

PSV^K 149a6-7: 'on te 'dir bsgrub bya med na med pa ñid ñe bar bstan na | mi rtag pa ñid ni rtsol ba las byun ba'o zes bya ba 'di la ñes pa ci zig yod ce na | dper na rtag pa ñid ni mñan par bya ba yin te | mi rtag pa la med pa'i phyir thun mon ma yin pa yan rtag pa ñid la gtan tshigs su 'gyur ro || ('atheha sādhyābhāve 'bhāva evopadarśitaḥ | anityam eva prayatnānatarīyakam iti atra hi na kaścid doṣa iti cet | yathā nityam eva śrāvaṇam, vinaśvare 'bhāvād asādhāraṇam api nityatve hetuḥ syāt |). No corresponding PSV^V; cf. KITAGAWA 1965: 516-517.

words, in order to avoid such an undesirable consequence, we should be able to formulate both similar and dissimilar examples.

The opponent counters: Usually we can deduce a similar example from a dissimilar example by means of 'implication' (arthāpatti); for example, from "Whatever is not non-eternal is not produced by human effort" we obtain: "Whatever is produced by human effort is non-eternal." However, this is not the case with a unique and inconclusive reason, for from "Whatever is not eternal is not audible" we cannot obtain "Whatever is audible is eternal" because there is nothing in the world that is both audible and non-eternal except for sound; in other words there is no external support.

Dignāga answers: We also admit that by means of implication (arthāpatti) we obtain both examples; or either one of the two examples can indicate both by means of implication. Dignāga still holds his position that the two examples are necessary, though they are not necessarily explicitly stated; either one of them can imply the other, or both.

PSV^K 149a7-b1: gal te ñes pa 'di med de dper na mi rtag pa ñid ni rtsol ba las byun ba'o źes bya ba 'dir śugs kyis bsgrub bya <mi>rtag pa la sgrub pa rñed pa ñid yin pa de ltar rtag pa ñid ni mñan par bya'o źes rtag pa la mñan par bya ba ñid bstan par ni nus pa ma yin no źe na | gal te śugs kyis gñi ga rñed pa yin na de kho bo cag mnon par 'dod pa ñid yin te śugs kyis sam gan yan run bas gñi ga rab tu bstan pa'i phyir ro || ('naiṣa doṣaḥ | yathānityam eva prayatnānantarīyakam ity atra arthāpattyā sādhye 'nitye sādhanam labdham bhavati, evam nityam eva śrāvaṇam iti nitye śrāvaṇatvam darśayitum na śakyata iti cet | yadi tarhy arthāpattyobhayam labdham tad asmābhir anujnātam eva, arthāpattyā vā anyatareṇobhayapradarśanāt ||). The last phrase corresponds to NMu (KATSURA 1981: 72) 或由義惟一能顕二, which is quoted in Pramānavārttika-Svavṛtti (ed. by RANIERO GNOLI, Roma 1960): 18,17. No corresponding PSV'; cf. KITAGAWA 1965: 517.

So far Dignāga has insisted on the necessity of a similar example in addition to a dissimilar example; now he argues for the necessity of a dissimilar example. An opponent points out: if 'pervasion' (vyāpti) is expressed in the form of the reason's being followed by the property to be proved (hetoḥ sādhyānugamaḥ), then it is not necessary to state its absence in the absence of the property to be proved (sādhyābhāve nāstitā); hence there is no necessity to formulate a dissimilar example. Note that Dignāga uses the word 'pervasion' for the first time in a technical sense in this particular portion of PSV.³⁶

The opponent further remarks that it may be meaningful to formulate a dissimilar example, provided that the mere existence of the reason in a set of similar instances (sapakṣe hetoḥ sadbhāvamā-tram) is intended by Dignāga in the formulation of a similar example; in that case, however, it is meaningless to refer to an external object as an actual example; consequently, 'pervasion' should be expressed in a similar example.³⁷

Following PST źe na should be deleted. Cf. PSV D60b6; KITA-GAWA 1965: 517.

PSV^K 149b1-2: gal te gtan tshigs bsgrub bya'i rjes su 'gro ba khyab pa rab tu bstan par bya ba yin na | de ni mi rtag pa las gźan la med pa'i phyir bsgrub bya med na med do źes brjod par mi bya ba dan | ('yadi tu hetoḥ sādhyānugama vyāptiḥ darśitāḥ, tasyānityād anyatrābhāvāt, sādhyābhave ca nāstiteti na vaktavyam |). Cf. PSV D60b5-6: KITAGAWA 1965: 517.

PSV^K 149b2-4: ci ste yod pa tsam yin na rtsol ba las byun ba ñid kyan med na bum pa'i <mi>rtag pa ñid kyan med pa'i phyir phyi rol gyi don la bltos pa 'di ni dpe yin no || źes brjod par mi bya'o źes bya ba'i ñes pa 'di ni yod do (źe na) | khyab pa ñid kyi gtan tshigs ni bsgrub bya'i rjes su 'gro bar brjod par bya ste | (*atha sadbhāvamātram, prayatnānantarī-yakatvenāpi ghaṭe 'nityatvasyāpy avinābhāvitvāt, bāhyārthāpekṣam idaṃ nidarśanam iti na vaktavyam ity asty eṣa doṣa iti | vyāptir eva hetoḥ sādhyānugamena vaktavyā |).

In this connection, Dignāga seems to accept the opponent's criticism. Namely, he admits that when a pervasion is explicitly expressed in a similar example, the reason's absence in the absence of the property to be proved is shown by implication $(arth\bar{a}patty\bar{a})$, which makes it unnecessary to formulate a dissimilar example. However, he also maintains that when two examples are to be formulated, a similar example shows the reason's mere presence in a set of similar instances, while a dissimilar example shows a pervasion $(vy\bar{a}pti)$ in the form of the reason's absence in the absence of the property to be proved. Dignāga seems to be conceding that it is not absolutely necessary to formulate both examples as long as the pervasion is expressed in one of the two examples.

An objection arises: If it is enough for a similar example to state the reason's mere presence in a set of similar instances, then there is no need to define it in terms of the reason's being followed by the property to be proved (sadhyenānugamo hetoḥ) as in PS 4.2a. It is to be noted that anugama is equivalent to vyāpti in this context. To this Dignāga replies: The purpose of formulating a similar example in that way is to reject the reversed formulation, namely, the property to be proved being followed by the reason (sādhyasya hetunānugamaḥ).³⁹

PSV^K 149b4-5: gnas skabs 'di la śugs ñid kyis bsgrub bya med pa la gtan tshigs med par bstan pa'i phyir chos mi mthun pa'i dpe sbyar bar mi bya'o || gan gi tshe dpe gñi ga sbyar bar bya ba de'i tshe mthun pa'i phyogs la yod pa tsam bstan par bya ba yin la | khyab pa ni bsgrub bya med na med pa ston pas yin no || ('asyām cāvasthāyām arthāpattyā sādhyābhāve hetor abhāvaḥ pradarśita iti vaidharmyadṛṣṭānto na prayoktavyaḥ | yadā tu dṛṣṭāntadvayaṃ prayoktavyaṃ tadā sapakṣe sanmātraṃ pradarśyam, vyāpteḥ sādhyābhāve 'bhāvena pradarśitatvāt |). Cf. PSV D60b6-61a1; KITAGAWA 1965: 517-518.

PSV^K 149b5-6: 'on te de ltar na gtan tshigs bsgrub bya'i rjes su 'gro ba ni chos mthun pas rab tu stan to zes bya ba 'di brjod par bya ba ma

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In order to justify the rejection of the reversed formulation, Dignāga presents a rather complicated argument. First he refers back to PS 3.22 where he defined the valid reason (hetu).

Of the [nine reasons mentioned in PS 3.21]⁴⁰ the valid reason is that which is either present [wholly] or in two ways [i.e., present and absent] in the similar instances (sajātīya) and which is absent in the absence of the [similar instances]; the reversed is the 'incompatible' (viruddha) [reason] and the rest comprise the 'indeterminate' (aniścita) [reason].⁴¹

As is well known, of the nine types of reasons in his Hetucakra, Dignāga accepts only two as valid, namely, No. 2 'the property of being produced' (*kṛtakatva*) and No. 8 'the property of being produced by human effort' (*yatnaja*). The difference between the two valid reasons lies in the fact that the former pervades the whole domain of similar instances (*sapakṣa*), while the latter is present only in part of it. He then points out that in order to include the latter under the valid reason, the second characteristic of a valid reason should be restricted in the following manner: "It is present only in the similar instances" (*sajātīya eva san*). He also notes that the two example statements present the second and the third characteristics of a valid reason (*anvaya* and *vyatireka*), while the reason

yin no że na | 'di yan bsgrub bya gtan tshigs kyi rjes su 'gro ba bkag pa'i don du 'gyur ro || ('na tarhi vaktavyam idam hetoh sādhyānugamaḥ sādharmyeṇa pradarśita iti | etat punaḥ sādhyasya hetunānugamapratiṣedhārthaṃ syāt |). Cf. PSV D61a1; KITAGAWA 1965: 518.

⁴⁰ prameyakṛtakānityakṛtaśrāvaṇayatnajāḥ / anityayatnajāsparśā nityatvādiṣu te nava // (= NMu v. 6: 所量作無常 作性聞勇發 無常勇無觸依常性等九). Quoted in NVTŢ 247,8-9.

^{**} tatra yaḥ san sajātīye dvedhā(/dvidhā) cāsaṃs tadatyaye | sa hetur vi-parīto 'smād viruddho 'nyas tv aniścitaḥ // (= NMu v. 7: 於同有及二在異無是因 翻此名相違 所餘皆不定). Quoted in NVTT 247,1-2.

statement presents the first characteristic, i.e., the reason's being a property of the topic of a proposition (paksadharmatva).⁴²

Now by rejecting the reversed formulation of a similar example, Dingāga seems to think that a reason is properly restricted to the domain of a property to be proved and, consequently, that the second characteristic of a valid reason is shown by a similar example. Therefore, it is meaningful to formulate a similar example. The above remark has been made in order to include Hetucakra No. 8 as a valid reason, for the reversed formulation of a similar example is possible at least theoretically in the case of Hetucakra No. 2.

Now an objection may arise. If a reason is present only in the similar instances (sajātīya eva san), one can naturally assume that it is absent in the dissimilar instances (vijātīye 'sattvam); hence, there is no need to mention 'absent in the absence of the [similar instances]' (asams tadatyaye) in PS 3.22b. Dignāga argues that such a formulation has the purpose of restricting in such a way that a valid reason is absent only in the absence (atyaya) of the similar instances but not in dissimilar (vijātīya) items in general. Similarly in the dissimilar example, a valid reason is absent only in the absence of a property to be proved but not in different (anya) or dissimilar items.⁴³ Therefore, it is meaningful to formulate the dissimi-

PSV^K 149b6-8: 'on te bkag pa ni don med pa yin te </ ma yin te |> mthun pa'i phyogs la yan rnam pa gñis zes brjod pa'i phyir ro || phyogs kyi chos ni gtan tshigs kyis brjod pa'i phyir 'dir ni gtan tshigs lhag ma bstan par bya ba yin te | de la gdon mi za bar rigs mthun pa kho na la yod zes nes par gzun bar bya'o (ze na) | ('atha nārthas tatpratiṣedhe, na, san dvidhā ceti vacanāt | hetuśeṣaś cātra pradarśitavyaḥ pakṣadharmatvasya hetunaivoktatvāt | tatrāvaśyaṃ sajātīya eva sann ity avadhāryam eva |). Cf. PSV D61a1-2; KITAGAWA 1965: 518.

⁴³ PSV^K 149b8-150a2: de ltar na rigs mthun pa ñid la yod ces bya bas bsgrub bya'i rjes su 'gro ba kho na gtan tshigs so źes nes par bzun ba na | rigs mi mthun pa la yod pa dgag pa thob pas nes pa'i don du 'gyur

lar example, even when it can be assumed from the similar example.

The same line of arguments can be found in PSV ad PS 2.5cd when Dignāga presents the theory of *trairūpya*, where he justifies the formulation of the third characteristic of a proper reason apart from that of the second characteristic.⁴⁴ In this context, he gives other instances of the same type of arguments from PSV chapters 3 and 4.⁴⁵ Having made a few more remarks,⁴⁶ Dignāga gives his final answer with respect to why it is necessary to formulate both similar and dissimilar examples.

te | ji ltar de dan bral ba la med pa ni de dan bral ba **ñid** la med pa yin gyi rigs mi mthun pa la ma yin la | bdag med pa la sogs pa la ma yin pa de bźin du 'dir yan bsgrub bya med pa kho na la med pa yin gyi | gźan pa la ma yin rigs mthun pa la yan ma yin no || ('tarhi sajātīya eva sann iti sādhyenānugama eva hetor iti avadhārane vijātīye sattvapratiṣedhaprāptir iti niyamārthaḥ syād yathā tadatyaya evāsan na vijātīye 'nātmādau tathehāpi sādhyābhāva evābhāvo nānyatra nāpi vijātīye |). Cf. PSV D61a3-5; KITAGAWA 1965: 518-519.

⁴⁴ See Katsura 2000.

⁴⁵ PSV^K 150a3-4: rigs mi mthun pa'i bsgrub bya la rjes su 'gro ba yod na | 'gal ba la 'am mi 'gal ba la yod pas don du ma sgrub par byed pa'i gtan tshigs 'gal ba'i gtan tshigs ñid du bźad pa yin no || gan yan chos mthun pa tsam gyis brjod pa la ma nes par thal bar 'gyur ro żes 'chad par 'gyur ba de la lus can ma yin pa ñid ni rtag pa med pa la yan yod pa'i phyir żes bstan par bya ba yin gyi | gżan pa dan 'gal ba ñid med <la yod> pa'i phyir żes ni ma yin no || ('vijātīye tu sādhyānugame sati viruddhe 'viruddhe vā sattvād anekārthasādhanasya hetutā viruddhahetutā vyākhyātā | yadāpi sādharmyamātroktāv anaikāntikah syād iti vakṣyati tatra amūrtatvasya nityābhāve 'pi sadbhāvād iti pradarśyate, na tv anyatra viruddhe vā sadbhāvād iti |). Cf. PSV D61a4-5; KITAGAWA 1965: 519.

⁴⁶ PSV^K 150a4-8; PSV^V D61a5-7; KITAGAWA 1965: 519-520.

Here a question arises: Are the two forms of the examples together regarded as a proving statement (sādhanavacana), or either one of them as in the case of the statement of the reason? — isn't there only one reason in one proof? Dignāga replies: Both forms together are regarded as a proving statement. Otherwise,⁴⁷

If [it were allowed that] either one or both [of the examples] were not mentioned [in a proof], even 'common' (sādhāraṇa), 'specific' (viśiṣṭa = asādhāraṇa), or 'incompatible' (viruddha) [reasons] would be regarded as a valid reason (sādhana) [, which is absurd]. Therefore, the examples [in a proof] should be two. 48 (PS 4.5)

(1) If a similar [example] only were stated, then [a reason might be] present even in the absence of a property to be proven (i.e., in the dissimilar instances); consequently, a common [and uncertain (sādhāranānaikāntika) reason] would be suspected of being a valid reason. Or (2) if a dissimilar [example only] were stated, then [a reason might be] absent even in the domain similar to what is to be proved (i.e., in the similar instances); consequently, an uncommon [and inconclusive (asādhāraṇānaikāntika) reason] would be [regarded as a valid reason]. (3) If neither of the two [examples] were stated, then [a reason might be] absent in the similar instances and present in [its] absence [i.e., in the dissimilar instances]; consequently, an incompatible (viruddha) [reason] would be [regarded as a valid reason]. Therefore, both [examples] should be stated as

⁴⁷ PSV^K 150a8-b1: 'on te ci dpe rnam pa gñis kyis tshig sgrub byed yin ni | ci ste gtan tshigs bźin du gan yan run ba ñid yin źe na | rnam pa gñi ga yin no źes brjod de | gźan du na ... Cf. PSV^V D61b1-2; KITAGAWA 1965: 520.

⁴⁸ PS^K 4.5: re re 'am gñi ga ma brjod pa'i || thun mon ba dan khyad par can || 'gal ba ñid kyan sgrub byed 'gyur || de phyir dpe ni gñis yin no || Cf. PS^V thun mon dan ni khyad par ñid || 'gal ba'an sgrub byed ñid du 'gyur || re rer gñis ka ma brjod na || des na dper brjod gñis su bya ||. KITAGAWA 1965: 520.

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the countermeasures (pratipakṣa) to such [pseudo-reasons] as 'incompatible' and 'inconclusive'. 49

To some [opponent], if one [of the two examples] is known, then even one [example which is unknown to him], being stated, is regarded as a member of proof (sādhana).

Or, just as in the case of verbal cognition ($s\bar{a}bda$), if both [anvaya and vyatireka]⁵⁰ are known [to both parties], either one of the two [examples] will indicate both by implication ($arth\bar{a}patty\bar{a}$); consequently, there is no need to state both.⁵¹

Dignāga justifies his position by saying that unless two examples are formulated, pseudo-reasons such as 'incompatible' and 'inconclusive' (both common and unique) could be regarded as valid reasons. As a matter of fact, in *Hetucakra* he mentions both kinds of examples for each of the nine reasons. However, Dignāga admits a couple of exceptional cases. Namely, when one of the examples is well known to the opponent, it is enough to state the other; and

⁴⁹ PSV^K150b2-4: gal te chos mthun pa kho nas brjod na de'i phyir bsgrub bya med pa la yan 'gyur bas thun mon ba ñid gtan tshigs su dog pa yin no || ci ste chos mi mthun pa ñid kyi brjod na de'i phyir bsgrub bya'i rigs la yan med pa'i phyir thun mon ma yin pa ñid 'gyur ro || gal te gñi ga ma brjod na de'i phyir rigs mthun pa la med par 'gyur la med pa la yod par 'gyur ba'i phyir 'gal ba ñid du 'gyur ro || de'i phyir gdon mi za bar 'gal ba dan | ma nes pa'i gñen por gñi ga yan brjod par bya'o ||. KITAGAWA 1965: 520-521; cf. PSV D61b2-4; cf. PVSV 11,7-8: eṣa tā-van nyāyo yad ubhayaṃ vaktavyaṃ viruddhānaikāntikapratipakṣeṇa | = NMu § 5.4, KATSURA 1981.

⁵⁰ Cf. PSV ad PS 2.4; KITAGAWA 1965: 87-88 and PST D89b2.

⁵¹ PSV^K 150b4-5: gan żig la cun zad rab tu grub pa yin pa'i phyir gan yan run ba brjod pa yan sgrub byed yin no // sgra kho na la (read sgra bżin du = PSV^V) don gñis rtogs pa'i phyir ram / gan yan run bas śugs kyis gñi ga bstan pa'i phyir gñi ga brjod par mi bya'o // Cf. PSV^V D61b4-5; KITAGAWA 1965: 521; cf. PVSV 18,17: arthāpattyā vānyatarenobhayapradarśanāt = NMu § 5.4, KATSURA 1981.

when both examples are well known, it is enough to state either one of them. Of course, this is a practical decision, and theoretically speaking, Dignāga insists on the necessity of the two examples. It may be interesting to note in passing that such a practical solution is already mentioned in NMu.

As I have discussed elsewhere, Dignāga was aware of the logical equivalence of anvaya and vyatireka with eva-restriction; consequently, he could have said that one example, being properly formulated, could indicate both by implication (arthāpattyā). Nonetheless, he held to the necessity of the formulation of two examples in one proof. I take it that this attitude of Dignāga's reflects the inductive nature of his system of logic. He wanted to have both similar and dissimilar examples in our world of experience (or the induction domain) in order to induce the general proposition of pervasion (vyāpti).

- 5. In PSV chapter 4, verse 6, which I discussed at the beginning of this paper, comes next. In the rest of *svamata* section Dignāga deals with the following topics:
- (i) It is necessary to formulate the 'example' separately from the 'reason' but the formulations of the two should not be unrelated.⁵²
- (ii) Dignāga criticizes the ill-formed proof formulae commonly used by his contemporaries who adopt the Nyāya definition of the reason (NSū 1.1.34 & 35: udāharaṇasādharmyāt sādhyasādhanaṃ hetuḥ, tathā vaidharmyāt).⁵³

⁵² PS & PSV 4.7-8 (^K151a2-7; ^V62a2-5); KITAGAWA 1965: 522-523.

⁵³ PS & PSV 4.9-10 (^K151a7-b4; ^V62a5-b3); KITAGAWA 1965: 523-525.

- (iii) Further, he points out that the mere statement of an actual example without reference to a general law of pervasion will require further examples *ad infinitum*.⁵⁴
- (iv) Dignāga recognizes ten types of pseudo-examples, which become the standard classification among later Buddhist logicians. With reference to a similar example, (1) one which lacks a reason (sādhanavikala), (2) one which lacks a property to be proved (sādhyavikala), (3) one which lacks both (ubhayavikala), (4) one in which the positive concomitance is stated in a reverse way (viparītānvaya), and (5) one in which it is not stated at all (anavaya).

Similarly with reference to a dissimilar example, (1) one which lacks a reason, (2) one which lacks a property to be proved, (3) one which lacks both, (4) one in which the negative concomitance is stated in a reverse way (*viparītavyatireka*), and (5) one in which it is not stated at all (*avyatireka*).⁵⁵

- 6. In conclusion I would like to point out the following:
- (1) Dignāga recognizes two senses of the term *dṛṣṭānta*, namely, an example object (*artha*) and an example statement (*vacana*).
- (2) He recognizes two kinds of examples: 'similar' (sādharmya-dṛṣṭānta) and 'dissimilar' (vaidharmya-dṛṣṭānta). The former as an object exhibits the presence of both the property to be proved (sādhyadharma) and the proving property (sādhanadharma or hetu), while the latter exhibits the absence of both properties. The former as a statement is formulated in the form of the positive concomitance (anvaya), i.e., the presence of the proving property is

⁵⁴ PS & PSV 4. 11-12 (^k151b4-152a5; ^V62b3-63a3); KITAGAWA 1965: 525-527; cf. NMu v. 14: 若因唯所立 或差別相類 譬喻応無窮及遮遣異品.

⁵⁵ PS & PSV 4.13-14 (*152a5-b5; V63a3-b1); KITAGAWA 1965: 527-529.

followed by the presence of the property to be proved, and the latter in the form of the negative concomitance (vyatireka), i.e., the absence of the property to be proved is followed by the absence of the proving property.

- (3) The two statements of examples are logically equivalent like the second and the third characteristics (anvaya-vyatireka) of a valid inferential mark (linga) with eva-restriction. Consequently, theoretically speaking, there is no need to formulate the two examples in one proof as other Indian logicians do. However, Dignāga insists on the necessity of presenting the two examples in one proof, which seems to indicate the inductive nature of his system of logic.
- (4) Dignāga is greatly concerned with the proper formulation of a proof, especially that of the example and criticizes the proof formulae of other contemporary logicians.
- (5) Finally the role of the two examples in Dignāga's logic is to present respectively the positive and the negative concomitances (anvaya-vyatireka) of a valid inferential mark and, hence, to reveal the relation (sambandha), which is called avinābhāva or vyāpti, between a proving property and a property to be proved. It is Dignāga who for the first time in the history of Indian logic succeeded in formally defining this relation by employing the restrictive power of the particle eva, which he inherited from Indian Grammarians.

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