

# The Concept of *sādhana* in Chinese Buddhist Logic

by  
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## 1. Introduction

In his article “More on *parārthānumāna*, theses and syllogisms” ([1991] 1999), Prof. Tom J. F. Tillemans gave us a brief account of the interpretation of *sādhana* (means of proof) in Dharmakīrti’s works as well as in the tradition following him. In this article, he showed us, on one hand, the development concerning this concept in Dignāga’s thought from the NMu to the PS, and on the other hand, insightfully explained the theoretical significance of this development through a comparison with the Aristotelian syllogism. In short, in Vasubandhu’s logical works as well as in Dignāga’s NMu, the *sādhana* was identified with the linguistic expression of the three members, i.e., the thesis (*pakṣa*), the reason (*hetu*) and the example (*dr̥ṣṭānta*). In Dignāga’s PS as well as in Dharmakīrti’s tradition, it was identified only with the reason and the example. This exclusion of the thesis-statement from *sādhana* highlights a particular Buddhist conception of what is decisive for the acceptability of an argument, one which contrasts with the principles governing the Aristotelian syllogism. The decisive or probative factor in an argument, according to this new conception of *sādhana*, is the truth of the premises, and not merely the logical form of an inference.

The present paper, as an extended observation based on Tillemans’ abovementioned article as well as on an earlier seminal article of Prof. Masahiro Inami,<sup>1</sup> will show that in the Chinese tradition of Buddhist logic, the concept of *sādhana* (*neng li* 能立) was consistently interpreted as the reason-statement together with the statements of the positive and negative example, or directly as the *trairūpya*, the triple characterization of a correct reason. This interpretation of *sādhana* was explicitly ascribed to Dignāga himself as one significant innovation over earlier masters. Although the Chinese tradition appears to have proclaimed its theoretical exploration as exclusively based on the NP and the NMu, its novel interpretation of *sādhana* in fact only finds support in the PS. Like the tradition following Dharmakīrti, Chinese interpreters following Dignāga also took to various hermeneutic strategies in order to harmonize their new interpretation with the old one from the NP and the NMu, which is also found in various pre-Dignāgan Buddhist texts on logic.

In Chinese sources one also comes across the view that Indian Buddhist logicians after Dignāga held the new interpretation instead of the old one. Moreover, these logicians were reported in Chinese sources to have interpreted the “incompleteness” (*nyūnatā*) of

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I would like to express my gratitude to my colleague, Dr. Liqing Qian, with whom I discussed the main idea of this paper, and who kindly helped me correct my English, and also to Prof. Birgit Kellner, who carefully read my paper and made many expert suggestions of various kinds towards its improvement. Needless to say, I am responsible for all remaining mistakes.

<sup>1</sup> Inami 1991. Here Inami explained the status of *pakṣa* in an argument, and the development of relevant ideas from Dignāga to Dharmakīrti, in connection with corresponding developments in the theory of *pakṣābhāsa* (pseudo-thesis).

an argument as referring to the incompleteness of the three characteristics, and not as indicating the incompleteness of the three statements that constitute a proof. This new interpretation of *nyūnatā* together with the above new interpretation of *sādhana* was inherited by Chinese logicians. In light of this new interpretation of *nyūnatā*, the present paper tries to demonstrate once more, “from a slightly different angle” than Tillemans, that it does not just reveal a terminological difference, but that it points to more fundamental issues at stake and indicates “how logic works”<sup>2</sup> for Buddhist thinkers.

## 2. The twofold meaning of *sādhana* in the NP and the NMu

The literal meaning of *sādhana* is “means of proof.” As we know, *sādhana* is one of the eight topics in the basic framework of the NP. The eight topics are: (1) demonstration (*sādhana*), (2) refutation (*dūṣaṇa*, *neng po* 能破), (3) pseudo-demonstration (*sādhanābhāsa*, *si neng li* 似能立), (4) pseudo-refutation (*dūṣaṇābhāsa*, *si neng po* 似能破), (5) perception (*pratyakṣa*, *xian liang* 現量), (6) inference (*anumāna*, *bi liang* 比量), (7) pseudo-perception (*pratyakṣābhāsa*, *si xian liang* 似現量) and (8) pseudo-inference (*anumānābhāsa*, *si bi liang* 似比量):

NP 1: *sādhanam dūṣaṇam caiva sābhāsam parasamvide / pratyakṣam anumānam ca sābhāsam tv ātmasamvide //*

NP<sub>Ch</sub> 11a28–29: 能立與能破 及似唯悟他, 現量與比量 及似唯自悟。

Demonstration (*sādhana*), refutation (*dūṣaṇa*) and their pseudo-forms (*ābhāsa*) are for the understanding of others. Perception (*pratyakṣa*), inference (*anumāna*) and their pseudo-forms are for the understanding of oneself.<sup>3</sup>

The *sādhana* is the foremost among the eight topics. The sections on *sādhana* and *sādhanābhāsa* are the most extensive ones in the whole text of the NP. In this context, the term *sādhana* refers to a three-membered argument and stands in contrast with *dūṣaṇa* (lit. “means of refutation”). While the former is aimed at proving a view, the latter serves the purpose of refutation. Therefore, we could translate the term *sādhana* when used in this sense as “demonstration” or rather “argument,” i.e., the linguistic expression of a proof.<sup>4</sup>

<sup>2</sup> Tillemans [1991] 1999: 78, 81.

<sup>3</sup> Cf. Tachikawa 1971: 120.

<sup>4</sup> The *anumāna/sādhana* distinction in the NP (cf. above NP 1) comes approximately to the inference/argument distinction in today’s logic. I discussed this in Tang 2020: 414–416. In short, by inference we mean nowadays “a process of linking propositions by affirming one proposition on the basis of one or more other propositions.” By argument we mean “a structured group of propositions, reflecting an inference” (Copi and Cohen 2005: 7). The working of an inference does not necessitate the medium of certain linguistic expressions. An inference is only a process of pure thinking, regardless of whether or not it is expressed linguistically. However, the working of an argument necessitates the medium of certain linguistic expressions. An argument should spell out an inference in certain linguistic forms which are suitable to be understood by others. Hence, I suggest “argument” as an alternative translation of *sādhana* in addition to the traditional translation “demonstration.” A three-membered *sādhana* is called a three-membered argument throughout this paper.

The three members or statements making up a *sādhana* are the thesis (*pakṣa*, *zong* 宗), the reason (*hetu*, *yin* 因) and the example (*dr̥ṣṭānta*, *yu* 喻). The last one normally consists of two parts, the positive example (*sādharmyadr̥ṣṭānta*, lit. “example by similarity,” *tong fa yu* 同法喻) and the negative example (*vaidharmyadr̥ṣṭānta*, lit. “example by dissimilarity,” *yi fa yu* 異法喻):

NP 2: *tatra pakṣādivacanāni sādhanam / pakṣahetudr̥ṣṭāntavacanair hi prāśnikānām apratīto 'rthaḥ pratipādyata iti //*

NP<sub>Ch</sub> 11b1–3: 此中宗等多言名為能立，由宗、因、喻多言開示諸有問者未了義故。

Here [among the eight topics,] the *sādhana* is the [three] statements consisting of the thesis and the other [two factors, i.e., the reason and the example], because the object [yet] unknown to the questioners is made known by these [three] statements consisting of the thesis, the reason and the example.<sup>5</sup>

NP 2.4: *eṣāṃ vacanāni parapratyāyanakāle sādhanam / tadyathā / anityaḥ śabda iti pakṣavacanam / kṛtakatvād iti pakṣadharmavacanam / yat kṛtakam tad anityam dr̥ṣṭam yathā ghaṭādir iti sapakṣānugamavacanam / yan nityam tad akṛtakam dr̥ṣṭam yathākāśam iti vyatirekavacanam // etāny eva trayo 'vayavā ity ucyante //*

NP<sub>Ch</sub> 11b19–23: 如是多言開悟他時，說名能立。如說聲無常者，是立宗言；所作性故者，是宗法言；若是所作，見彼無常，如瓶等者，是隨同品言；若是其常，見非所作，如虛空者，是遠離言。唯此三分，說名能立。

The statements having these [factors, i.e., the thesis, reason and example, made] on the occasion of convincing others, are the demonstration. For instance, “sound is impermanent” is the statement of the thesis. “Because of being produced” is the statement of the property of the subject [i.e., the statement of the reason]. “Whatever is produced is observed to be impermanent, like a pot, etc.” is the statement of the positive concomitance with the *sapakṣa* [, i.e., the statement of the positive example]. “Whatever is permanent is observed to be not produced, like ether, etc.” is the statement of the negative concomitance (*vyatireka*) [i.e., the statement of the negative example]. Only these three members are stated [to be the demonstration].<sup>6</sup>

A three-membered *sādhana* can consequently be written in its full form as follows:

<sup>5</sup> Cf. Tachikawa 1971: 120.

<sup>6</sup> Cf. Tachikawa 1971: 121–122. The phrase in the last square brackets is added in the Chinese translation.

<b>Proof (1)</b>	
Thesis:	Sound is impermanent,
Reason:	for sound is produced.
Positive example:	Whatever is produced is observed to be impermanent, like a pot;
Negative example:	Whatever is permanent is observed to be not produced, like ether ( <i>ākāśa</i> ).

In the NMu, the three-membered *sādhana* together with its various pseudo-forms is also the foremost topic. The same idea of *sādhana* as in the NP is found in the exposition of the basic theoretical framework in NMu 1, together with the autocommentary:

NMu k. 1a: *pakṣādivacanāni sādhanam*

宗等多言說能立。

The *sādhana* is the [three] statements consisting of the thesis and the other [two factors, i.e., the reason and the example].

NMu 1.1: 由宗、因、喻多言，辯說他未了義故，此多言於《論式》等說名能立。又以一言說能立者，為顯總成一能立性 (*sādhanam iti caikavacanānirdeśaḥ samastasādhanatvakyāpanārthaḥ*),<sup>7</sup> 由此應知隨有所闕名能立過。

Since the object [yet] unknown to someone else is made evident [to that person] by these [three] statements consisting of the thesis, the reason and the example, these [three] statements are said to be the *sādhana* in the *Vādavidhāna* and other [logical works of Vasubandhu]. Now, the expression “*sādhanam*” [here in k. 1a] is in singular form so as to show that the *sādhana* is a united [whole, even though it is comprised of three statements]. Thus it should be understood that the lack [of any of these statements] is called a fault of the *sādhana*.<sup>8</sup>

In all the passages cited above, the grammatical phenomenon that the word *vacana* (statement, *yan* 言) appears in plural form (*vacanāni/vacanair*, *duo yan* 多言) betrays the view of the NP and the NMu that a *sādhana* has more than two members, that is, specifically three.

In both the NP and the NMu, the term *sādhana* is also used in a more limited sense for the reason(-property), i.e., the predicate of the reason-statement, in the above proof “producedness” or “being produced” (*kṛtakatva*). Now, the *sādhana* is in contrast with *sādhya* (*suo li* 所立), the property to be proved or the inferable property, i.e., “impermanent” in the above proof. The former property possesses the force of proving and the latter property is to be proved by it to be present in the subject, i.e., “sound.” In this sense, the term *sādhana*, when used as a substantive, can be translated as “means of proof;” when used as an adjective, it can be rendered as “proving.” The translation of *sādhana* as *probans* and *sādhya* as

<sup>7</sup> Inami 1991: 76, n. 33; cf. NPT 19,5–6.

<sup>8</sup> Cf. Tucci 1930: 5–6; Katsura [1]: 109–111; Tillemans [1991] 1999: 85, n. 14; Inami 1991: 76–77.

*probandum*, which is frequently encountered, is also suitable for the present context. This meaning of *sādhana* can be found in the NP's classification of four types of contradictory reason (*viruddha*, *xiang wei* 相違), and as well as in that of ten types of pseudo-example (*dr̥ṣṭāntābhāsa*, *si yu* 似喻):

NP 3.2.3: *viruddhas̄ catuḥprakāraḥ / tadyathā / (1) dharmasvarūpaviparītasādhanaḥ / (2) dharmaviśeṣaviparītasādhanaḥ / (3) dharmisvarūpaviparītasādhanaḥ / (4) dharmiviśeṣaviparītasādhanaś ceti //*

NP<sub>Ch</sub> 12a15–16: 相違有四，謂法自相相違因，法差別相違因，有法自相相違因，有法差別相違因等。

The contradictory [reasons] are of four kinds, as follows: (1) the [reason] proving the opposite of the own form of the [inferable] property, (2) the [reason] proving the opposite of [some] specific attribute of the [inferable] property, (3) the [reason] proving the opposite of the own form of the property-possessor, and (4) the [reason] proving the opposite of [some] specific attribute of the property-possessor.<sup>9</sup>

NP 3.3–3.3.2: *dr̥ṣṭāntābhāso dviḍḍhaḥ / sādharmaḥ vaividharmaḥ ca // ta-ttra sādharmaḥ tāvad dr̥ṣṭāntābhāsaḥ pañcaprakāraḥ / tadyathā / (1) sādhanadharmāsiddhaḥ / (2) sādhyadharmāsiddhaḥ / (3) ubhayadharmāsiddhaḥ / (4) ananvayaḥ / (5) viparītanvayaś ceti // ... vaidharmaḥ nāpi dr̥ṣṭāntābhāsaḥ pañcaprakāraḥ / tadyathā / (1) sādhyāvyāvṛttaḥ / (2) sādhanāvyāvṛttaḥ / (3) ubhayāvyāvṛttaḥ / (4) avyātirekaḥ / (5) viparītavyātirekaś ceti //*

NP<sub>Ch</sub> 12b1–4: 似同法喻有其五種：一、能立法不成，二、所立法不成，三、俱不成，四、無合，五、倒合。似異法喻亦有五種：一、所立不遣，二、能立不遣，三、俱不遣，四、不離，五、倒離。

The pseudo-example is of two kinds, by similarity or by dissimilarity. Of these, first, the pseudo-example by similarity is of five kinds, as follows: (1) [an example where] the proving property (*sādhana*) is not established, (2) [an example where] the inferable property (*sādhyadhama*) is not established, (3) [an example where] both [properties] are not established, (4) [an example] without [the statement of] positive concomitance and (5) [an example where] the positive concomitance is reversed. ... Second, the pseudo-example by dissimilarity is of five kinds, as follows: (1) [an example where] the inferable property is not excluded, (2) [an example where] the proving property is not excluded, (3) [an example where] both [properties] are not excluded, (4) [an example] without [the statement of] negative concomitance and (5) [an example where] the negative concomitance is reversed.<sup>10</sup>

In the Chinese translation of the name for each contradictory reason, the word *sādhana* is consistently rendered as “reason” (*yin* 因). The Indian commentator Haribhadra also follows the same technique in glossing this word as *hetu* (reason). When commenting on the first kind of contradictory reason, i.e., the *dharmasvarūpaviparītasādhana*, he says:

<sup>9</sup> Cf. Tachikawa 1971: 125.

<sup>10</sup> Cf. Tachikawa 1971: 126–127.

NPT 39,4–5: *atra dharmasvarūpaṃ nityatvam / ayaṃ ca hetus tadviparītam anityatvaṃ sādhayati tenaivāvinābhūtatvāt /*

Here the own form of the [inferable] property is permanence. Now, this reason (*hetuḥ*) proves (*sādhayati*) the opposite (*viparīta*) of that [own form of the inferable property (*dharmasvarūpa*)], i.e., impermanence, because [it] is invariably concomitant only with that [opposite property].

When commenting on the word *sādhanadharmāsiddha* as the name leading the NP list of pseudo-examples, Haribhadra says:

NPT 44,5–11: *sādhanadharmo hetur asiddho nāstīti bhāṇyate / tataś ca sādhanadharmo 'siddho 'smin so 'yaṃ sādhanadharmāsiddhaḥ / ... evaṃ sādhyobhayadharmāsiddhayor api bhāvanīyam /*

That is to say, **the proving property**, the reason, **is not established**, i.e., does not exist. Hence, this *sādhanadharmāsiddha* is that in which the proving property is not established. ... With regard to the *sādhyadharmāsiddha* and *ubhayadharmāsiddha*, it should also be thought in this manner.

Haribhadra analyzes the term *sādhanadharmāsiddha* as a *bahuvrīhi* compound, and identifies the *sādhanadharmā* (proving property) with *hetu* (reason).<sup>11</sup> On the term *sādhanadharmā*, the NPVP explains further that: “This is both *sādhana* and property. Thus *sādhanadharmā*. What does it mean? The reason.”<sup>12</sup> Here, the *sādhanadharmā* is analyzed as a *karmadhāraya* compound. It refers to the property which is resorted to as the means of proof (*sādhana*) in an argument and therefore possesses the force of proving. When commenting on NP 3.3.1.(4) on *ananvaya*, Haribhadra directly glosses *sādhana* as *hetu*:

NPT 46,7–9: *vinānvayena vinā vyāptidarśanena sādhyasādhanayoḥ sādhyahetvor ity arthaḥ sahabhāva ekatravṛttimātram / pradarśyate kathyate ākhyāyate / na vīpsayā sādhyānugato hetur iti /*

The meaning is: **without [the statement of] positive concomitance**, i.e., without the presentation of the pervasion, [merely] **the co-occurrence**, i.e., merely the occurrence in one place, **of the inferable and the *sādhana***, i.e., of the inferable and the reason (*hetu*), **is indicated**, i.e., is stated or announced, [but] not the reason as followed by the inferable in accordance with the requirement of pervading.<sup>13</sup>

In the NMu classification of the pseudo-example, the name *sādhanadharmāsiddha* is replaced by *sādhanāsiddha*, hence *sādhanadharmā* by *sādhana*. Here, the *sādhana* is also used in the sense of reason(-property):

<sup>11</sup> See also NPT 47,9; 47,18: *sādhanadharmo hetuḥ /*

<sup>12</sup> NPVP 109,21–22: *sādhanāṃ cāsau dharmāś ca sādhanadharmāḥ / ka ity āha – hetur iti /*

<sup>13</sup> Cf. Tachikawa 1971: 127.

NMu 5.3: 「餘此相似」(k. 11d) 是似喻義。何謂此餘?謂於是處所立、能立及不同品, 雖有合、離而顛倒說。或於是處不作合、離, 唯現所立、能立俱有, 異品俱無。如是二法或有隨一不成、不遣, 或有二俱不成、不遣。

That “all other [kinds of example] different from them are pseudo-[examples]” means the pseudo-example. Which are those other [kinds] different from them? They are [examples] where there is [the statement of] the positive concomitance or [of] the negative concomitance with regard to *sādhya*, *sādhana* or *asapakṣa* (i.e., an individual used as negative example),<sup>14</sup> nevertheless, it is stated in reversed manner; or [examples] where only the co-occurrence of *sādhya* and *sādhana* or [only] the co-absence [of *sādhya* and *sādhana*] from *vipakṣa* is indicated, [but] without the statement of the positive concomitance or of the negative concomitance. [Pseudo-examples also include such cases where] with regard to these two properties [i.e., the *sādhya* and the *sādhana*], either (*anyatara*) [of them] is not established (*asiddha*) or not excluded (*avyāvṛtta*), or both (*ubhaya*) are not established or not excluded.<sup>15</sup>

The word *sādhana* (*sgrub palsgrub par byed palsgrub byed*) does not occur in the corresponding PS IV kk. 13–14, nor in the PSV on these verses:<sup>16</sup>

The pseudo-form of that [i.e., example] is [an example where] the reason (*gtan tshigs*), the *sādhya* or both are not established in or not excluded from the *asapakṣa* (*mi mthun phyogs*), or [where] the concomitance is reversed in two ways [i.e., in either positive or negative fashion], or [where] the concomitance is absent. (k. 13)

[An example where] the [inferential] sign (*rtags*) is not found and so on, or [where] the positive concomitance or the other [i.e., the negative concomitance] is reversed, is not a [correct] example. The [mere] aggregation [of two properties in one place] is not a [logical] connection, because the [logical] connection is [yet] not explicated. (k. 14)<sup>17</sup>

The term *sādhana* has here been completely replaced by the words *gtan tshigs* (*hetu*) and *rtags* (*liṅga = hetu*); the above cited passage NPT 46,7–9 also demonstrates that these terms are synonymous. Therefore, we can see that the terms *sādhanadharmā*, *sādhana* and *hetu* are interchangeable as referring to the reason-property.

<sup>14</sup> Cf. Kitagawa 1965: 277–278, n. 615.

<sup>15</sup> Cf. Tucci 1930: 40–41; Katsura [4]: 67–68.

<sup>16</sup> See Kitagawa 1965: 527,12–529,9; 277–281.

<sup>17</sup> K 152a5–6, 152b4–5: *gtan tshigs bsgrub bya gñis ldan min // rjes 'gro ltoḡ pa gñis dag ste // de'i mi mthun phyogs bsal dañ // rjes 'gro med pa der snañ ba'o //* (k. 13) *rags med sogs dañ rjes 'gro sogs // phyin ci log pa dpe ma yin // ñe bar bsdu ba ma 'brel ba // 'brel pa rab tu ma bstan phyir //* (k. 14); V 63a3–4, 63a7–b1: *gtan tshigs bgrub bya gñis ka med // mi mthun phyogs las med ma byas // rjes 'gro phyin log rnam pa gñis // liar snañ rjes 'gro med pa'añ yin //* (k. 13) *rags med sogs dañ dpe med dañ // rjes 'gro phyin ci log la sogs // 'brel par ma bstan pa yi phyir // ñer 'jal 'brel pa can ma yin //* (k. 14) (Kitagawa 1965: 527,12–15; 529,5–8)

In the NMu, the term *\*sādhanahetu* (*neng li yin* 能立因) must be considered as another relevant term relating to *sādhana*:

NMu 8: 「餘所說因生」 (k. 15b)<sup>18</sup>者，謂智是前智餘。從如所說能立因生，是緣彼義。

The sentence “[the inference (*anumāna*)] which is different [from perception] is derived from the reason as presented [above in the discussion of *sādhana*]” means that the [inferential] cognition is different from the above [perceptual] cognition. It is derived from the *\*sādhanahetu* as presented above. That is to say, it is based on that [*\*sādhanahetu*].<sup>19</sup>

Although I have found no Sanskrit material to confirm a *karmadhāraya* interpretation of this term, it is highly probable that it, if it were in Sanskrit, must be construed in the same way as the term *sādhanadharmā*: the former refers to a reason which possesses the force of proving, while the latter refers to a property which possesses the same force. Both terms refer to the reason(-property). The PS has a corresponding definition of inference for oneself (*svārthānumāna*):

PS II k. 1a–b: *svārthaṃ trirūpāl liṅgato 'rthadyk* <sup>20</sup>

[Inference] for oneself consists in observing an object through a triply characterized sign.<sup>21</sup>

Here, the term *\*sādhanahetu* has been replaced by *liṅga*,<sup>22</sup> and *liṅga* is just another name of *hetu*. Now, we have a series of synonyms: *sādhana*, *sādhanadharmā*, *\*sādhanahetu*, *hetu* and *liṅga*. All of them refer to the reason(-property) in this connection.

With this survey, we have exhausted almost all the occurrences of *sādhana* in the NP and the NMu. In both texts, the term *sādhana* sometimes refers to a “demonstration,” i.e., a three-membered argument, and at other times the reason(-property). There is no third option.

### 3. The new interpretation following the *Pramāṇasamuccaya*

Therefore, it seems surprising or even strange to some critical thinkers<sup>23</sup> that Chinese classical commentators consistently proclaim the *sādhana* to be the reason-statement

<sup>18</sup> Cf. Katsura [5]: 84, n. 2: *anyad nirdiṣṭalakṣaṇam*.

<sup>19</sup> Cf. Tucci 1930: 52; Katsura [5]: 91.

<sup>20</sup> Katsura [5]: 92.

<sup>21</sup> Cf. Hayes 1988: 231.

<sup>22</sup> See also NP 4: *anumānaṃ liṅgād arthadarśanam / liṅgaṃ punas trirūpam uktam / NP<sub>Ch</sub> 12b29–c2*: 言比量者，謂藉衆相而觀於義。相有三種，如前已說。“Inference is the observation of an object through an [inferential] sign. The sign has been said [above] to have three characteristics.” Cf. Tachikawa 1971: 128. The word *\*sādhanahetu* is also recurrent in NMu 10.14 on *prāptyapṛāptisama* and *ahetusama*. In the corresponding PSV passage, it has been replaced completely by *gan tshigs* (*hetu*). Cf. Katsura [7]: 46, nn. 3–4.

<sup>23</sup> Cf. Chen [1945] 1997: 4–12; Zheng 1996: 29–32, 173–176.



together with the positive and negative example-statements, or directly to be the *trairūpya* (*yin san xiang* 因三相), the triple characterization of a correct reason. Since the statements are three, and the characteristics of a correct reason are also three, the nature of *sādhana* as being three-membered is still perfectly preserved in this interpretation. Moreover, this interpretation of *sādhana* is ascribed to Dignāga himself as one significant innovation over earlier masters. Kuiji 窺基 (632–682 CE) says:

YMDS 37–38 / 93a29–b2: 陳那能立，唯取因、喻，古兼宗等。…宗由言顯，故名能立。

The *sādhana* of Dignāga only includes the reason and the example, while in early times the thesis and others are also included. ... The thesis is elucidated through the statements [of the reason and two examples]. Therefore, [the reason-statement and two example-statements] are named *sādhana*.

YMDS 50 / 93c28–94a3: 古師又有說四能立，謂宗及因、同喻、異喻。世親菩薩《論軌》等說能立有三：一宗、二因、三喻。以能立者，必是多言。多言顯彼所立便足，故但說三。

The early masters also talk about four [members of] *sādhana*. They are the thesis, the reason, the positive example and the negative example. The Bodhisattva Vasubandhu in the *Vādaśāstra* and other treatises says that there are three [members of] *sādhana*, i.e., (1) the thesis, (2) the reason and (3) the example. This is because the *sādhana* is necessarily comprised of more than two statements, and [*sādhana* of] more than two statements is already adequate for elucidating that which is to be proved (*sādhyā*).<sup>24</sup> Therefore, only three [members] are asserted [by him].<sup>25</sup>

YMDS 52 / 94a14–17: 今者陳那因、喻為能立，宗為所立。自性、差別二並極成，但是宗依，未成所諍。合以成宗，不相離性，方為所諍，何成能立？故能立中，定除其宗。

Now, Dignāga [asserts that] the reason and the example are means of proof (*sādhana*), and the thesis is what is to be proved (*sādhyā*). Both the subject (*\*svabhāva*, *zi xing* 自性) and the property (*viśeṣa*, *cha bie* 差別) [i.e., the qualificand and the qualifier in the thesis-statement,] have been well established (*prasiddha*, *ji cheng* 極成) [i.e., accepted by both the proponent and the opponent]. They are merely two substrata of the thesis-statement (*\*pakṣāśraya*,

<sup>24</sup> Note, Vasubandhu's concept of *sādhyā* is different from that of Dignāga in that only the inferable property but not the whole thesis-statement is said to be what is to be proved. Moreover, Vasubandhu's concept of *pakṣa* is also slightly different from that of Dignāga in that only the subject is said to be *pakṣa*. Cf. Frauwallner 1957: 33, frg. 1–3: *pakṣo vicāraṇāyām iṣṭo 'rthaḥ. sādhyābhidhānam pratijñeti pratijñālakṣaṇam. me daṅ sa bon daṅ mi rtag pa ṅid rnam s rjes su dpag par bya ba ṅid du dper brjod pa'i phyir chos tsam rjes su dpag par bya ba ṅid du mñon par 'dod do zes rtogs par bya'o*. "The *pakṣa* is the object one wishes to investigate. The definition of proposition (*pratijñā*) is that the proposition is the expression of what is to be proved (*sādhyā*). Examples for the definition of what is to be inferred (*anumeya* = *sādhyā*) is said to be fire, seed and impermanence. Hence, it shall be understood that only the property (*dharma*) is intended [here] as the definition of *anumeya*." Cf. Frauwallner 1957: 16.

<sup>25</sup> Cf. Frauwallner 1957: 16, n. 21.

*zong yi* 宗依), but not [by themselves] the point under disputation. Only when [they are] combined together so as to produce a thesis-statement, the invariable concomitance (*avinābhāva*, *bu xiang li xing* 不相離性) [of the subject with the property as expressed in the whole thesis-statement] then constitutes the point under disputation. So, how can these [two substrata] be the *sādhana*? Therefore, the thesis shall certainly be excluded from the *sādhana*.

Here, the reason-statement together with the example-statement is identified as *sādhana*. This time, the *sādhana* is in contrast with *sādhyā*, the thesis-statement, in that the reason and the example are means of proof and the thesis is merely what is to be proved. Although the *sādhana* here is also in contrast with *sādhyā*, the *sādhana* and the *sādhyā* here are different from the interpretation of the NP and the NMu where they are taken only as the reason-property and the inferable predicate. The *hetu* in Indian logic can mean either the whole reason-statement or only the reason-predicate in that statement. Hence, the exegetical movement from the reason-predicate to the whole reason-statement is not *prima facie* breaking news. Nevertheless, the implied significance of this movement is very important. It concerns not a mere terminological shift, but a shift of perspective in the basic consideration of what makes a good argument good. When used in this new sense, the term *sādhana* may be translated as “probative factor.”

In order to harmonize this new interpretation with the NP and NMu passages where the *sādhana* is clearly said to have more than two statements – i.e., three members<sup>26</sup> – the example is carefully counted as two members, i.e., the positive example and the negative example. The reason together with these two example-statements can then easily be interpreted as the three members of the *sādhana*. Kuiji continues:

YMDS 53 / 94a17–21: 問：然依聲明，一言云「婆達喃」，二言云「婆達泥」，多言云「婆達」。27今此能立，「婆達」聲說。既並多言，云何但說因、喻二法以為能立？答：陳那釋云：因有三相，一因、二喻，豈非多言？非要三體。由是定說宗是所立。

Question: However, according to Sanskrit grammar (*śabdavidyā*, *sheng ming* 聲明), a single statement is called *vacanam*, a pair of statements is called *vacane*, [and] more than two statements are called *vacanāni*. Here, the *sādhana* is mentioned in the form *vacanāni*. Since it is of more than two statements, why do you only assert the reason-statement and the example-statement, these two, as *sādhana*? Reply: Dignāga explains that the reason has three characteristics, i.e., the reason and the two examples. Aren't they three statements [in all]? It is not required that there shall be three separate substrata (*san ti* 三體). Hence, the thesis shall be definitely asserted to be [merely] what is to be proved (*sādhyā*).

Furthermore, when commenting on the last sentence in the NP 2.4 passage cited above (唯此三分，說名能立), Kuiji says:

<sup>26</sup> See the above cited passages NP 2, NMu k. 1a and NMu 1.1.

<sup>27</sup> The transcription of *vacanāni* given by Zenju 善珠 (723–797 CE) is *po da na ni* 婆達那膩 (IRMS 237a28) instead of the *po da* 婆達 given in this passage. *po da* 婆達 must be a corruption of *po da na ni* 婆達那膩. The IRMS is a running commentary on Kuiji's YMDS.

YMDS 304; 113b25–29: 《理門論》云：「又比量中，唯見此理：若所比處，此相審定(遍是宗法性也)；於餘同類，念此定有(同品定有性也)；於彼無處，念此遍無(異品遍無性也)。是故由此生決定解。」(NMu 5.5) 即是此中唯舉三能立。

The NMu says: “**and in an inference, only the following rule is to be observed: when the [inferential] sign** (*liṅga, xiang* 相 = *hetu*) **is ascertained in the subject of inference** (*anumeya, suo bi* 所比), that is, the reason is pervasively a property of the subject (*pakṣadharmatva, bian shi zong fa xing* 遍是宗法性), **and in cases other than [the subject], we remember its being [certainly] present in cases similar to that [subject in possessing the inferable property]**, that is, the reason is certainly present in similar instances (*sapakṣe sattvam, tong pin ding you xing* 同品定有性), **and its being [pervasively] absent where that [inferable property] is absent**, that is, the reason is pervasively absent from dissimilar instances (*vipakṣe 'sattvam, yi pin bian wu xing* 異品遍無性),<sup>28</sup> **then knowledge of this [subject] is generated.**”<sup>29</sup> This means the same as [when it] is [claimed] here that only three [members of] a *sādhana* are presented.

Here, the three members of *sādhana* are further identified with the three characteristics of a correct reason, the alleged basic criteria for a good argument in Buddhist logic. The presupposition made here is that the reason-statement and especially the positive and negative example-statements are nothing but the expression of the three characteristics, in the sense that these three statements are true if and only if the three characteristics are fulfilled.

This kind of interpretation of *sādhana*, though without being supported in the NP and the NMu, can indeed be supported from the PS, Dignāga’s magnum opus and his final work. Recent studies by Tom J. F. Tillemans have already showed that although in the NMu, Dignāga did consider the thesis-statement to be a member of *sādhana*, “in PS Dignāga did not consider the thesis-statement as being a *sādhana*, but nevertheless he most likely allowed its presence in a *parārthānumāna*.”<sup>30</sup> As pointed out by Tillemans, one passage from PS fits quite well with the intention to exclude the thesis-statement from *sādhana* while nonetheless letting it remain in the arrangement of a proof:

PSV ad PS III k. 1cd: *tatrānumeyanirdeśo hetvarthaviṣayo mataḥ* // (k. 1cd)  
*yan lag rnams la rjes su dpag par bya ba bstan pa gañ yin pa de ni kho bo cag*  
*gi sgrub byed ñid du bstan pa ni ma yin te de ñid las the tsom skye ba'i phyir*

<sup>28</sup> NP 2: *hetus trirūpaḥ / kiṃ punas trairūpyam / pakṣadharmatvaṃ sapakṣe sattvaṃ vipakṣe cāsattvam iti* // NP<sub>Ch</sub> 11b6–7: 因有三相。何等為三？謂遍是宗法性，同品定有性，異品遍無性。For translation and discussion, see Tachikawa 1971: 121; Katsura 1985: 161–162.

<sup>29</sup> Cf. Tucci 1930: 44; Katsura [4]: 74. The adverbs “certainly” (*ding* 定) and “pervasively” (*bian* 遍) qualifying “being present” (*astitva, you* 有) and “being absent” (*nāstitva, wu* 無) respectively are probably added in the Chinese translation. Cf. the parallel passage in PSV IV (K 150b5–7): *rjes su dpag pa la yan tshul 'di yin par mthoñ ste / gal te rtags 'di rjes su dpag par bya ba la ñes par bzui na / gzan 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 ñes pa bskyed par yin no* // (Kitagawa 1965: 521,8–13)

<sup>30</sup> Tillemans [1991] 1999: 71.

*ro // 'on te gtan tshigs kyi yul gyi don yin pa'i phyir de ni de ma sgrub par byed do (de ma sgrub par byed do K: des bsgrub par bya'o V) // (K 124b6–7, Kitagawa 1965: 471,5–8)*

In this regard, the presentation of what is to be inferred (*anumeya*) is held to concern the goal of the reason. (k. 1cd)

Among the members, the presentation of what is to be inferred is not presented by us to be the *sādhana*, because doubt will arise from it. However, because it concerns the goal of the reason, it [i.e., the thesis,] is to be established by that [i.e., the reason].<sup>31</sup>

Besides the exclusion of the thesis-statement from *sādhana*, the equivalence of the *sādhana* with the expression of three characteristics can also be found in the PS:

PSV *ad* PS III k. 1: *trirūpaliṅgākhyānaṃ parārthānumānam*.<sup>32</sup>

Inference for others (*parārthānumāna*) is the communication of a triply characterized sign (*liṅga*).

The idea of assigning the reason together with the positive and negative examples to express the three characteristics can be found in the NMu as well as in the PS:

NMu 5.6: 若爾喻言應非異分，顯因義故。事雖實爾，然此因言唯為顯了是宗法性，非為顯了同品、異品有性、無性，故須別說同、異喻言。

[Objection:] If so, then the example-statement must not be a separate member [from that of the reason], because it is [designed] to express the implication of the reason. [Reply:] Although the fact is actually so, yet the statement of the reason is only meant to express [the reason's] being a property of the subject, but not to express [the reason's] being present in similar instances and being absent from dissimilar instances. Therefore, it is necessary to express the positive and negative examples separately [from the reason-statement].<sup>33</sup>

PSV *ad* PS IV k. 7: *'on te de lta na dpe'i tshig kyañ tha dad par mi 'gyur te gtan tshigs kyi don bstan pa'i phyir ro // ... gtan tshigs ni mtshan ñid gsum pa can yin la / bsgrub bya'i chos ñid ni gtan tshigs kyi tshig gis bstan pa yin no // de las gtan tshigs lhag ma bstan par bya ba'i don du dpe brjod pa ni don dan bcas pa yin no // (K 151a2–4, Kitagawa 1965: 522,7–523,2)*

[Objection:] However, if so, even the example-statement will not be separated [from the reason], because it is [designed] to express the implication of the reason. [Reply:] ... Since the reason possesses three characteristics, [only the reason's] being a property of the subject (*sādhya* = *pakṣa*) is expressed by the

<sup>31</sup> Tillemans [1991] 1999: 71, translation slightly modified.

<sup>32</sup> Kitagawa 1965: 126, n. 154. The *parārthānumāna* is a verbalized inference and corresponds to the *sādhana* in the terminology of the NP and the NMu.

<sup>33</sup> Cf. Tucci 1930: 45–46; Katsura [4]: 76–77.

statement of the reason. In order to express the remaining [characteristics of the] reason other than that [first characteristic], it is meaningful to express the example.

Combining this idea with the PS's claim that the *sādhana* is nothing but the expression of the triple characterization of a correct reason, it is not difficult to arrive at the conclusion that only the reason and example are *sādhana*, and not the thesis. To preserve the nature of the *sādhana* as being three-membered, counting the example as two members may suggest itself. The separation of positive and negative examples naturally results from the idea that the second and third characteristics of a correct reason are to be expressed by them respectively. At the same time, the statement of thesis is always preserved in an inference, even though it is no longer recognized as a member of *sādhana*. This is also Dignāga's attitude as mentioned above.<sup>34</sup>

Therefore, the Chinese conception of *sādhana* as the reason together with two examples or being exactly the triple characterization of a correct reason can be regarded as a natural movement from Dignāga's late thought, and may to some extent reflect Indian views following Dignāga when Xuanzang was taught there. Although the Chinese tradition is alleged to have only the NP and the NMu as its root texts, the ideas presented in the Chinese commentarial literature on these two short treatises need not be limited to Dignāga's early views. On certain occasions, and to a certain extent, ideas in Chinese literature are even more probably based on his later views, as well as on Indian interpretations that were produced shortly after Dignāga and were not yet influenced by the revolutionary contributions from Dharmakīrti (c. 600–660 CE). However, clues for gaining certainty on this hereto unknown historical relation might always remain ambiguous, since no special reference to the subtle differences between earlier and later stages in Dignāga's thought could so far be found in the Chinese tradition. In this regard, recent studies on Dharmakīrti and his successors as well as on Dignāga himself will surely prove to be relevant to an improvement in our understanding of Chinese *hetuvidyā*.<sup>35</sup>

<sup>34</sup> Cf. n. 30.

<sup>35</sup> Unlike Dharmakīrti (Tillemans [1991] 1999: 72–73), Chinese tradition consistently retains the thesis-statement. The idea that the thesis-statement can be known by “implication” (*artha, yi* 義) or by “presumption” (*arthāpatti, yi zhun* 義准) is absent from Chinese sources. Nevertheless, like the tradition following Dharmakīrti, the Chinese tradition also pays a lot effort and takes a roundabout hermeneutic strategy so as to explain away the word *pakṣa* which always takes place at the beginning of the definition of *sādhana* in the NP and the NMu (cf. n. 26). The gist of such a strategy is to say that this word is so placed as to indicate exactly the aim or the object of *sādhana*. For details, see YMDS (54–56 / 94a21–b13) *ad* NP 1; YMDS (86–94 / 96c11–97b7) *ad* NP 2; For Wengui 文軌 (early 7<sup>th</sup> century)'s similar discussion, see ZYS (1.4b–5b) *ad* NP 2 and ZYS (2.2a–3a) *ad* NP 2.4; For Kuiji's ambiguous comment on NMu k. 13cd = PS IV. k. 6cd, see YMDS (305 / 113c6–10) *ad* NP 2.4. Shentai 神泰 (early 7<sup>th</sup> century), the author of the only extant commentary on the NMu, says nothing on relevant passages in the NMu. On one hand, he makes reference to his commentary on the NP, which however has been lost, and on the other hand, he misleadingly ascribes this new interpretation even to Vasubandhu, see YZMS (1.3b) *ad* NMu 1.1. Nevertheless, he has said something on *nyūnatā* (incompleteness), see below, n. 38. Furthermore, the author of the NP, Śāṅkarasvāmin, who was said to be a disciple of Dignāga, did know the PS. There are certain elements in the NP which can be found only in PS, e.g. NP 3.1(9): *eṣāṃ vacanāni dharmasvarūpanirākaraṇamukhena* NP<sub>Ch</sub> 11c7–8: 如是多言, 是遺諸法自相門故 ≈ PSV *ad* PS III k. 2 (K 125a5–6): 'di yañ chos kyi ran gi no bo dan 'gal bas sel ba'i sgo tsam zig bstan

#### 4. The “completeness” of an argument and the identification of the probative factors

As brought into light in Tillemans’ 1991 article, the above reinterpretations are not merely terminological issues, but reach deeper into the nature of “how logic works.”<sup>36</sup> The theoretical implication of these new interpretations can be clarified if we look at the matter from a different angle, and take into account the reinterpretation of the fault called “incompleteness”<sup>37</sup> (*nyūnatā*, *que jian guo xing* 缺減過性), which results from the new interpretation of *sādhana*. In NMu 1.1 Dignāga defined *sādhana* to be a three-membered argument, comprised of the thesis, the reason and the example. The lack of any one of these members results in the fault called “incompleteness.”<sup>38</sup> However, in the PS Dignāga says:

PSV *ad* PS III k. 1ab: *'dir yañ tshul gañ yañ ruñ ba cig ma smras na yañ ma tshañ ba brjod par 'gyur ro //* (V 40b2, Kitagawa 1965: 470,7–8)

Here [in saying that inference for others is the communication of a triply characterized reason], it shall also be called incomplete when any characteristic [of the three characteristics] is unstated.<sup>39</sup>

*pa yin la /* (Kitagawa 1965: 472,14–15). Moreover, the theory of four kinds of contradictory reason (*viruddha*, NP 3.2.3) can only be traced to the PSV *ad* PS III k. 26–27 (K 133b1–134a8), cf. Kitagawa 1965: 205–217. One aspect to consider in this context is the relationship between the composition of popular manuals on logic on the one hand and more theoretical works on the other hand. Elements of innovation might sometimes be diluted with more traditional viewpoint in these popular manuals composed immediately or even several centuries after the emergence of that idea. The *Hetutattvopadeśa* of Jitāri, which juxtaposes the NP with Dharmakīrti’s *Nyāyabindu*, may be thought of as one example for this tendency.

<sup>36</sup> Tillemans [1991] 1999: 81.

<sup>37</sup> For this development, see Tillemans [1991] 1999: 75.

<sup>38</sup> Cf. Tillemans [1991] 1999: 85, n. 14. When commenting on this passage, Shentai (YZMS 1.4a–b) gives three different explanations of “incompleteness,” among which the first two correspond respectively to that of Vasubandhu and that of scholars after Vasubandhu (but before Dignāga), and the last one to that of Dignāga and his followers. However, he attributes the first two explanations both ambiguously to a “certain master,” cf. Tucci 1930: 6, n. 5. The definition of “incompleteness” in the NP is basically the same as that in the NMu, see NP 6: *sādhanadoṣo nyūnatvam / pakṣadoṣaḥ pratyakṣādiviruddhatvam / hetuḍoṣo 'siddhānaikāntikaviruddhatvam / drṣṭāntadoṣaḥ sādhanadharmādyasiddhatvam / tasyodbhāvanam prāśnikapratyāyanam dūṣanam //* NP<sub>Ch</sub> 12c12–15: 謂初能立缺減過性、立宗過性、不成因性、不定因性、相違因性及喻過性，顯示此言，開曉問者，故名能破。For an English translation, see Tachikawa 1971: 129. NPVP (124,8–12) *ad* NPT (54,12–13) on this passage: ***sādhanadoṣo nyūnatvam sāmānyeneti / nyūnatvam pakṣādyavayavānām yathoktalakṣaṇarahitvam pramāṇabādhitvam iti yāvat / ayam arthaḥ – sādhanavākye 'vayavāpekṣayā nyūnatāyā atiriktatāyās ca sabhāsadaḥ purato 'bhidhānam yat tat sāmānyena dūṣanam / viśeṣatas tu pakṣadoṣodbhāvanam asiddhaviruddhānaikāntikadoṣodbhāvanam drṣṭāntadoṣodbhāvanam vā dūṣanam iti /*** “**The fault of the *sādhana* in general (*sāmānyena*) is incompleteness.** That is to say, incompleteness is the fact that the members including the thesis and others lack [one or more of] the above mentioned definitions, or is contradicted by [other] means of valid cognition (*pramāṇa*). This means: refutation is any expression in general of the incompleteness or redundancy (*atiriktatā*) with regard to any member in the statement of a *sādhana* in front of a witness (*sabhāsad*); in particular (*viśeṣatas*), however, refutation is either to point out the fault of thesis, or to point out the fault of unestablished, contradictory or inconclusive [reason], or to point out the fault of example.”

<sup>39</sup> Tillemans [1991] 1999: 85, n. 15, translation slightly modified.

This understanding changes not only how the fault called “incompleteness” as handed down from the early phase of Indian logic is understood, but also the conception of what kind of factor contributes to the “completeness” of an argument, in the absence of which the argument becomes “incomplete” or unsound. We are now inclined to call them the “probative factors.” Indeed, a number of elements can be regarded as being capable of contributing to the “completeness” of an argument. At first, there should be certain linguistic expression with certain ideas the proponent would like to communicate to the opponent. This expression should be capable of explicating ideas in accordance with certain semantic conventions. Even the intelligence of the opponent could be presupposed as part of the necessary prerequisites for an argument to be practically adequate, since he should be intelligent enough to pick out the meaning as being the one the proponent intended to convey. In addition, one might also include the overall situation of the debate as being one where arguments from each side are to be evaluated only according to principles for thinking rationally. But not all factors which are necessary for a rational exchange to occur contribute to the soundness of an argument in the same way. Therefore, by “probative factors,” we do not mean all the necessary conditions for an argument to be “complete” in a general sense, which are nearly infinite, but only those factors which were actually selected by thinkers in the history of logic to be in the focus of their theorization of argument. The notion of a “probative factor” is therefore just a meta-logical concept, not a logical one in the usual sense. This is a concept only used to represent or recapture the main concern of a logician in his theory of argument. In fact, we are bound to select only a limited number of elements for reflecting on the soundness of a sound argument in a theoretical manner. This does not prevent us from recognizing the fact that there must be other elements remaining untheorized in our present framework, or even yet unobserved.

The mere illustration of probative factors contributes to a theory of argument just as little as a good intuition of what a sound argument may look like; it is not yet a theory of logic. The key feature of a theory is that the probative factors identified in it are at the same time considered to be the criteria for discriminating in a general way a sound argument from an unsound one. Theories of argument can be based on different approaches to the identification of different kinds of probative factor, and as a result yield different systems of criteria for sound argument. In short, different identifications of probative factors betray different conceptions of argument, which may lead to different theories of argument, or even different logical theories.

Now, let us return to the historical account as given in the Chinese literature, which is in line with PS’s new interpretation of “incompleteness.”

YMDS 57 / 94b17–21: 世親菩薩，缺減過性，宗、因、喻中，闕一有三，闕二有三，闕三有一。世親已後，皆除第七。以宗、因、喻三為能立，總闕便非。既本無體，何成能立？有何所闕而得似名？

[According to] the Bodhisattva Vasubandhu, [there are seven cases of] incompleteness (*nyūnatā*). [Of them,] three are the lack of [only] one [statement] among the thesis, the reason and the example, three are the lack of two [statements among them], and one is the lack of all the three [statements]. [Scholars] after Vasubandhu all exclude the seventh case. Since the thesis, the reason and the example, as three [members], form a *sādhana*, it is impossible for

all of them to be lacking [and there is still an argument]. Since then, there would be no substratum (*wu ti* 無體) at all, what could be an argument (*sādhana*) and what [kind of argument] could be called faulty on account of being incomplete?

According to this view, logicians before Dignāga identified the probative factors with the statements of the thesis, the reason and the example. When one of these factors is lacking, the whole argument has the fault of incompleteness. A point that remains unclarified here is that the linguistic expression itself could contribute to the “completeness” or soundness of an argument in two ways. On one hand, the linguistic expression could be probative in representing a certain form of valid reasoning. On the other hand, it could be probative in that the reason-statement together with the example-statement is or is accepted to be true. According to contemporary logical theory, an argument is sound if and only if all its premises are true and the whole argument represents a certain form of valid reasoning. Therefore, if the identification of probative factors with the linguistic expression itself does not merely represent a good intuition of what a sound argument looks like, but is actually taken as resting upon a solid theory, it could possibly provide the Buddhist logicians with two different options in theorizing the “completeness” of an argument.

We name the first option the “formalist approach” in that the logical form itself is identified as the probative factor, forms the focus of theorization, and becomes the criterion for discriminating sound arguments from unsound ones. For the second option that takes the truth of premises to be the foremost criterion for finding sound arguments, we will speak of an “epistemic approach” or “dialectic approach,” depending on the interpretation of “truth” that is chosen. If we interpret a true statement as being approved by ascertained evidences (*\*niścayaprasiddha*), we have an “epistemic approach.” If interpreting a statement’s being true as merely being accepted to be true, i.e., being equally accepted by both sides in debate (*\*abhyupagamaprasiddha*, *gong xu ji cheng* 共許極成), we have a “dialectic approach.” Our text continues:

YMDS 57–58 / 94b21–26: 陳那菩薩，因一喻二，說有六過，則因三相六過是也。闕一有三，闕二有三，無闕三者。大師至彼六十年前，施無厭寺有一論師，名為賢愛，精確慈悲，特以貫世，因明一論，時無敵者，亦除第七。自餘諸師，不肯除之。因一喻二，即因三相。

[According to] the Bodhisattva Dignāga, six cases of the fault [of incompleteness] are mentioned concerning the reason, the first, with the examples, the last two (*yin yi yu er* 因一喻二).<sup>40</sup> They are the six faults concerning the three characteristics of a correct reason. [Of them,] three are the lack of [only] one

<sup>40</sup> Cf. RINM 30c29–31a2: 且「能立」者，即有二義：一一因二喻，二因一喻二。一因二喻，約因三相也；因一喻二，約因二喻也。“Here, the *sādhana* has two meanings: (1) one reason with two examples (*yi yin er yu* 一因二喻); and (2) the reason, the first, with the examples, the last two (*yin yi yu er* 因一喻二). The ‘one reason with two examples’ concerns the three characteristics of a correct reason. The ‘reason, the first, with the examples, the last two’ concerns the reason together with two examples.” Gomyō 護命 (750–834 CE)’s division between 一因二喻 and 因一喻二 in this passage is quite obscure. However, I have kept the room for such a subtle division in translating these two expressions differently, though Kuiji in the above passage equated the three characteristics with 因一喻二 but not 一因二喻.



[characteristic], three are the lack of two [characteristics], and there is no case where all the three [characteristics] are lacking. Sixty years before Xuanzang's arrival at the Nālandā Temple, there was a learned master (*śāstrin*, *lun shi* 論師) Bhadraruci (*xian ai* 賢愛), who was famous throughout the world for his acute thinking and compassionate heart. No one could compare with him in the discipline of *hetuvidyā*. He also excluded this seventh case. The other masters, however, were not willing to exclude it. The reason, the first, with the examples, the last two, is exactly the three characteristics of a correct reason.<sup>41</sup>

As is reported in the above passage, Buddhist logicians following Dignāga identified the factors contributing to the “completeness” of an argument directly with the three characteristics of a correct reason, the alleged basic criteria for a good argument in Buddhist logic. As a detailed account of the *trairūpya* formulae according to the Chinese tradition is not in place here, we can make no decision as to whether the “epistemic approach” or the “dialectic approach” was actually adopted by those Chinese logicians following Dignāga. Still, the evidence from our text clarifies that the “formalist approach” was not chosen. Towards this end, we just point out that the “incomplete” or unsound arguments which are to be ruled out by the three characteristics represent the same logical form with that of the above proof (1), which is typically a sound argument in Buddhist logic, regardless of its variety. Indeed, it is not difficult for us to abstract the following form from the above proof (1):

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Thesis:	$Sp$
Reason:	$Hp$
Positive example:	$(x) (Hx \rightarrow Sx)$
Negative example:	$(x) (\neg Sx \rightarrow \neg Hx)^a$

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<sup>a</sup>  $p = pakṣa$  the subject, “sound;”  $S = sādhyadharmā$  the inferable property, “being impermanent;”  $H = hetu$  the reason-property, “being produced.” Note that, the formalization here is just a provisional one adjusted to the present purpose and ignores aspects that are irrelevant.

<sup>41</sup> In fact, Kuiji is also unwilling to exclude the seventh possibility. Just a few lines after this passage, he says: 又雖有言，三相並闕。如聲論師，對佛法者，立「聲為常，德所依故，猶如擇滅。諸非常者，皆非德依，如四大種」。此「德依」因，雖有所說，三相並闕，何得非似？由此第七亦缺滅過。(YMDS 58–59 / 94b28–c3) “Again, there is also the case where the statement is complete but all the three characteristics are lacking. For example, an upholder of the permanence of sound (*śābdika*, *sheng lun shi* 聲論師), against a Buddhist, claims that ‘sound is permanent, because of being a substratum of qualities (*guṇāśraya*, *de suo yi* 德所依, cf. NP 3.2.1(4)), like cessation through analytical meditation (*pratisamkhyānirodha*, *ze mie* 擇滅). Whatever is impermanent is not a substratum of qualities, like the four great elements (*caturmahābhūta*, *si da zhong* 四大種).’ Although there is an argument from the reason ‘being a substratum of qualities,’ it lacks all the three characteristics. How can it not be faulty? Hence, the seventh case should also be counted as incomplete.” That is to say, there could be some linguistic expressions in which all the three characteristics are lacking, although expressions of this kind have no probative force at all. Huizhao 慧沼 (650–714 CE) gives a much clearer example for the seventh possibility: 如立「聲常，眼所見故」，虛空為同，盆等為異，三相俱闕。(YMDS 753 / 141c21–22) “For example, ‘sound is permanent, because of being visible.’ [Here,] ether is the similar instance. A dish, etc., are dissimilar instances. [The argument] lacks all the three characteristics.”

Moreover, if we regard the negative example as merely the contraposition of its positive counterpart, we could just skip it. Then, the whole process of reasoning can be considered as beginning from the statement of the positive example and ending with the thesis-statement. If the formalization is correct, the above process clearly represents a valid reasoning.

When commenting on the NP passage on refutation (*dūṣaṇa*, NP 6),<sup>42</sup> Huizhao<sup>43</sup> has provided each one of these seven possibilities with an example.<sup>44</sup> Here, we just concern the first three where only one characteristic is lacking respectively:

YMDS 752 / 141c12–16: 闕一有三者：如數論師，對聲論立：「聲是無常，眼所見故」，聲無常宗，瓶、盆等為同品，虛空等為異品，此但闕初而有後二；聲論對薩婆多立：「聲為常宗，所聞性故」，虛空為共同品，瓶、盆等為異品，闕第二相；「所量性」因，闕第三相。

The three [kinds of incomplete argument where only] one [characteristic] is lacking [respectively] are for example: (1) When a Sāṅkhya, against a Śābdika, claims that “sound is impermanent, because of being visible (*cākṣuṣatva*, *yan suo jian* 眼所見).” The thesis (*pakṣa*) that sound is impermanent has a pot and a dish, etc., as similar instances (*sapakṣa*, *tong pin* 同品), and has ether, etc. as dissimilar instances (*vipakṣa*, *yi pin* 異品). The [argument] lacks only the first [characteristic] but has the last two [characteristics]. (2) When a Śābdika, against a Sarvāstivādin (*sa po duo* 薩婆多), claims that “sound is permanent – thesis, because of being audible (*śrāvaṇatva*, *suo wen xing* 所聞性).” [Here,] ether is the similar instance equally [accepted by both sides] (*gong tong pin* 共同品). A pot and a dish, etc., are dissimilar instances. [The argument] lacks [only] the second characteristic. (3) The reason “being cognizable (*prameyatva*, *suo liang xing* 所量性)” [for the thesis “sound is permanent”] lacks [only] the third characteristic.

If we present all the three arguments in a “syllogistic” manner with subject-predicate statements, skip the negative example and all the individual cases cited and refer to the “positive example” just as “example” for the sake of convenience, we end up with the following three proofs:

	<b>Proof (2)</b>	<b>Proof (3)</b>	<b>Proof (4)</b>
Thesis:	Sound is impermanent,	Sound is permanent,	Sound is permanent,
Reason:	for sound is visible.	for sound is audible.	for sound is cognizable.
Example:	Whatever is visible is im- permanent.	Whatever is audible is per- manent.	Whatever is cognizable is per- manent.

<sup>42</sup> See n. 38.

<sup>43</sup> The YMDS from the commentary on NP 3.3.1(1) to the end is actually written by Huizhao after the death of his teacher Kuiji, see Zheng 2010: 605.

<sup>44</sup> See YMDS 752–753 / 141c11–22.

It is not a surprise to find out that all the unsound arguments illustrated here and the above proof (1) as a sound argument share the same logical form. The differences are only as follows:

In proof (2), the reason-statement “sound is visible” is not true, in that sound is clearly not visible. Here, the proposition  $Hp$  is false. In this case, only the first characteristic *pakṣadharmatvam*, i.e., the reason’s being (pervasively) a property of the subject (*bian shi zong fa xing* 遍是宗法性), does not obtain or is not fulfilled.<sup>45</sup>

In proof (3), the example-statement “whatever is audible is permanent” is not true. It cannot be instantiated in existent individuals apart from the subject “sound,” since only sound is audible. Here, the positive example should be interpreted as a statement with existential import, like  $(x) ((x \neq p \ \& \ Hx) \rightarrow Sx) \ \& \ (\exists x) (x \neq p \ \& \ (Hx \ \& \ Sx))$ .<sup>46</sup> The whole conjunction is false just because the last conjunct is false. In this case, only the second characteristic *sapakṣe sattvam*, i.e., the reason’s being (certainly) present in similar instances (*tong pin ding you xing* 同品定有性) is not fulfilled, since no similar instance or nothing permanent apart from sound itself instantiates the reason-property “being audible.”<sup>47</sup>

In proof (4), the example-statement that “whatever cognizable is permanent” is also not true. There certainly are impermanent things which are not only cognizable but also different from sound, say a pot. Here, the first conjunct in the above conjunction is false. Hence, the whole conjunction is false. In this case, only the third characteristic *vipakṣe ’sattvam*, i.e., the reason’s being (pervasively) absent from dissimilar instances (*yi pin bian wu xing* 異品遍無性), is not fulfilled, since the dissimilar instances, things not “being permanent” apart from sound itself, also have the reason-property “being cognizable,” like a pot.<sup>48</sup>

In all the three cases, a valid form of reasoning does not perform a role in discriminating sound arguments from unsound ones. Arguments are considered as unsound only on account of the lacking of this or that characteristic. The “probative factor” is in this theory not

<sup>45</sup> Cf. NP 3.2.1(1): *śabdānityatve sādhye cākṣuṣatvād ity ubhayāsiddhaḥ* // NP<sub>Ch</sub> 11c12–13: 如成立聲為無常等，若言是眼所見性故，兩俱不成。“When one is to prove that sound is impermanent, [the reason] ‘because of being visible’ is not established for both (*ubhayāsiddha*).” Cf. Tachikawa 1971: 123.

<sup>46</sup> Oetke 1994: 24, ES<sub>+eva</sub>4.

<sup>47</sup> Cf. NP 3.2.2(2): *asādhāraṇaḥ śrāvaṇatvān nitya iti / tad dhi nityānityapakṣābhyām vyāvṛttatvān nityānityavinirmuktasya cānyasyāsambhavāt saṃśayaheṭuḥ / kimbhūtasyaśya śrāvaṇatvam iti* // NP<sub>Ch</sub> 11c22–24: 言不共者，如說聲常，所聞性故，常、無常品皆離此因，常、無常外餘非有故是猶豫因，此所聞性其猶何等？“An uncommon (*asādhāraṇa*) [reason] is: ‘[Sound is] permanent, because of being audible.’ For, since this [reason] is [certainly] excluded from both the permanent and impermanent kinds (*pakṣa*, *pin* 品) [apart from the subject ‘sound’], and since anything else which is different from permanent and impermanent is impossible, this [reason] is a cause for doubt. [The question remains:] ‘What kind of [thing] has audibility?’” For translation and discussion, see Tachikawa 1971: 124; Oetke 1994: 33–35.

<sup>48</sup> Cf. NP 3.2.2(1): *sādhāraṇaḥ śabdaḥ prameyatvān nitya iti / tad dhi nityānityapakṣayoḥ sādhyatvād anaikāntikam / kiṃ ghaṭavat prameyatvād anityaḥ śabda āhosvid ākāśavat prameyatvān nitya iti* // NP<sub>Ch</sub> 11c19–22: 共者，如言聲常，所量性故，常、無常品皆共此因，是故不定。為如瓶等，所量性故，聲是無常；為如空等，所量性故，聲是其常？“A common (*sādhāraṇa*) [reason] is: ‘Sound is permanent, because of being cognizable.’ For, since this [reason] is common to both the permanent and impermanent kinds [apart from the subject ‘sound’], it is inconclusive (*anaikāntika*). [The question remains:] ‘Is sound impermanent because of being cognizable, like a pot, or permanent because of being cognizable, like ether?’” Cf. Tachikawa 1971: 124.

the logical form, but the set of the three characteristics, just as the three characteristics are proclaimed by logicians following Dignāga as *sādhana*, means of proof. Therefore, in identifying the three characteristics as the probative factor, the “formalist approach” is not the approach actually stepped on by Buddhist logicians.

Moreover, each case above where one characteristic is lacking or is not fulfilled can be reduced to the scenario where one premise in the argument, either the reason-statement or the example-statement, is not true. In this sense, the three characteristics concern nothing formal. They are only the definition of the truths of the reason-statement and the example-statement, i.e., the definition of the truths of the premises in an argument, in the sense that all the premises are true if and only if all the three characteristics are fulfilled. Therefore, in identifying the three characteristics as probative factor, the implied intention is that the essential factors or criteria for discriminating a sound argument from unsound one should be the truths of the premises. The theory of *trairūpya* is only a theorization of this implied intention. It is only in this sense that the reason together with the positive and negative examples is also proclaimed to be a “probative factor,” the *sādhana*. Whether the emphasis is put on the three characteristics or on the reason and the examples is only a matter of the level on which this implied intention is to be presented, the level of the meta-language or that of the object-language.

However, one might argue in favor of a formalist interpretation of Buddhist logic that: Since at least the statement of the reason and that of the example are recognized as *sādhana* in this new interpretation following PS, there is certainly an awareness of the logical form of an argument coming to the core in Buddhist theorization of argument. In this sense, the “formalist approach” has not been totally neglected by Buddhist logicians following this new interpretation of *sādhana*. As a matter of fact, what is actually at stake in this new interpretation is not the form of these two members, but their truth. As we have said above, on the one hand, a good intuition of what a sound argument looks like does not by itself amount to a theory of argument, let alone to a “formalist” theory. The Buddhist view of the three-membered argument is just a representation of this good intuition. Moreover, there is only one form which is actually elaborated in this form of Buddhist theory of three-membered argument.<sup>49</sup> It is nothing but a linguistic standard for all the arguments to follow. At any rate, a formal logic does not come about when there is only one form of reasoning, which is neither compared with other equally valid forms of reasoning, nor with other invalid ones. On the other hand, to adopt an approach other than a “formalist” one and to take some factors other than the logical form itself as the theoretically most significant does not necessarily imply that the other equally necessary factors, esp. the logical form, are rejected or considered to be irrelevant to the “completeness” of an argument. To adopt

<sup>49</sup> This is partly demonstrated by the constant practice of transforming a negative statement into its affirmative counterpart, cf. NP 2.3: *vaidharmyeṇāpi / ... tadyathā / yan nityaṃ tad akṛtakaṃ dṛṣṭaṃ yathākāśam iti / nityasabdenātrānityatvasyābhāva ucyate / akṛtakaśabdenāpi kṛtakatvasyābhāvaḥ / yathā bhāvābhāvo 'bhāva iti // NP<sub>Ch</sub> 11b15–18: 異法者，...，謂若是常，見非所作，如虛空等。此中常言表非無常，非所作言表無所作，如有非有說名非有。 “[The example] by dissimilarity [i.e., the negative example] is ... for instance, ‘whatever is permanent is observed to be non-produced, like ether.’ Here, the negation (*abhāva*) of being impermanent is said by the word ‘permanent,’ and the negation of being produced is said by the word ‘non-produced,’ like non-being (*abhāva*) is the negation (*abhāva*) of being (*bhāva*).” Cf. Tachikawa 1971: 121.*

one particular approach just concerns the focus of theorization and relegates other possible candidates for a “probative factor” to a position at the edge of the horizon of a given framework, not outside of it.<sup>50</sup>

Therefore, to interpret the Buddhist three-membered argument merely on its face value as some Indian equivalence to the Aristotelian syllogism might well be an over-interpretation.<sup>51</sup> For such an interpretation, the thesis or conclusion has to be taken into account so that a form representing the complete process of reasoning can be available for further considerations concerning its being valid or not. However, this is obviously not the intention of logicians following Dignāga, in that the thesis is explicitly excluded by them from “probative factors” and from their fundamental considerations concerning an argument’s being tenable or not.

## 5. Conclusion

In the development from Vasubandhu to Dignāga and the latter’s Indian and Chinese followers, and in the new interpretation of *sādhana* as the triple characterization of a correct reason (*trairūpya*) instead of the linguistic expression of a three-membered argument, what comes to the fore is a gradually clearer conception of what is essentially decisive for an argument to be good or sound. In identifying the decisive factor as the *trairūpya* or the truth of premises, Dignāga and his followers lead the Buddhist theory of argument to an approach that sharply different from that of the formal logic of their European colleagues.

A crucial problem that remains undecided, however, is whether the “epistemic approach” or the “dialectic approach” was adopted in further historical development after Dignāga in India and China. As we have said, we leave the answer open at the present stage. I believe that a solution will come about with a comparative study of the interpretation of *trairūpya* by Chinese logicians and that by Indian Buddhist logicians after Dignāga, e.g. Dharmakīrti.<sup>52</sup>

<sup>50</sup> Indeed, there are other minor faults beyond the scope of *trairūpya* which concern the logical form of a statement, cf. NP 3.3.1(5): *viparītānvayo yathā / yat kṛtakam tad anityam dṛṣṭam iti vaktavye yad anityam tat kṛtakam dṛṣṭam iti bravīti // NP<sub>Ch</sub> 12b14–15*: 倒合者，謂應說言，諸所作者，皆是無常，而倒說言，諸無常者，皆是所作。“[An example where] the positive concomitance is reversed is that: One states ‘whatever is impermanent is observed to be produced,’ when he should say ‘whatever is produced is observed to be impermanent’;” NP 3.3.2(5): *viparītavayatireko yathā / yad anityam tan mūrtaṃ dṛṣṭam iti vaktavye yan mūrtaṃ tad anityam dṛṣṭam iti bravīti // NP<sub>Ch</sub> 12b25*: 倒離者，謂如說言，諸質礙者，皆是無常。“[An example where] the negative concomitance is reversed is that: one states ‘whatever is corporeal (*mūrta*, *zhi ai* 質礙) is observed to be impermanent,’ when he should say ‘whatever is impermanent is observed to be corporeal’.” Cf. Tachikawa 1971: 127, 128.

<sup>51</sup> This is exactly the conclusion of Tillemans’ 1991 article (Tillemans [1991] 1999: 78–81), where he clearly shows that the thesis or conclusion constitutes “an integral part of the syllogism,” but not of the Buddhist *sādhana*, and that this fact foreshadows the “fundamental incommensurability” between syllogism and *sādhana*. To certain extent, my treatment of the concept of *sādhana* in Chinese literature could be regarded as presenting the matter “from a slightly different angle.”

<sup>52</sup> I have made some preliminary attempts in this direction, esp. on the concept of *sapakṣa* and *vipakṣa* in Chinese Buddhist logic, and on a logical reading of the second characteristic under the Chinese interpretation, see Tang 2015: 289–307, 323–336. For the most extensive and profound analysis of the “epistemic operator” in Indian logic and of the *trairūpya*, see Oetke 1994.

## References and abbreviations

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- IRMS** Inmyō ronsho myōtō shō 因明論疏明燈抄 (Zenju 善珠): T68, no. 2270.  
**NMu** Dignāga, Nyāyamukha. See Katsura [1]–[7].  
**NP** Śāṅkarasvāmin, Nyāyapraveśa. See Tachikawa 1971: 140–144; Chinese translation, T32, no. 1630.  
**NP<sub>Ch</sub>** Chinese translation of NP: Yin ming ru zheng li lun 因明入正理論, T32, no. 1630.  
**NPT** Haribhadra, Nyāyapraveśakaṭīkā. See Jambuvijaya 2009: 13–55.  
**NPVP** Pārśvadeva, Nyāyapraveśakavṛttipañjikā. See Jambuvijaya 2009: 56–126.  
**PS(V)** Dignāga, Pramāṇasamuccaya(vṛtti), Tibetan translation. See Kitagawa 1965.  
**RINM** Daijō hōssō kenjin shō 大乘法相研神章. Chapter 10 Ryakken inmyō nisshōri mon 略顯因明入正理門 (Gomyō 護命): T71, no. 2309, 29a5–36b24.  
**T** Taishō Shinshū Daizōkyō 大正新脩大藏經. Tokyo 1924–1935.  
**YMDS** Kuiji 窺基, Yin ming da shu 因明大疏. See Zheng 2010; also T44, no. 1840.  
**YZMS** Shentai 神泰, Yin ming zheng li men lun shu ji 因明正理門論述記. Woodprint edition. Nanjing 1923.  
**ZYS** Wengui 文軌, Yin ming ru zheng li lun shu 因明入正理論疏, abbreviated as Zhuang yan shu 莊嚴疏. Woodprint edition. Nanjing 1934.

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