Nāgārjuna's Dialectic and Buddhist Logic (3)
——Esp. in reference to the identity and difference between their respective examples (*dṛṣṭānta*) ——

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Metaphorical examples that Nāgārjuna uses in his dialectical '*saccikaṭṭhaparama-ṭṭhena*' treatises seem to bear a similar function as that of logical examples (*dṛṣṭāna*). In his voluminous commentary *Mahāprajñāpāramitotpāda-śāstra*, especially in the 6th fascicle [*Ta-chih-tu-lun*: Taoshō 25 (No. 1509), 101c-105c], he enumerates as many as ten metaphorical examples as adequate comparisons for corroborating the insight of *śūnyatā* or *niḥsvabhāva*. What is common in the use of these metaphorical examples is to disclose the *dual natured reference*, such that whatever is experienced bears formal presence, and yet it is simultaneously devoid of substantial existence, i.e., apparent existence and real non-existence. In this paper it is intended to clarify the theoretical basis of Nāgārjuna's metaphorical examples, such as, *māyā*, applied in his dialectical treatises. Whether did Nāgārjuna think of a theoretical basis for his use of metaphorical example as parallel with that of logical demonstration (*dṛṣṭānta*) ? This question, I think, is relevant, because, being an adept logician and dialectician, he must have examined the efficacy and the validity of metaphorical examples applied in his treatises in parallel with those of logical examples. As an indirect piece of evidence for asserting that *māyā* example is based on a similar theoretical basis as that of logical demonstration, I call attention to Bhāvaviveka's syllogistic formula of demonstration in which the use of metaphorical examples occurs. The purpose of this paper is to probe the meaning of Nāgārjuna's *māyā* metaphor in parallel with the principle of logical example.

In general, the propositional symbol (sentence) is conceived as embodying the relationship of subject and predicate terms. The subject term refers to non-linguistic items such as things or facts, whereas the predicate term relates general conceptions to it. Grammatically, the former is introduced by nouns or substantivals through nominalization, while the latter, by verbs or verb-like, adjectival, participial, etc.

Based on these two criteria, i. e., categorial and grammatical, J. F. Staal tried to establish in 1960 ["The Construction of Formal Definitions," *Transactions of Philological Society*, p. 91] that in Sanskrit, like other Indo-European languages, nominalized elements appear as the subject, and only elements which ae not nominalized as the predicate. In this connection, he determined also that the function of a Sanskrit sen-tence is predicative and that its negation is the negation of its predicate and not of its subject. Thus, the view of Schayer (1932) and Kunst (1959) that Indian logic operates as a rule with propositional assertions and their variables, has been attested in a wider context. It was due to the same theoretical basis that I transcribed into symbolic notation the initial round of arguments between the Theravādin and Pudgalavadin sects as recorded in the *Kathāvatthu* [Cf. *JIBS*, 39 (No. 2), 20-24].

In 1997, I presented another paper on a Buddhist critique against the Vaiśeṣika and Sāṃkhya systems of philosophy as recorded in the *Kalpanāmaṇḍitikā* [*Tachuang-yen-lun-ching*, Taishō 4 (201), Topic2 p. 258c-261a]. The refutation is unique in the sense that the causal theories of the both schools were repudiated on the ground that both systems lacked an adequate example. Logical exemplification (*dṛṣṭānta*) means (1) corroboration of the linkage of two propositions as "$p \supset q$" (if smoke, then fire) in reference to a given class of variables 'x' (*sapakṣa* : a kitchen, etc.) and likewise (2) contrapositive corroboration of the linkage of two negated propositions as "— $q \supset -p$" (if no fire, then no smoke) in reference to the opposite class of variables 'y' (*vipakṣa*: a water tank, etc.). For repudiating the Sāṃkhya causality, the Buddhist critique points out that there is no example to corroborate the two contradictory propositions referring to the Sāṃkhya monistic principle, namely: "*Pradhāna* (*noumenon*) is permanent and immanent in all phenomena," and "is simultaneously transcendent from all of them." These contradictory propositions preclude the possibility of an empirical example. As to the Vaiśeṣika causality, the Buddhist critique questions about the validity of induc-tive method which the school-men prided as capable of discovering all things, caus-alities, relations, and so forth. Taking up the causal relation between a jar and broken pieces of clay as an example, the Buddhist critique questions: How could a prop-osition that refers to the presence of an un-broken jar be linked with another prop-osition that refers to broken pieces of clay? When an unbroken jar is present, there should be no broken piece of clay, and *vice*

versa. In this context, no linkage is ascertained between two propositions as true, irrespective of whether the linkage means identity or causality. This mutual exclusion of the two referential variables has its well known parallel in Nāgārjuna's use of a metaphor of light and darkness. In his *Vigrahavyāvartanī*, Nāgājuna dialectically repudiates a possibility of co-presence of light and darkness on the basis that their natures mutually exclude each other, although convention takes their co-presence for granted to explain a fact of illumination. If light and darkness are respectively symbolized as variables 'x' and 'y,' I contend that an assumption of their co-presence creates the dialectical context, in which, 'x' and 'y' are not separated but coalesced in the mind as dual natured reference 'xy.'

　　Among the Mādhyamika school-men, Bhāvaviveka, who initiated the Svātantrika tradition, advocated the syllogistic formula of demonstration for the insight of *śūnyatā* in contrast to the Prāsaṃgikas who exclusively advocated the *prasaṃga* method (i. e., *reductio-ad-absurdum argument*). Bhāvaviveka is known to have upheld that in public debate, the Mādhyamikas may have to debate with other philosophical schools through a syllogistic demonstration equipped with thesis, reason,and example. In his *Karaṭala-ratna* [*The Treasure within the Hand* or *Ta-ch'êng-chang-chen-lun*, Taishō 30 (No. 1578), 268 ff], Bhāvaviveka presented two model arguments to demonstrate the insight of *śūnyatā*. In one, the subject term is a variable of empirical things, and in another, it is a variable of trans-empirical *dharmas*, but the both predicates are identical in terms of *śūnyatā* (devoid of existence or reality). This negation is characterized by a conditional adverbial term as *'paramārthatas'* or *'tattvatas'* (from the point of view of ultimate truth) and exemplified by metaphorical examples. [Cf. N. Aiyaswami Saster: *Karatalaratna of Bhavya*, Visva-Bharati Annals II (1949), i-xvi, 1-124]

　　(1) *tattvataḥ saṃskṛtā śūnyā māyāvat pratyayodbhavāt* / (真性有為空, 如幻縁生故)

　　　　Thesis: In ultimate truth, whatever is empirical is devoid of its existence,

　　　　Reason: Because its origination depends upon causes and conditions,

　　　　Example: Like a magical apparition (that is devoid of real existence).

　　(2) *asaṃskṛtās tv asvabhbhūtāḥ khapuṣpavat* // (無為無有実, 不起似空華)

　　　　Thesis: [In ultimate truth,] whatever is transcendent has no existential reality,

　　　　Reason: Because it is devoid of [empirical] origination.

　　　　Example: Like sky-flowers [that is devoid of existential reality].

　　In my article of 1991, I probed a view that Nāgārjunas dialectic was in part in-

tended to resolve the logical deadlock of the Abhidharmist controversy between the Theravādin orthodoxy and Pudgalavādin heterodoxy. The Theravādins upheld that *dharmas* alone are real. The school-men were compelled to defeat the Pudgalavādin's heresy that *pudgalas* too are real and transcendent. In that same article, I introduced a view that Nāgārjuna's method of dialectic contributed to the solution of the *Kathāvatthu* logical deadlock I believe that the syllogistic formulas of the Svā-tantrika not only support my point of view but also explain the meaning of the meta-phorical examples.

　Briefly explaining the origin of the logical deadlock, first, the Theravādin prepared two propositions in order to defeat the Pudgalavādin [Cf. Rhys Davids's translation: *The Points of Controversy or Subjects of Discourses*, PTS, 1915]:

　(1)　*upalabbhati-saccikaṭṭhaparamaṭṭhena-ti*

　　　Whatever is known in the sense of a genuinely real thing,

　(2)　*saccikaṭṭho paramaṭṭho tato so upalabbhati saccikaṭṭhaparamaṭṭhena-ti*

　　　"Whatever is known in the same way as a genuinely real thing is known.

　Transcribing the referential entity '*dharmas*' as the members of a variable 'x' and the two related propositions respectively as "p" and "q," I can simplify the linkage of the two propositions as (x) p ● (x) q. This means that the two propositions can be linked as true when the reference is transcendent *dharmas* 'x.' On the other hand, when the variable 'y,' such as empirical *pudgalas*, is applied to the same two propositions, the Theravādin hoped to see the result as (y)−q ● (y)−p. This means that the class of *pudgalas* 'y' is clearly determined as empirical, and the Pudgalavādin's claim that *pudgalas* are also real and transcendent is falsified . But the Pudgalavāsdin's arguments in rejoinder ingeniously lead to an unexpected mutual invalidation and logical deadlock. The following chart, though comprising only the first five rounds of their exchange, will explain the underlying thoughts of the both parties on the subject of *pudgala*.

<div align="center">Mutual Invalidation: Transcendent versus Empirical</div>

I. Theeravādin's Refutation	II. Pudgalavadin's Rejoinder
Pudgalavādin's Thesis:	Theravadin Thesis:
(y){p ●−q} is false, because 'p ⊃ q';	(y){−p ●q} is false, because '−p ⊃−q';
(y){p ●−q} is false, because '−q ⊃ −p.'	(y){−p ●q} is false, because 'q⊃p.'

Hence, the thesis (y){p ●–q} is false.　　　Hence, the thesis (y){–p ●q} is false.

III. Pudgalavādin's Refutation

IV. Pudgalavādin's Application

Theravādin thesis: (y){–p ●q}

can be refuted, because '–p ●–q';

it can be refuted, because 'q⊃p.'

Hence, (y){–p ●q} can be refuted.

Our thesis: (y){p ●–q} is not falsified;

Your refutation –[(y){p ●–q}] is not

acceptable, because 'p⊃q.' and '–q ⊃ –p.'

Hence, (y){–p ●q} is not acceptable.

V. Pudgalavādin's Conclusion

Our thesis (y){p ●–q} is not refuted,

because 'p ●q' is not compelled;

Your refutation –[(y){p ●–q}] is not convincing,

because '–q ●–p' is not compelled;

Our thesis (y){p ●–q} is not refuted,

because neither 'p ●q' nor '–q ●–p' is compelled.

As evident in this chart, the logical principle of dual corroborations (*anvaya-vyatireka*) was already strictly adhered by Buddhist debaters at the time of *Kathāvatthu*. If the dual corroborations result in the form of (x){p ●q} and (y){–q ●–p}, the demonstration is valid, i. e., because *dharmas* and *pudgalas* are clearly differentiated. If, on the other hand, the corroborations result in either (y){p ●–q} or (y){q ●–p}, the demonstration is invalid, because the given variable 'y' is cross-boundary, i. e., partially identified with 'x.' Thus, the Pudgalavādin insisted that although their thesis is cross-boundary as (y){p ●–q}, insofar as the Theravādin's thesis on *pudgala* remains also to be cross-boundary as (y){–p ●q}, they did not feel compelled to acknowledge defeat. Thus, it became the major Abhidharmist task how to deal with this problem of cross-boundary, mutual invalidation on the nature of *pudgalas*. It was necessary either to clearly seperate the class of *dharmas* 'x' and that of *pudgalas* 'y' respectively into the transcendent and empirical domain. Or, since this separation is not possible as long as it is dealt by logical convention as evident in the above chart, it was inevitable to bring the status of *dharmas* down toward the empirical domain through total identification but upon one single condition, that both variables are devoid of reality. This was what Nāgārjuna accomplished through the dialectic of *śūnyatā*.

Bhāvaviveka's two model arguments concisely express the same. Whatever is empirically existent (有為) is predicated as devoid of existence (空), on the ground

that it has dependent orgination (縁生故), whereas whatever is transcendent (無為) is predicated as devoid of existential reality (無有実), on the ground that it has no origination to begin with (不起). The given examples are respectively "magical apparrition" (*māyāvat*) and "sky-flower" (*kha-puṣupavat*), which are included in Nāgārjuna's list of metaphorical examples. Thus, Bhāvaviveka's two syllogistic demonstrations incorporated metaphorical examples in parallel with the regular logical demonstration.

Three points are in order: First, in the *Kathāvatthu*, the Theravādin regarded *dharmas* 'x' and *pudgalas* 'y' as the variables of position and contraposition respectively, but as evident in the Svātantrika formula, the Mādhyamika retained the classes of variables 'x' and 'y' as distinct in the subject term and yet totally identified these in the predicate in terms of *śūnyatā*. The use of metaphorical examples, such as *māyā*, is obviously meant to corroborate the insight of *śūnyatā*. Second, in the Mādhyamika demonstration, each distinct variable in the subject term is justified to lose distinction by the universal predication of *śūnyatā* with adverbial terms like '*tattvatas*' and '*paramārthatas*.' This modificational term is identical with the *Kathāvatthu's* usage of '*saccikaṭṭhaparamaṭṭhena*' and obviously implicates a contextual change from the empirical to the transcendent, and from the logical to the dialectical context. Third, this adverbial term "from the point of view of ultimate truth" also is designed to implicate a unique sentential construction, such that while the subject refers to empirical objects, the predicate is oriented toward the transempirical. Although this sentential construction was one of the major targets of the Prāsaṅgika criticism, it may have some significant meaning in the way of dealing with the logico-linguistic propensity of human mind. While *śūntyatā* is obviously different from ordinary negation, what is essential to the linkage of moments, spaces, cognitions, and sentences ought to be the *dual natured reference* as "simultaneously existent and non-existent," or "identical and different." It must be an intermediary object of reference brought forth by the dialectical context and exemplified by a magical apparition.