

A Brief Introduction of the Five Sciences in Mahāyāna Buddhist Literature

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“Vidyā Dadāti Vinayaṁ Vinayādyāti Pātratāṁ.
Pātratvāddhamāpnoti Dhanārdharmāṁ Tataḥ Sukhaṁ.” [*Hitopdesha*, 5]¹

The Sanskrit term ‘Vidyā’ as shown in the above-mentioned Sanskrit saying, is rendered into English as ‘Science, Field of Study or Field of Knowledge’ which generally refers to an understanding of or information about a subject that one acquires by dint of experience or study. It also means what is learned, understood or aware of. This Science is divided into two: theoretical and practical, or traditional and modern.

From the Indian traditional point of view, the entire Mahāyāna Buddhist literature is preserved in three corpus— *Kagyur*², *Tengyur*³ and *Sungbum*⁴. Among the three, *Kagyur* contains 1115 literature classifying in nine categories, *Tengyur* contains 3387 classifying in 15 categories while *Sungbum* contains more number. The number of category of the former two may differ from edition to edition. The subject matter or contents of the huge corpus of the literature is subsumed in the five sciences. Their objective is to pave a way to liberation. They are indispensable for the sake of providing correct understanding and view to men so that they may get through or come out from the vicious cycle of *saṃsāra* as well as for eliminating the miseries from their roots. The absence of right knowledge, the affect of wrong view is ignorance. The purpose of the *Vidyā* (science) is to show a path how to get rid of the darkness of ignorance. As per the other Indian traditions, Buddhist traditions also have their respective systems of learning, teaching and practising *sādhāna* as well as a particular presentation of science. Both the Theravāda and Mahāyāna systems give the highest value to the Science. However, the system varies in the Presentation of Science set up by the two main traditions. The presentation of Mahāyāna Science is popular in the name of ‘The Five Sciences (Five Major Sciences)⁵’, though it also has the presentation of five minor sciences⁶.

According to the Mahāyāna tradition, Tathāgata Buddha himself spoke on the categorization of the five sciences and their significances in a particular sūtra. The name of the sūtra is *Mahaupāya-Kauśalya-Pratyupakāraśūtra* (Wyl. *thabs la mkhas pa chen po drin lan gsab pa zhes bya ba'i mdo*; Eng. The Sūtra of Great Skillful Means of Repaying Kindness). At present, this sūtra is available in *Kagyur* (Buddhavacana). It was spoken by the Blessed One (Bhagavan) at Gṛdrakūṭa, Rājgir (Rājgrha) in the presence of the huge gathering of the community of monks consisting the number to 28,000 and 38,000 Bodhisattvas and gods of the Desire Realm led by Kāśyapa, Śāriputra, Ānanda and Rāhula⁷.

¹ **Rendered:** (True) knowledge gives discipline, from discipline comes worthiness, from worthiness one gets wealth, from wealth (one does) good deeds, from that (comes) joy.

² Buddha’s teachings; Translated words of Śākyamuni Buddha. Generally, it consists of 108 volumes which vary in different editions.

³ The collection of commentaries upon the Buddha’s teachings ascribed to Indian Buddhist adepts. It consists 225 volumes which also vary in different editions.

⁴ Collected writings and teachings attributed to the Tibetan scholars and translators.

⁵ Grammar, Medicine/Healing, Painting and Handicraft/Art and Craft, Logic and Philosophy.

⁶ Poetry, Semantics, Lexicography, Dramaturgy and Astrology.

⁷ *Pañca Mahāvidyā*, p. v (Prologue)

The issue of this sūtra got raised due to Ānanda for begging alms. Once, Ānanda was way out to Rājgir for the sake of begging alms. At the time, a Brahmin couple offered him huge quantity of delicious food. In that context, the Blessed One taught Ānanda the best way of repaying the kindness of generosity. The description of the aforesaid way is the main subject matter of that sūtra. For this reason, the name of the sūtra is called *Mahaupāya-Kauśalya-Pratyupakāraśūtra*. The Blessed One says in the sūtra: “If the Bodhisattvas do not study the five sciences, they will never gain the knowledge of the Unsurpassable Enlightened One. Therefore, for the sake of gaining the unsurpassable enlightenment, they should study the five sciences.”⁸

On the basis of this sūtra, the Mahāyāna School developed the tradition of the five sciences. Apart from Buddha, Maitreya-nāth also elucidates the significance of these five sciences in his work *Mahāyāna-Sūtrālaṅkāra*⁹, Asaṅga in the commentary of *Mahāyāna-Sūtrālaṅkāra* and Nāgārjuna in his works *Prajñādaṇḍa* and *Prajñāśataka*. Buddha also taught in *Jātaka* (Life Stories of Śākyamuni Buddha):

“Hearing is the lamp of eliminating the darkness of ignorance,
That cannot be taken away by thief etc. and is the superior among all
gems.”

Similarly, Tsongkhapa also highlights the significance of the five sciences in *Tri-Pradhāna-Mārga* (The Three Principal Paths) saying—

If ones lack the knowledge of realizing the fundamental nature,
Even though one has familiarized himself with renunciation and Bodhi-mind,
The root of cyclic existence cannot be cut.
Therefore, he should strive to realize the interdependent origination. (6)

Sakya Pandita Kūnga Gyaltsan says in *Gateway to Wise* (Wyl. *mkhas 'jug*) about the characteristics of a wise: “One who is pure because of observing disciplines, is wise in the Tripiṭaka, i.e., five sciences and is beneficial to others is called a wise indeed.” (....)

Basically, the attainment of omniscience is the highest goal of the Mahāyāna practitioners. Maitreya-nāth says that without being well-versed in the five sciences, there is no way to acquire the highest goal referring to the attainment of omniscience. He states in *Mahāyāna-Sūtrālaṅkāra*:

If he has not applied himself to the five sciences,
Even the supreme saint will never arrive at omniscience.
Therefore, he makes effort in those (sciences),
In order to criticize and care for others as well as for the sake of his own
knowledge. (11:60)

The five sciences have three main necessities— Obliteration or suppressing, retaining and realization. Among the five, the sciences of grammar and logic are meant for obliterating or suppressing others; the sciences of medicine and handcrafts are meant for retaining others; while the science of philosophy is meant for acquiring realization. It is being discussed in detail as under:

⁸ *sde dge; bka'; mdo; 'A' 190*

⁹ If one does not make effort for being well versed in the five sciences
Even the supreme Ārya will not become an Omniscient One. [12:60]

1. Science of Grammar— Buddhas says in the *Mahaupāya-Kauśalya-Pratyupakāraśūtra*, “Why should a Bodhisattva study a scripture relating to the science of grammar? A Bodhisattva should study a scripture associated with the science of grammar in order to be able to ornament the words of a sound in a correct way, to make sense of every word and expression, to understand and realize the meaning of words. Further, since one does not decline from correct words, he becomes able to reverse from ignorance and wrong view that arise due to I-pride, and also to be well-familiarized in taming beings.¹⁰ It is also explained in the commentary of *Mahāyāna-Sūtrālaṅkāra*, “The Bodhisattvas should be interested in the science of grammar. It is because when one becomes well-versed in Sanskrit language, other learned persons will have faith and respect in him. He becomes able to outshine the non-Buddhists who are conceited with their knowledge of grammar, and to acquire the knowledge of words that bear many synonyms and etymologies”.¹¹

Similarly, the science of grammar makes one able to obliterate the confusion in the expressive terms. It has particular importance. Moreover, in the temporal state, one becomes learned in languages like Sanskrit and so on causing him to be skilled in the contextual etymology of all phenomena. As a result he becomes capable to overcome the conceited denigrating persons. Eventually, he accomplishes the qualities of the four specific perfect understandings¹² which become the cause of inexhaustible melodious voice of the Tathāgata Buddha. Although gradually one gains the state, but for the sake of the various trainees, he, by means of the science of grammar, gets engaged in the means of doing welfare through giving teachings in accordance with the dialects of different beings.

In the absence of this science, understanding of the Buddha’s teachings is just impossible. It is the fundamental science that makes only able to reach the depth of the Tripiṭaka (Three Baskets of Teaching) and the scriptures. Although this science has several parts such as philology, poetry, lexicography, dramaturgy and so on, yet grammar is its backbone. Like all other doctrinal and philosophical traditions, Buddhist tradition also possesses huge treasury of treatises, scriptures and literature. All these are the expanded forms of words and languages. From this point of view, according to Mahāyāna, it can be assumed that it is the only science that subsumes the five minor sciences too. These five minor sciences have particular worldly and practical importance. Poetry and dramaturgy which are the literature and ornamental texts are also incorporated in this science. The two divisions of the science of astrology, namely mathematics and astronomy are very important for practical use. Lexicography has two main necessities: 1. To present synonyms of names or words and 2. To make synonymous terms accessible for making metrics and to set ornament for meters. Thus, the science of grammar that subsumes the five minor sciences has a very important place in the presentation of Mahāyāna science.

2. Science of Logic— Like the science of grammar, the science of logic, also known as the science of reasoning, was founded for the sake of obliterating the misconceptions of others. It properly differentiates what is worthy and authentic and what is not. Further it is the science that helps to challenge and outshine the bad logicians as well as to annihilate the ones who are boasted of studying the science of logic with the pride and conceit. It also causes the non-devotee to be a devotee, and well-develop the faculty of faith of those who are faithful, which eventually become the cause of the attainment of Buddhahood. Even after becoming a genuine teacher through attaining the Buddhahood, by means of the great light

¹⁰ *sde dge, bka’ AH*, 189

¹¹ *bstan* (Tengyur): *sems tsam* (Cittamātra): ‘mi’: 203; In. *Dharmasaṃgraha*, p. 11

¹² Specific perfect understanding of Dharma, specific perfect understanding of meaning, specific perfect understanding of definite words and specific perfect understanding of confidence.

of dharma, he annihilates the entire net of non-understanding, misunderstanding and doubt of the sentient beings without asking others. Buddha says in the *Mahaupāya-Kauśalya-Pratyupakāraśūtra*— “The Bodhisattvas who seek the dharma of the Buddha with effort should study the text of logic so that the beings may cultivate faith in them. Similarly the Bodhisattvas should study the science of logic in order to understand the faults of immoral acts, to annihilate the science explaining the wrong view, to understand the means to train the sentient beings and to differentiate the meaning spoken by the Tathāgata and worldly people.”¹³

We all know that the subject matter of the entire teachings of the Buddha is based on two systems, known as the interpretative and definite. In another way, it can be said that they are based on manifest and hidden phenomena. General people depend upon the logical method to understand the subject matter dealing with hidden phenomena. It is because such issue is totally the object of inferential cognition and is beyond the object of their direct perception. For this reason, the ordinary knowledge-seekers depend upon the logical system, especially the inferential system in order to gain the precise understanding of the system of the four noble truths, two selflessness, emptiness and so forth in a correct way. Therefore, it is explained that the Buddhist Logic deals with the problem of epistemology and valid reasoning. It lays down the rules and systems what are essential to gain faultless and accurate understanding of the object of knowledge. In fact, it is utilized to resolve complex philosophical problems and unveil the hidden meanings of the teachings delivered by the Buddha. It is also called the magical key to open the lock of treasury of Buddha’s teachings. Buddha says in *Mahaupāya-Kauśalya-Pratyupakāraśūtra*: “The Bodhisattvas look for the dharma of Buddha through enthusiastic effort so that all beings may study the treatises related to the science of logic in order to generate the thought of faith. Besides, for being familiarized with the afflictive faults, for refuting the tenets of wrong view of the non-Buddhists, for being acquainted with the skillful means for taming beings, for discriminating between the meaning spoken by the Tathāgata and word-meaning of worldly people, the bodhisattvas should study the treatise on logic.”¹⁴

The Blessed One himself says to His disciples that His Dharma may not be accepted because they have faith in him or on account of the attraction of His personality. He insists and advises that as gold is burnt, cut and rubbed in order to examine its purity, in the same way His words may also be examined properly. After examination if it is proved correct and logical, only then it may be accepted, otherwise not.¹⁵ Thus, the science of logic got developed for establishing the authenticity of the Buddhist tenets. In fact, logic and epistemology are required by all philosophical schools in order to confirm and authenticate their respective tenets. In this regard, Buddhist philosophy also had to develop an independent system of epistemology as well as the science of logic. It is to be remembered that during the development sequence of Buddhism, it had to confront several serious challenges based on tenets thrown by the non-Buddhist philosophical schools, particularly by the Vedic traditions. So, it was felt to meet the challenges in a logical way as well as to establish their own tenet as being better. In the olden days, since there was a contest with respect to the various branches of science among the Vedic, Jaina and Buddhist philosophical schools, this science developed in an unprecedented manner. This is the reason

¹³ *sde dge; bka’; mdo; ‘A’ 189*

¹⁴ Ibid

¹⁵ “O monks and wise men,

Do not accept my words just because you respect me,

But analyze them by yourself as the goldsmith analyze gold through burning, cutting and rubbing

And then accept them.” *Śrī-Mahābala-Tantra-Rājo-Nāma*, [*Tantra; 216; Ga; 216B*]

that this science reached to its peak of development. The great Indian Buddhist Masters of Logic like Ācārya Dignāga and Ācārya Dharmakīrti set the banner of fame of the Buddhist Logic to its unreachable peak of supremacy.

Buddha also says in the *Rāṣṭrapālāparipṛcchāsūtra*, “For not realizing the nature of phenomena, i.e., lacking production, lacking cessation or emptiness, one migrates in the cyclic existence. The Teacher reveals the path to realize emptiness through many means as well as several logical reasonings.”¹⁶

Prof. Stcherbatsky also says: The Buddhist themselves call this science a doctrine of logical reason or a doctrine of the sources of right knowledge or simply an investigation of right knowledge.¹⁷

3. Science of Healing— Buddhas says in the *Mahaupāya-Kauśalya-Pratyupakāraśūtra*, “Why should a Bodhisattva study a scripture of the science of medicine? A Bodhisattva should study a scripture of the science of medicine in order to cure beings from four hundred and four types of diseases¹⁸; as one possesses the loving kindness and compassion towards all sentient beings so that the beings may cultivate the mind of faith; as the beings become free from disease so the thought of joy arises in them; since such thought of joy arises in them, he remembers the Buddha regularly; to cause the beings go to the other shore out of great compassion, a Bodhisattva should study the science of medicine.”¹⁹

For the temporal state, this science makes one well-versed in curing different diseases such as stomach ache etc., suffered by human beings and others. Particularly it also makes one capable for doing welfare through rescuing other from untimely death supposed to promote due to wind, bile and phlegm when these are imbalanced. It also promotes health through curing from combination illness caused by disorder of wind, bile and phlegm together. Thus, by means of being expert in the specification and narration of illness, how to heal illness and restore health etc., this science accomplishes another’s benefit. Finally, it causes to attain the state of Medicine Buddha. And even after attaining the state, he becomes powerful to establish the trainees in the temporal and ultimate state of happiness through distributing the supreme medicine of dharma corresponding to the antidotes of eighty-four thousand types of delusions²⁰. Therefore, by knowing the greatness of this science, it is worthy to be studied.

4. Science of Art and Crafts—The science of art and craft is a type of friend that brings forth different benefits and happiness to the sentient beings. It causes one to earn and hoard wealth according to one’s necessity. Further, it enables one to fulfill his materialistic necessity. As one becomes well-versed in all worldly activities by virtue of this science, so he becomes a receptacle to be respected by the worldly people. At the same time, he becomes able to benefit others through the wealth he earns. Finally, it becomes the cause of attaining the body of the Buddha duly adorned with the major and minor marks. Even after attaining the

¹⁶ *Pañca Mahāvidyā*, 1990, p. 23

¹⁷ *Buddhist Logic*, Vol. I, p. 2

¹⁸ The Tantra of Medicine called ‘Caraka-Tantra’ elaborates four hundred and four types of diseases: One hundred and one types of disease caused by disbalanced air, one hundred and one types of bilious disease, one hundred and one types of disease caused by phlegm and one hundred and one types of disease caused by the unequal proportion of the three when they assemble together.

¹⁹ *sde dge, bka’ AḤ*, 189

²⁰ Popularly known as the eighty-four thousand types of obstacles— Twenty-one thousand categories of male planets (evil spirits) arising on account of hatred, twenty-one thousand categories of *nāga* planets (evil spirits) arising on account of close-mindedness, twenty-one thousand categories of female planets (evil spirits) arising on account of attachment and twenty-one thousand categories of planets (evil spirits) and ghosts arising from all the three delusions in equal proportion.

Buddhahood, he emanates himself in different ordinary forms in order to do welfare of sentient beings. Buddha also says in *Mahaupāya-Kauśalya-Pratyupakāśakasūtra*— If it is asked why a Bodhisattva should study the science of art and crafts, it may be answered that a Bodhisattva should study the science of art and crafts in order to feel easy to earn material for doing welfare to the worldly beings; to inspire the beings to cultivate faith; to cause to destroy I-pride when all things are understood what is to be done; to be able to tame sentient beings; and to remove all obscurations.”

Buddha also said in the *Tathāgatabimbaparibarta*: “One should represent the Tathāgata using such materials as clay, plaster, wood, stone, ivory, copper, gold, silver, lapis-lazuli, crystal, red pearls, emeralds, sapphires, conches, quartz or odoriferous substances; or one should paint the Tathāgata on cotton cloth, boards, or on walls. Representation of the Tathāgata that have been destroyed should be restored, or one should newly create original representations. Having made an image of the Tathagata one will not be born in the low families, in a milieu of evil doers or in families holding wrong views, and one will not suffer from any disability, either.....”²¹

5. Science of Philosophy— The Science of Philosophy is above all sciences. It paves the way to the attainment of higher rebirth (*abhyudaya*) and definite goodness (*niḥśreyas*). It confirms the unsurpassable wisdom which is profound and extensive. It has equal importance for both *Pāramitānaya* and *Mantranaya*. The basic necessity of this science is to attain the state of omniscience. One who is effortful for eliminating the suffering of all sentient beings, who is skillful in all paths and knowledge and who possesses similar entity with respect to the nature of both *saṃsāra* and *nirvāṇa*, is called an Omniscient One. It is an aide to both the self-purpose and the purpose of others. It is exceptionally important for the sake of purifying both the delusive obscuration and obscuration of knowledge. The study and training of this science inspires to be engaged without being lazy for accomplishing the purpose of others. The knowledge of aspect, path and conduct with regard to Mahāyāna which is the means to attain the state of Buddhahood is acquired from this science.

This science begins with the thought and words of Gautama Buddha and is preserved in the early Buddhist texts. Buddhist thought is trans-regional and trans-cultural. It originated in India and later spread to East Asia, Tibet, Central Asia, and South-east Asia, developing new and syncretic traditions in these different regions. The various Buddhist schools of thought are the dominant philosophical tradition in Tibet and South-east Asian countries like Sri Lanka and Burma. Because ignorance to the true nature of phenomena is considered one of the roots of suffering (*dukkha*), Buddhist philosophy is concerned with epistemology, metaphysics, ethics and psychology. The extinction of suffering also encompasses meditative practices. The key innovative concepts of this science include the four noble truths, eightfold noble path, selflessness (*Anātta*) a critique of a fixed personal identity, the transience of all things (*Anitya*), and a certain skepticism about metaphysical questions.

The presentation of the two truths which are the foundation, practice of the five paths, realization of the selflessness and emptiness and the attainment of ultimate stage, all these things are subject matter of the science of philosophy. Among all, wisdom is the key that plays the vital role for eradicating the root of *saṃsāra* referring to view of transitory collection (*satkāyadṛṣṭi*). So the science of philosophy emphasizes on the method of cultivating wisdom of realizing selflessness, the antidote to the root of *saṃsāra*. Śāntideva says in *Bodhicaryāvatāra*:

²¹ *Sūtrasamuccaya*, p. 402

The Sage has spoken about all these branches
For the sake of discriminating awareness (wisdom).
Therefore, generate discriminating awareness
With the wish to pacify sufferings. (9:1)

Undoubtedly in the absence of the five major sciences, neither the Mahāyāna tradition can be imagined nor will it have any meaning. There will remain no object of knowledge unknown for him if he studies the five sciences properly. Despite it has become a challenge for the five sciences whether it can fall into the step of the modern science that has totally changed the lifestyle of human today through its stunning and incredible materialistic development. However, on the basis of the past history and present status, the Buddhist sciences can play a vital, but leading role to give happiness and peace in mind which may also prevail peace in the whole world. As said above, if one can acquire the final goal in dependence upon the five sciences, what to say about other objects of knowledge! Therefore, the study and contemplation of the five sciences is very important for all.

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