



EXPLORATION OF DIFFERENT VIEWPOINTS OF *MEDHA*

Dr. Niranjan S., Dr. Swapna Swayamprava, Dr. Subrat Kumar Ojha, Dr. Debasis Biswal, Dr. Ayushlal P. M.,
Dr. Ankur Saxena, Dr. Dharmendra K. Mishra and Dr. Vikas Baboo

India.

*Corresponding Author: Dr. Niranjan S.

India.

Article Received on 08/05/2023

Article Revised on 28/05/2023

Article Accepted on 18/06/2023

ABSTRACT

It is always interesting to probe into the mystery of mind. Every domains of mind in Ayurveda like *buddhi* (power of acquisition), *pragya* (wisdom), *medha* (intelligence) etc. are well explained in our treatises but are placed in a scattered manner. In the present context the exploration of different viewpoints of *medha* are explained. Different understandings of *medha* like *yougika artha*, *samanya artha* and *vishsha artha* are discussed. Under the subheading of *vishsha artha* several meanings of *medha* as discussed in the classical literatures like *Medha* as *Grahana shakti* (grasping power), *Medha* as *Dharana shakti* (retention power), *Medha* as *Smarana shakti* (power of recollection), *Medha* as *Viveka shakti* (power of discrimination) and *Medha* as *Special Karma shakti* (power of specific intelligence) are discussed. Apart from these *medhya* property as *Medhajanaka* or *Pavitra* (Improving *medha* or Pure/Holy). Related terms of *medha* in contemporary science, that is, memory, intelligence aspects are also dealt herewith. Role of *tridoshas* in proper functioning of *medha* is highlighted. *Medha* is a faculty of *buddhi* (power of acquisition) or is a specific psychic ability which is responsible for encoding and retaining a large amount of knowledge. It is having a broad meaning and can be understood as *Grahana shakti* (*vata dosha*) or *Dharana shakti* (*kapha dosha*) or *Viveka shakti* (*pitta dosha*) or *Smruti shakti* (*tridosha*) or even it maybe a special *karma shakti*. In modern comparison intelligence as a whole in connection with memory can be considered as *medha*.

KEYWORDS: *Medha*, Intelligence, *Grahana*, *Dharana*, *Smarana*, *Viveka*, Memory.

INTRODUCTION

It is always very interesting to probe into the mystery of *Manas* (Mind). It is really strange about the mind that whatever the mind can create, it can destroy the same too. It is also amazing to note that so many different ideas exist about the nature of the mind and how it functions in the body. For all the knowledges we gain, the involvement of mind seems to be very essential. This may be related to sensory or cognitive or conative (motor) or even affective functions as well. As it is easy to observe the physical body we can easily list the main systems of the physical body like respiratory system, cardiovascular system, nervous system etc., whereas we find it difficult to do so for the mind. The mind appears as an amorphous or structureless entity, rather than a precise instrument like the body. Every domains of the mind like that of *Buddhi* (power of acquisition), *Pragya* (intellect), *Mati* (wisdom), *Medha* (intelligence), *Smruti* (memory) etc. are well explained in our treatises but are placed in a scattered manner. Though intelligence, intellect and wisdom may seem like similar traits, they are actually quite different from each other. Intelligence is built by gaining information, knowledge from external

agencies, from schools and universities, teachers and textbooks. The intellect is developed through one's individual effort by exercising the faculty of questioning, thinking and reasoning. Wisdom is the life lessons one picks up though experience and stores in the neurons but doesn't consciously recall. In many occasions we use the terms intellect and intelligence synonymously. All these are the sides of two sides of a similar coin, namely our mental ability to succeed and live in the world. In the present context the concept of *Medha* (intelligence) is being dealt. Mythologically '*medha*' has been related to Goddess Saraswati and a popular hymn *Medhasuktam* is being chanted to Goddess Saraswati as a prayer seeking intelligence and capability to learn.^[1] At times we find the references in our classics regarding the domains of mind that further complicates its understanding. For example: *medha* has been said synonymously as *pragya* in few references^[2] and further, it is said that *pragya* has three components as *dhee* (*buddhi* – power of acquisition), *dhruti* (patience) and *smruti* (memory).^[3] As per this description *buddhi* is the part of *pragya*. Whereas, few references are also available in our classical literatures saying *medha* as special part of

buddhi.^[4] In such situation it becomes difficult to distinguish between these two mental faculties whether *buddhi* is the part of *medha* or *medha* is the part of *buddhi*. To simplify this confusion, we can understand this as *buddhi* is the knowledge we gain from the different senses including mind whereas *medha* is the cognitive ability of an individual to understand and grasp the things. Exploration of *medha* as per the descriptions available from different classical literatures mainly *bruhat trayees* has been done in the present article.

AIMS AND OBJECTIVES

Understanding the different viewpoints of *medha* as described in Ayurvedic texts and contemporary science

MATERIALS AND METHODS

It is a literary review study. Materials related to this topic have been collected from different journals, Ayurvedic and modern textbooks, authentic websites, authentic works, manuscripts, Sanskrit dictionary etc.

OBSERVATION AND RESULTS

Derivation and definition of *Medha*

Generally, the meaning of a word can be understood in three ways viz., by virtue of its derivation (*Yougika artha*), by virtue of its common use (*Samanya artha*) and by virtue of its specialized use (*Vishesha artha*).^[5]

- ***Yougika artha***

The word '*Medha*' is derived from the root "मेध् सङ्गमे" and applying "अञ्" suffix to 'मेध्' *dhatu*. This means to collect or to meet or to come together.^[6]

- ***Samanya artha***

The meaning implied in non-Ayurvedic Sanskrit literature can be taken as *Samanya artha*. As per this, retention power of intellect is considered as *Samanya artha* of *medha*.

- ***Vishesha artha***

The meaning implied in Ayurvedic literature can be taken as *Vishesha artha*. The different references from the Ayurvedic literatures indicate that it has several meaning not only retention power. This can be understood as follows:

Understanding of *Medha* (intelligence) as per classics:

When we dissect the classical textbooks of Ayurveda we get several references regarding *Medha* which depict its concept and its role in understanding the specific mental faculty. Generally, the word *medha* is used to denote high intellect. It is that part of *Buddhi* which retains, understands, and comprehends various informations. Based on the descriptions available in the Ayurvedic literatures *medha* can be understood in four different ways as follows:

1. *Medha* as *Grahana shakti* (Power of grasping)
2. *Medha* as *Dharana shakti* (Power of retention)
3. *Medha* as *Viveka shakti* (Power of discrimination)

4. *Medha* as *Smarana shakti* (Power of recollection)
5. *Medha* as *Special Karma shakti* (Power of specific intelligence)
6. *Medhya* property as *Medhajanaka* (that which enhance *medha*) or *Pavitra* (Improving *medha* or Pure/Holy)

1. *Medha* as *Grahana Shakti* (Power of grasping):

Grasping means the ability to understand and the capacity to comprehend the things which have been learnt, heard or seen. Generally grasping power is considered as the gift offered by the God which permits us to process the data which we receive from input devices of the body such as ears and eyes. Some individuals require very minimal efforts to recollect the things which they have heard or seen or studied. Sometimes for those people mere one attempt is sufficient to recollect the things. Those persons having such grasping property are termed as *Medhavi* (meritorious or brilliant) persons. In the context of *Trividha pareeksha* (three methods of examination) Charaka mentions various factors which can be assessed through inference (*Anumana pareeksha*) under which *Medha* is one which is assessed from the power of comprehension of scriptures.^[7] In other words to say, it is the grasping power of the person to comprehend the things. As per Dalhana, *Medha* is that property of mind which is unhindered or unimpeded extremely finest intelligence and retained what has been heard.^[8] This also implies the nature of *medha* as grasping power.

2. *Medha* as *Dharana Shakti* (Power of retention)

Most of the references available in our classics depict the meaning of *medha* as the power of retention. As per Dalhana, it is the capacity of power of retaining and attracting or drawing near towards the scriptures.^[9] Chakrapani opines that it is the property of *Buddhi* (power of acquisition) with the act of holding or maintaining or retaining the things.^[10] While differentiating the *Smruti* and *Medha* in a context, Hemadri states that *Smruti* is that part of the mind which after grasping the things helps to remember them by making chunks (remembering the things by making parts) whereas without any chunks if the things are retained as they are, that part is called as *Medha*. In other words to say, *Medha* is that factor which helps to remember the things without any special effort to memorize the things whereas we need to do special effort to remember the things in the form of chunks in case of *Smruti*.^[11] The persons with better *Medha* property can be able to understand or keep in memory anything that is read or heard only once or twice. In another context Hemadri states that *medha* as retention of knowledge.^[12]

3. *Medha* as *Viveka shakti*: (Power of discrimination)

Viveka is a Sanskrit term that can be translated as 'right judgement', 'discrimination' or 'the faculty of distinguishing and classifying things according to their real properties.'^[13] It is the ability to differentiate between

the real and unreal, eternal and temporary, Self and non-Self, pleasure and bliss. As per Yogapedia^[14], this ability to discriminate between the real and unreal, eternal and temporary is one of the key elements in a spiritual practice and essential for achieving *moksha* (spiritual liberation). This shows one's skill in discerning the details in one's alignment, by turning one's attention inward and working with the invisible details. In the context of *Buddhi vibhramsha* (impairment in power of acquisition) similar description is stated as, "if something eternal is viewed as ephemeral and that something is useful viewed as harmful or vice-versa is termed as *Buddhi vibhramsha* (impairment in power of acquisition)".^[15] Further it says that the *Buddhi* normally views things as they are.^[15] These descriptions depict only the part of the functions of *Buddhi* which comprises even *medha*, as it is stated that *medha* is the special part of the *Buddhi*.^[16] According to Indu commentator, *medha* is *pragya vastu viveka shakti*,^[17] i.e., the power of discrimination or the right knowledge of any really existing or abiding substance or essence, thing, object or article. This power of discrimination is only possible when we enhance our sense of perception and thereby develop our ability of thinking to discern the appropriate from the inappropriate without the need for incessant doubts.

4. *Medha* as *Smarana shakti* (Power of recollection)

Even though *Smruti* is well explained in our classics and is clearly distinguished from *medha* by all our great sages of Ayurveda, for recollection of the thing which has been grasped one has to have proper *medha*. Not all the persons grasp, remember and recollect equally and this differentiation between them is mainly because of the magnitude of *medha* present in them. Without *smarana shakti* it is impossible to reproduce what has been seen or heard or learnt. Thus, we can say that *medha* also acts like *smruti* in connection with recollecting power.

5. *Medha* as *Vishista Karma shakti* (Power of Specific intelligence):

We are not all naturally skilled at the same things. Some are more athletic and have better coordination. Some pick up on language and words faster at a young age, while others are good with numbers and visualizing patterns. Some are very good at a particular sports event and some are excellent in artistic skills. Such difference of intuitive property specific to an individual is also mentioned in our science as *medha*. As per Chakrapani, *medha* is the responsible factor for specific intelligence as he says that some persons have intuitive proficiency in certain arts like painting, archery, etc while others do not have.^[18] Thus, the specific intelligence is also mentioned in our science under the heading of *medha*.

6. *Medhya* as *Medhajanaka* or *Pavitra* property (Power of improving *medha* or Purity/Holy):

We come across the word *medhya* in lot of *rasayana yogas*, certain drugs and other formulations which

indicate that these formulations have the property of improving *medha shakti* or it can also be *pavitra* (purity) as described by Dalhana.^[19] *Pavitra*, in this context, means the person is free from the things that are considered to be sinful or bad. In other words to say, mind will be healthy and free from any abnormal likings. Thus, the drugs having *medhya* property not only improve *medha shakti* or thinking ability but also improve the proper functioning of mind.

Origin and Decline of *Medha*

In some classical texts of Ayurveda we get the reference regarding the decline of *medha*, however our great sages have not mentioned the origin of *medha* directly. This does not indicate that they were unaware of this. We get the references regarding origin of *buddhi* during the *masanumasika garbha vrudhi* (month wise development of foetus). *Buddhi* is well-formed in the body during 6th month of intrauterine life^[20] and by this we can infer that *medha* is also well-formed in the body during 6th month of intrauterine life as *medha* is a special part of *buddhi* itself. It is derived from *satvika bhava*.^[21] and *bhautika* composition of it is *tejo mahabhuta*.^[22] As per Vagbhata^[23] and Sharangadhara,^[24] *medha* starts to get declined during 4th decade of life which may be due to neurodegeneration.

Contemporary science believes that the intellectual ability develops soon after the birth and slow steady decline starts from fourth decade which is exactly similar to the explanation of Ayurvedic explanation. According to Jean Piaget, there are four major periods in individual intellectual development namely Sensorimotor period (from birth to 2 years), Preoperational period (2 to 7 years), Concrete-operational period (7 to 12 years) and Formal-operational period (12 years to whole life).^[25] In early adult life intelligence appears to be stable, but there is a slow decline which can be detected for the first time at about 35 years of age, after which there is a slow steady decline.^[26]

Related terms of *Medha* in contemporary science

• Memory

The storage and retrieval of what has been learned or experienced is memory. As per the textbooks of psychology, mainly three fundamental processes relating to memory come into play. The first memory process is Encoding^[27] – the transforming of information so that the nervous system can process it. It is the process by which information is initially recorded in a form usable to memory. We use the senses – hearing, sight, touch, taste, smell to encode and establish a memory. Every information received by the senses will reach the brain in the form of codes. After information is encoded, it goes through the second memory process, Storage.^[28] This is the process by which information is maintained over time. How much information is stored depends on how much effort was put into encoding the information and its importance. Information can be stored for a few seconds or for much longer. The third memory process,

Retrieval,^[29] occurs when information is brought to mind from storage.

One determinant of how well memories are recalled is the way in which material is first perceived, processed and understood. Levels of Processing Theory^[30] (LPT) emphasizes the degree to which new material is mentally analysed. LPT suggests that the amount of information processing that occurs when material is initially encountered is central in determining how much of the information is ultimately remembered. According to this approach, the depth of information processing during exposure to material – meaning the degree to which it is analysed and considered is critical; the greater the intensity of its initial processing, the more likely we are to remember it. Many of us do not pay close attention to much of the information to which we are exposed, typically only scant mental processing takes place, and we forget new material almost immediately. However, information to which we pay greater attention is processed more thoroughly. Therefore, it enters memory at a deeper level and is less apt to be forgotten than information processed at shallower levels.

• Intelligence

Intelligence is a cognitive process. It has been defined in many ways.^[31] the capacity for abstraction, logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem solving. More generally, it can be described as the ability to perceive or infer information and to retain it as knowledge to be applied towards

adaptive behaviours within an environment or context. Intelligence enables humans to experience and think. Many related terminologies like that of good sense, judgement, gifted children, intellect, common sense etc. can be incorporated as intelligence. There are many functions performed by human brain, one of the very important function is intellectual function which is performed by prefrontal cortex. Prefrontal cortex is also called as ‘silent area’, ‘association area’, ‘organ of mind’. The basic activity of this brain region is considered to be orchestration of thoughts and actions in accordance with internal goals. This region has been implicated in executive functions, such as planning, decision making, short-term memory, personality expression, moderating social behaviour and controlling certain aspects of speech and language. Executive function relates to abilities to differentiate among conflicting thoughts, determine good and bad, better and best, same and different, future consequences of current activities, prediction of outcomes, expectations based on actions etc.^[32]

Different views of intelligence have been put forth by several psychologists over the years. British psychologist Charles Spearman proposed two-factor theory of intelligence^[33] as ‘g’ (a person’s general intelligence like ability to perform complex mental work such as problem solving) and ‘s’ (a person’s specific intelligence like verbal or math skills).

L.L. Thurstone proposed that intelligence is composed of seven primary mental abilities^[34] as shown in the table 1.

Table 1: Thurstone’s seven primary mental abilities.

Theory	Main ideas
Verbal comprehension	Ability to understand the meaning of words, concepts and ideas
Numerical ability	Ability to use numbers quickly to compute answers to problems
Spatial relations	Ability to visualize and manipulate patterns and forms in space
Perceptual speed	Ability to grasp perceptual details quickly and accurately and to determine similarities and differences between stimuli
Word fluency	Ability to use words quickly and fluently in performing such tasks as rhyming, solving anagrams and doing crossword puzzles
Memory	Ability to recall information such as lists of words, mathematical formulas and definitions
Inductive reasoning	Ability to derive general rules and principles from presented information

Theory of multiple intelligences proposed by another psychologist Howard Gardner who said differentiation of human intelligence into specific modalities of intelligence rather than defining intelligence as a single general ability. He proposed eight types of intelligence namely^[35] as follows:

1. Verbal ability
2. Logical mathematical reasoning skill
3. Spatial ability or the ability to find your way around an environment and to form mental images of it
4. Musical ability or the ability to create and perceive pitch and rhythm pattern

5. Body kinaesthetic ability or skill at fine motor movements required for tasks like gem cutting, surgery, athletics etc.
6. Interpersonal skills involving understanding the feelings of others
7. Intrapersonal skills or knowledge of oneself.
8. Naturalist intelligence or ability to identify and classify patterns in nature

American psychologist Robert J. Sternberg developed a Triarchic theory of intelligence^[36] wherein three categories of intelligence have been comprised namely Practical intelligence (street smarts and common sense), Analytical intelligence (academic problem solving and

computation) and Creative intelligence (imaginative and innovative problem solving).

To summarise, these different types of intelligence are classified depending on the special intuition towards a specific mental ability.

The most recent acceptable theory of intelligence has been put forward by the American psychologist Robert Sternberg by adopting an information processing approach to cognition or problem solving. The information processing approach is the manner in which one proceeds to perform a mental task or solve a problem from the time one comes across it, gathers information and makes use of this information for completing the task or solving the problem in hand.^[37] The theory propagated by Sternberg identified the following steps in the way one processes information:

- Encoding (identifying the relevant available information in the mind)
- Inferring (drawing the necessary inference)
- Mapping (establishing the relation between a previous situation and the present one)
- Application (applying the inferred relationship)
- Justification (justifying the analysed solution of the problem)
- Responding (providing the best possible solution)

Role of Tridoshas in proper functioning of medha

• Role of Vata

Vata is responsible for all the activities of the body. The derivation of the word vata “वा गति गन्धनयोः” indicates that vata dosha governs the action of motor and sensory perception.^[38] Vata directs the sense organs towards the object and takes the object towards the sense organs. Among the five types of vata – prana vata, udana vata and vyana vata are involved in the function of medha. Prana vata sustains the function of intellect, sensory organs, heart and mind.^[39] Udana vata controls the process of speech, effort / enthusiasm / initiating the action of grasping etc.^[40] Apart from these dheer, dhruti, smruti and mano bodhana are also the functions of Udana vata itself,^[41] whereas vyana vata is the controller of all sorts of actions taking place in the body.^[42] When we consider the different domains of medha as explained above, vata dosha overall, can be considered as the prime factor for grahana shakti (power of grasping). The persons can understand the things and situation faster due to the involvement of vata dosha.

• Role of Pitta

Medha and dheer are mentioned as the function of pitta, very specifically sadhaka pitta is mentioned as the dosha concerned with medha as per our classics.^[43] Emotional aspects like Bhaya, shourya etc. are also the functions of sadhaka pitta.^[44] Accomplishing or fulfilling the four objects of human pursuits (purusharthas) like dharma (righteous duties), artha (wealth), kama (fulfilment of desires) and moksha (salvation) are also done by this

pitta itself. It clears kapha and tamo guna (depressing mind quality) and thus activates brain. The activated brain enables one to achieve his dreams, goals and aspiration.^[45] The achievement of one's own aspiration especially that of perception and memory are dependent upon sadhaka pitta.^[46] So it is the prime dosha involved in perception and also for logical thinking. Vivechana shakti (power of discrimination) is attributable with pitta dosha, specifically Buddhi vaisheshika alochaka pitta as it helps in imagination. Apart from this, many of the mental functions are also attributed to this variety of pitta. According to Bhela, this pitta is located beyond the eyes in the brain specifically in the region of Shringataka (in between eyebrows). It is also responsible for all sorts of thought perception, retention and memorizing the things. It provides the power of introspection (pratyahara) to the seers and saints involved in meditation and yogic activities. It enables concentration, response and conjunction.^[47] Difference of intuitive property specific to an individual is also related to this pitta itself. Thus, we can say that for Vivechana shakti and vishishtha karma shakti domains of medha are related to pitta dosha.

• Role of Kapha

For retention of any knowledge kapha dosha is very essential. If kapha is normal then the knowledge can be retained. Thus we can say that dharana shakti (power of retention) of medha can be due to kapha dosha as retaining or retention is the natural quality of kapha. Among the five types of kapha, tarpaka kapha has the major role. It nourishes the sense organs residing in shiras^[48] which can be interpreted as all sensory organs located in shiras along with the inclusion of manas. Thus for proper functioning of these sense faculties including manas, tarpaka kapha helps in the nourishment.

DISCUSSION

Medha is a faculty of buddhi or is a specific psychic ability which is responsible for encoding and retaining a large amount of knowledge. All the tridoshas are responsible for proper functioning of medha. It is having broad meaning and can be understood as Grahana shakti (vata dosha) or Dharana shakti (kapha dosha) or Viveka shakti (pitta dosha) or Smruti shakti (tridosha) or even it maybe a special karma shakti (pitta dosha) as discussed above. Based on this principle itself various formulations having medhya property will be acting on the body. Those formulations which improve vata dosha will be improving the grahana shakti in an individual, which have property of maintaining kapha dosha will be beneficial in dharana shakti and those which act on normalizing pitta dosha improves the viveka shakti of an individual. All the medhya formulations are also helpful in improving memory and perception. Whereas vishishtha karma shakti medha is specific to individual based on his intuitive proficiency. All these aspects of medha imply the different aspects of intelligence which is mentioned in contemporary science. Analytical intelligence can be attributed to grahana shakti of medha, practical

intelligence and creative intelligence can be attributed to *dharana* and *viveka shakti* of *medha*. All the functions like *grahana*, *dharana*, *smarana*, *vivechana* are being attributed to prefrontal cortex of brain. Various types of intelligence like musical intelligence, linguistic intelligence, logical and mathematical intelligence etc. can be considered as the special *karma shakti* of *medha*.

CONCLUSION

As per the classical literatures mind has several domains. We get a lot of references regarding each and every domains of the mind but are mentioned in a scattered way. *Medha* is one such aspect which is described as the higher mental function and it has a broad spectrum understanding from Ayurvedic point of view. It can be understood as power of grasping, power of retention, power of discrimination, power of recollection and power of specific intelligence of an individual. We get wide explanation regarding intelligence in psychological textbooks which has the similar explanation of *medha*. To conclude, in a nutshell *medha* can be considered as intelligence as a whole in connection with memory.

Acknowledgement

Nil.

Conflict of Interest

Nil.

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