

A Comprehensive Review of Quwā Nafsāniyya (Nervous Faculties) and Af'āl-ul-A'dā' (Functions of Organs): Parameter of Mizāj Assessment

Farzana Khatoon¹, Ashfaque Ahmad², F.S.Sherani³, Badrudduja Khan⁴

¹PG Scholar, Deptt of Kulliyat, AKTC, A.M.U Aligarh

²PG Scholar, Deptt of Moalejat, AKTC, A.M.U Aligarh

³Professor Deptt of Kulliyat, AKTC, AMU, Aligarh.

⁴Associate Professor, Deptt of Moalejat, AKTC, A.M.U Aligarh

Abstract

Background: The appearance & emergence of any changes, transformation or any movement in human body known as functions. Powers are the causative factors of the all functions. Af'āl-ul-A'dā' is an important parameter for the determination of temperament described by almost all eminent Unani physicians

Purpose: To clear the classical & Unani concept and relation of Mizaj with Quwā Nafsāniyya (Nervous Faculties) and Af'āl-ul-A'dā' (Functions of Organs)

To strengthen a relationship between temperament, Functions & external-internal perceptive powers.

To establish Af'āl-ul- Nafsāniyya as a definite parameter for assessing temperament.

Conclusion: Af'āl-ul-A'dā' is an important parameter for the determination of temperament and Powers (Quwā) are the causative factors of the all functions. Perceptive power of bilious temperament strongest in comparison of all temperament.

Index Term: Quwā Nafsāniyya (Nervous Faculties), Af'āl-ul-A'dā' (Functions of Organs), Mizāj (Temperament), Hararat (Heat)

Af'āl-ul-A'dā' (Functions of organs) is the reason of some object or process which occurred in a system that evolved through natural selection. In the philosophy of biology, functions indicate, some kind of teleological purpose, even though natural selection operates without any goal for the future. In present-day, there are three major division of function in the biological world: theories of causal role, selected effect, and goal contribution.

Af'āl (Functions) defined as, “The bodily activity essential for fulfilling the objectives of the body. It is performed by the organs and also testimony to the presence of powers in them.” [1]

It is also defined as “The appearance & emergence of any changes, transformation or any movement in human body known as functions.”

In Medical Dictionary functions defined as,

“The special, normal, or proper action of any part or organ.”

Powers are the causative factors of the all functions. Functions can still, be suspended voluntarily for long time being, as in case of closing the eyes by volition, the visual functions can be suspended but the person whose sight is lost cannot see even with open eyes.^[2] Normal functions means all those actions which take place as demanded by the physiology whether these are physical or psychic actions. Perfection of somatic functions is an evidence of balanced temperament and their being defective or wrong that of altered temperament.

Af'āl-ul-A'ḍā is an important parameter for the determination of temperament described by almost all eminent Unani physicians like: *Jalinoos, Rabban Tabri, Razi, Ali Ibne Abbas Majoosi, Ibn-e-Sina and Ibn-e-Rushd.*

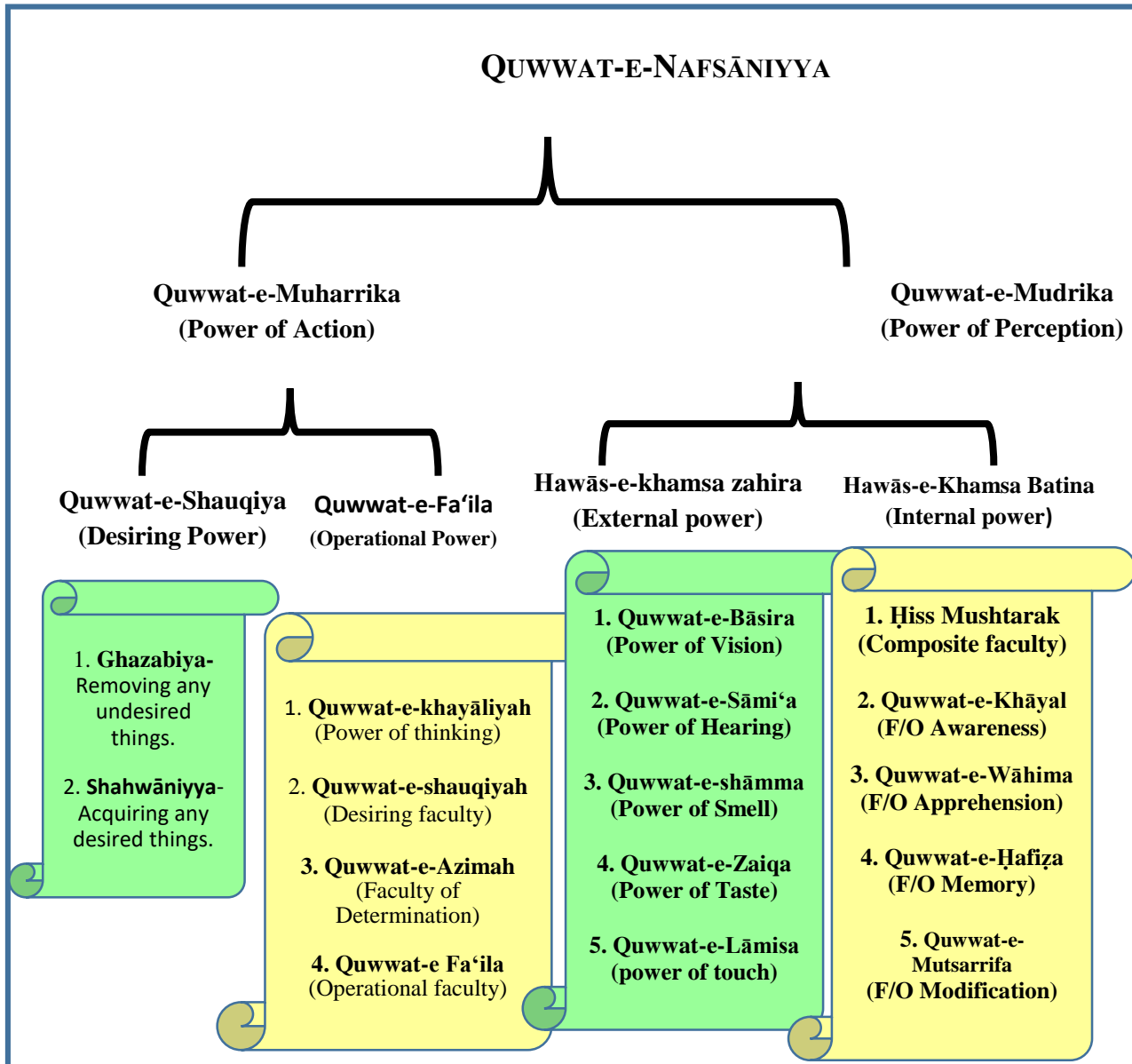
Ibn-e-Majoosi says (934-994A.D.) in his writing, *Kamil-us-Sannat (Liber regions)* that,

“One can take help of Af'āl-e-Badan in the assessment of Mizāj, some parameters are adopted from Af'āl-e-Nafsāniyya (Psychic functions) and some from Af'āl-e-Hawāniyya (Vital functions) while some from Af'āl-e-Tabī 'iyya” (Natural functions).^[3-4]

This statement of *Majoosi* indicate that apart from other parameters, Af'āl-e-Nafsāniyya are reliable and good determinants of temperament. There is an essential dependence of the Af'āl upon Quwā (Faculties). In this regards *Ibn-e-Sina* says: “The function and faculties correspond to each other. Each faculty which gives rise to a specific function is an expression of its corresponding faculty. It is therefore, proposed to deal with them as a whole.^[5]



Figure-02
Psychic faculty and its Types



QUWĀ NAFSĀNIYYA (NERVOUS FACULTIES)

The term Nafsāniyya means pertaining to the Nafs or anima, since this faculty is chiefly concerned with voluntary movements and sensations, it has been translated as the nervous faculty and not the animal faculty as in Latin versions.

The Quwā (Faculties) is a natural and specialized ability of the body for the performance of its specific functions. Each and every organ is furnished with power through specific physiological function are performed by that particular organ. These powers are specific for a particular tissue or organ on which specific functions of the organ are depend. Such as, brain can only perform the function pertaining to Quwwat-e-Nafsāniyya. It cannot perform the functions of heart, liver and other organs. Similarly liver perform the functions of Quwwat-e-Tabā'iyya. It cannot perform the function of the brain and heart. So the faculties and their functions correspond to each other's. Each faculty gives rise to a specific function and each function is an expression of its corresponding faculty. It is, therefore, proposed to deal with them together the organ faculties and function are inter-related interdependent. The organs are the seat of the powers and powers gives rise to functions.

Therefore, the Quwā defined as:

“The Quwā are those natural and specialized powers which are furnished to a living body for the performance of its specific functions by the organs of the body for the preservation of individual as well as species.” [6]

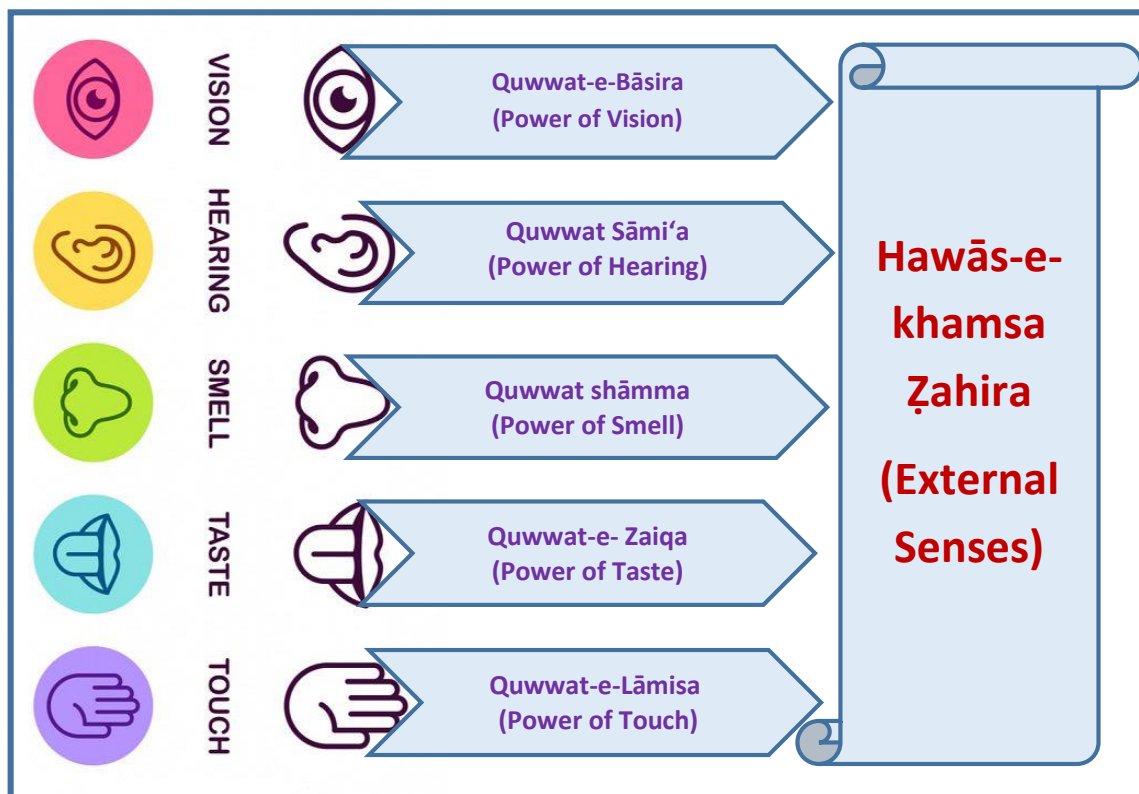
Quwwat-e-Nafsāniyya are those faculties which gives the sense and perceptions to the organs & perform, all the functions of the nervous system like; Fi'l-i-Ḥiss (Sensory Functions), Fi'l-i-Ḥarakat (Motor functions) & Fi'l-i-Tadbeer (Intellectual Functions).

The *Hippocrates*, first described the brain as the most important organ in the human body and declared that it is the brain alone from where our pleasures, joys, and jest, as well as our sorrows, pains, and tears come from. This concept can be further traced in the writings of *Asclepiades* (5th century A.D.), *Soranus of Ephesus* (98–138 A.D.), *Aretaeus* (150–200 A.D.), *Galen* (131-210 A.D.), *Razi* (850–925 A.D.), *Majoosi* (930–994 A.D.), *Abu Sahal Masihi* (d-1010 A.D.), *Ibn-e-Sina* (980–1037 A.D.), and other physicians.

Ali Ibn Abbas Majoosi described the Quwwat-e-Nafsāniyya in following words: “Some of these Quwā -e-Nafsāniyya are commonly present in man and animals, these are the faculties which perform Ḥiss (Sensation) and Ḥarakat-e-Iradi (Voluntary Movement). It is because the Ḥiss (sense) are of five type; Ḥiss-e-Basr (Visual Sensation) which is related to seeing, the Ḥiss-e-Sam'āt (Auditory Sensation) is related to hearing, Ḥiss-e-Sham (Olfactory sensation) is related to smelling, Ḥiss-e-Zoaq (Taste sensation) means tasting and Ḥiss-e-Lams (Tactile sensation) means touching and all these are known as Hawās-e-Khamsa (Five Senses) as shown in Fig-03.

Figure-03

Types of Hawās-e-Khamsa Zahira (External Five Senses)



Ḥarakat-e-Iradi means the voluntary movements of A‘dā (organs). This is the movement by which the animal moves its organs in the direction of his will; this physical functions are present in all animals. Some of Quwwat-e-Nafsāniyya are specifically present in Haiwan-e-Natiq (Human Beings). These are those related to Tadbeer (Cognition) and these are the Quwwat-e-Takhayyaul (Faculty of Imagination), Fikr (Thinking) and Zikr (Preservation); and no Haiwan-e-Ghayr-Natiq (Animal) is there who has these three Quwā in such a perfect form. Each of these functions actually a movement produced by the Quwwat-e-Fā‘ila (Operational Power) of it; means that Fikr etc., is also a type of movement produced by Quwwat-e-Mufakkirah (Power of Justification).” [7]

Thus, according to the *Majoosi* the nervous faculty is of two types that causes sensation and movement and there are five senses. Sensation and movements are present in all living beings equally while the Quwwat-e-Mudrika (Cognitive Faculty) is present in human beings only. Quwwat-e-Mudrika related to Tadbeer (Takhayyul, Fikr & Zikr). He considers the cogitative functions as the special movements, produced by their respective active drives.

He further says, “The residing place for these cognitive faculties is the brain. Types of these faculties are three; among are the faculties through which the brain itself does the function it ought to do these are the Quwā by which Tadbeer is done and all the faculties of such type are called Zehan (Mind). Among these nervous faculties the brain does many task through nerves. These are the faculties that produce Ḥiss and Ḥarakat-e-Iradi; and faculties that carried out Tadbeer, when divided into types, yield three types. The foremost faculty brings out Takhayyul (Imagination) and the next causes Fikr-e-Mantiqi (Logical thinking) and the other produces Zikr (Recall) means, remembering things. Human beings is distinguished from animals

due to these faculties specially Quwwat-e-Fikr, because Fikr is like a pillar for Takhayyul and Zikr, Tadbeer and Tameez are done due to the Fikr only which the separation of something from others is done by the function of Fikr.” [7]

There are specific centre of these faculties are found in the brain where their corresponding pneuma resides for performing their specific functions. In this regard *Majoosi* says: “For these faculties there is a specific seat or centre in brain. The specific centre for Takhayyal is the Muqaddam Batan (Anterior Chamber), the centre for Fikr is the Batan Ausat (Middle Chamber) of brain. These chambers hold the Ruh-e-Nafsāniyya (Psychic Pneuma) that performs the functions of these faculties”. [7]

Quwwat-e-Mudrika / Quwā -e-Idraak (Perceptive Faculties):

Quwwat-e-Mudrika one of the psychic and mental faculty which perform sensory activities in the body. [51] It receives all kinds of sensory stimuli from different sensory receptors (Mudrikat) and send to the brain in their respective internal centres.

There are of following types of Quwwat-e-Mudrika:

1. **Quwā-e-Mudrika Zahira (External Perceptive Faculties):** The faculties which help to decipher the outer sensations of the body.
2. **Quwā-e-Mudrika Batina (Internal Perceptive Faculties):** The internal perceptive powers, whose centre are situated inside the brain. These centres receive and collect the sensations forwarded by external senses.

1. Quwā-e-Mudrika Zahirah (External Perceptive Faculties): About Quwā-e-Mudrika Zahira, *Allama Nafis* says in his Book “*Shara Mojiz Alqanoon*”,

“*Functions of external faculties is superior to functions of internal faculties*” [8]

Numbers of Quwā-e-Mudrika Zahira- These sensory faculties are composed of five faculties. But due to diverse number of Quwwat-e-Lāmisa (Tactile Power) some physician’s belief that the external sensory faculties are eight in numbers: [8]

1. Quwwat-e-Bāsira (Power of Vision)
2. Quwwat-e-Sami‘ā (Power of Hearing)
3. Quwwat-e-Shāmma (Power of Smell)
4. Quwwat-e-Zaiqa (Power of Taste)
5. Quwwat-e-Lāmisa (Power of Touch). [8]

Quwwat-e-Lāmisa further divided into following types:

- i. Differentiating Power of Coldness and Hotness
- ii. Differentiating Power of Moistness and Dryness

iii. Differentiating Power of Hardness and Softness

iv. Differentiating Power of Softness and Roughness

Ibne Abbas Majoosi was aware of the nature of all kinds of sensory stimuli which occurs during sight, hearing, smell, taste & touch. He, mentioned that visual stimulus is the lightest of all stimuli (an electromagnetic wave-an energy), hence he gave its example, with the fire. He says that there are three kinds of fire (1). The flame (2). The redness (3). The rays of the light. He assumed nature of visual stimulus, like a rays of light. ^[9]

He compared the nature of hearing sensation with the air and says that sound waves travel through the air. He also says that, the stimulus of hearing is heavier than vision. ^[9]

Regarding *Quwwat-e-Bāsira*, *Allama Nafees* says in *Kulliyat Nafisi* that, “The place of this *Quwā*, where both *A‘şāb* (Nerves) of eye’s meet together known as *Taqatae Salebi* (Optic Chiasma). Due to round tubular shape of both *A‘şāb*, it is known as in the name of *Asab‘ā Majufa*. One *A‘şāb* emerges from right side of anterior brain and bends towards left side, Second *A‘şāb* emerges from left side and bends towards right side, bending of both nerves in such a manner, that they meet together at *Taqatae Salebi*. A hole is formed by the meeting surfaces of both the nerves which ultimately becomes a single connecting tube. The nerves which arises from right side of anterior brain goes to the right eye and other, which arises from left side of anterior brain goes to the left eye. ^[10]

“Functions of *Quwwat-e-Bāsira* are to the perception of light and appearance of any objects.”

He further says about *Quwwat-e-Sami‘ā* that, “place of this *Quwā* are those *A‘şāb* which, distributed inside the meatus of ear which extended up to *Joba* (tympanic membrane) filled with air. The quality of *Quwwat-e-Sami‘ā* is found in these fibres which are distributed on *Joba*. ^[10]¹⁰

“Perception of sound are the functions of *Quwwat-e-Sami‘ā*.” ^[10]

2. *Quwā-e-Mudrika Batinah* (Internal Perceptive Faculties):

Abu Sehal Masihi (Great teacher of *Ibn-e-Sina*), gave the other term of *Quwwat-e-Mudabbira* (*Quwā-e-Mudrika Batinah*), is *Quwwat-e-Siyasiy‘ā*. ^[8]

In Unani literature there are many views of different physicians about numbers of *Quwā-e-Mudrika Batina*. ^[8]

We can divide them into two major groups:

- First group, of *Abu Sahl Masihi* & *Ibne Abbas Majoosi*, had opinion that, there are three types of *Quwwat-e-Mudrika Batinah* (i). *Takhayyul* (Imagination), (ii). *Taffakur* (Thinking), (iii). *Ta‘ḍā kurr* (Recalling).

Ibne Abbas Majoosi present a different view, about the *Af‘āl-e-Mudrika Batina*, he says:

“Each of these faculties does its specific functions. The faculty which produces *Takhayyul* is that which used to imagine things and make virtual images and passes it over to *Fikr*. So *Takhayyul* means to perceive a thing

which is absent in such a way that is felt to be present. The faculty which produces Fikr is that which analyses and interprets things which are perceived by imagination and intuition. Fikr is related to knowledge, arts and profession etc. When Fikr deals with crafts and skills which requires voluntary movements of the body, before the movements of hands and feet the qasad (desire) precedes. After the arousal of desire the hand and feet are moved. If the voluntary movement is not required and recall is desired then the faculty which is related to Zikr works. It recalls the things which are already perceived by Takhayyaul and Fikr have acted upon by them". [11]

➤ Second group of *Ibn-e-Sina* and his followers, they divides *Quwwat-e-Mudrika Batina* into five types, He says that there are five numbers of interior faculties,

1. Ḥiss Mushtarak (Composite/ Common sense)-
2. Quwwat-e-Khayāl (Faculty of Awareness)
3. Quwwat-e-Wāhima (Faculty of Apprehension or Instinct)
4. Quwwat-e-Ḥafīza or Quwwat Zakira (Faculty of Memory)
5. Quwwat-e-Mutaṣarrifa (Faculty of Modification)

1. Ḥiss Mushtarak (Composite/ Common sense): Perception power which receives all sensations, compose them into precepts and enables proper sensory appreciations or Ḥiss Mushtarak is that sense, which receives all forms and images perceived by external senses, and combines them. [8]

Rabban Tabri gave the Unani term of Ḥiss Mushtarak in his book *Firdaus-ul-Hikmat (Paradise of wisdom)* is “Bantasiyaa” which means Nafs ki Lau or Nafs Ki Takhti (Plate of Psyche). [8]

2. Quwwat-e-Khayāl (Faculty of Awareness): Intellectual faculty which preserve the knowledge perceived by Ḥiss Mushtarak. It is that sense with new sensory experiences of same or similar types can be compared. The common sense is the recipient and the awareness is the preserver. The chief seat of the functions of these two faculties is the anterior part of the brain.

3. Quwwat-e-Wāhima (Faculty of Apprehension): Faculty which decodes the meanings of those particular forms perceived by Ḥiss Mushtarak. It decide what favour of the individual is and what is against. Such a decision is not formed by reasoning power, but it is a mode called apprehension. Friendship and enmity are not perceived by the reason.

4. Quwwat-e-Ḥafīza (Faculty of Memory): Intellectual faculty which preserves the meanings derived by Quwwat-e-Wāhima. This memory may be instantaneous, short term or long term. The seat of this faculty found in the posterior region of the brain.

It is reservoir of Maene Juziya (meanings of things), comes from Quwwat-e-Wāhima. According to ancient philosophical physicians that, reservoir of Maene Kulliya (general meanings) is “Aqal Fa‘āl” from which Quwwat-e-Natiqa is received or donate the different meanings. Other name of Quwwat-e-Ḥafīza is Quwwat-e-Zakira (Remembering Power). There are two things about Zikr (Remembrance). [12]

- I. Remembering of one things which perceived earlier

II. Preservation of that things in mind thereby able to do remember next time.

Perception of meaning is the functions of Quwwat-e-Wāhima and preservation of meaning are the functions of Quwwat-e-Ḥafīza. [36]12 So, Quwwat-e-Zakira is the combination of the two Quwwat, first one is Quwwat-e-Mudrika and second, Quwwat-e-Ḥafīza. It is also known as in the name of Quwwat-e-Mutazzkira (Remembering Power) and Quwwat-e-Musta'raja (when meanings of things is removed from mind then it bring back these meanings quickly in front of mind). Therefore, in reality, Quwwat-e-Mutazakira are the combination of three Quwwat, Quwwat-e- Mutakhayyala, Quwwat-e-Wāhima & Quwwat-e-Ḥafīza. [12]

5. Quwwat-e-Mutaṣarrifa (Faculty of Modification): Intellectual faculties which modify various sensory information's in various ways and gives new dimensions to the preserved knowledge. According to many physicians, centre of Quwwat-e-Mutaṣarrifa is whole brain, because it modifies identity and meanings from every part of brain.

Idrak-e-Kulliyat (General Perception): There is one other Quwā called *Quwwat-e-Āqila Insāniyya* which percept's all general and specific factors. Quwwat-e-Āqila Insāniyya are found only in humans which is responsible for deep thinking and imagination for solving any matter and a person is capable for doing great work and inventions. [12]

Ahmad Bin Mohammad Tabri had a view that all Af'āl-e-Mudrika are performed by Āqal. He says: "Āqal is an invisible elements (johar-e-baseet) that serve the (cognitive) function of Nafs. It arranges the things according to their realities and identifies things according to their acquired facts. Nafs does numerous functions through Āqal.

These functions are the functions, where nafs perceive from things heard and things happening around and send them to Āqal, then Āqal collects and arranges them. Therefore, it is named as Āqal-e-Mustafad / Awwal / Heyulani". [4-13]

O. C. Gruner used the term "Animal Faculty" as a synonym for Quwā-e-Nafsāniyya in his translation of *Al Qanoon*. Quoting the views of *Ibn-e-Sina*, He says: "The animal faculties comprise those of perception and locomotion. The former comprise of the external sense and the interior senses. Each of these exhibit five faculties". [4]

The philosophers taken the Cognitive faculty in two sense. It is regarded sometimes as Mutakhayyala (Imaginative faculty) and sometimes as Mufakkira (Power of justification). In the view of the philosopher, the former is where the Wāhima (Apprehensive faculty) comes into play, and later is where the reason controls or decides that a given action is advantageous. The difference also lies in the fact that the imagination deals with sense, form percept where the cognition uses the percept which have been stored in the imagination and then proceeds to combine and analyse them, and then constructs different images e.g. a flying man, an emerald mountain. The imagination is not present to you anything but what it has already received through the sense organs. The seat of this faculty is in the mid portion of the brain.

AF'ĀL NAFSĀNIYYA (MENTAL OR PSYCHIC FUNCTIONS)

The functions that are performed by the psychic faculty of the body. These are performed by Quwwat-e-Nafsāniyya (Mental Power) and executed by A'dā-e-Nafsāniyya (Mental Organs). [51] The Mental faculty is the power that produces sensation and movements in all organs of the body. The organ that possess this faculty are called mental organs eg, A'dā -e-Ḥissiyya (sensory organs), Brain, Spinal cord, Nerves. Brain is the central organ of this faculty and hence the principle organ of this system. [13]

On the basis of division of different Quwā-e-Nafsāniyya, Af'āl Nafsāniyya have been divided in to following functions,

There are three types of Af'āl Nafsāniyya:

- A. Fi'l-i-Ḥiss (Sensory Functions)
- B. Fi'l-i-Ḥarakat (Motor Functions)
- C. Fi'l-i-Tadbeer (Intellectual Functions)

Af'āl-e-Mudrika (Cognitive Functions): The cognitive function that are performed by Quwā -e-Mudrika are called as Af'āl-e-Mudrika.

According to *Majoosi*, "Af'āl-e-Mudrika are the sensation and cognition. The sensation is present in all living things including human beings and animals, while cognitive functions are performed with perfection by man only. These cognitive functions especially the thinking distinguishes man and animals. *Majoosi* said that there are three kinds of Af'āl-e-Mudrika namely, (i). Takhayyul, (ii). Fikr, (iii). Zikr.

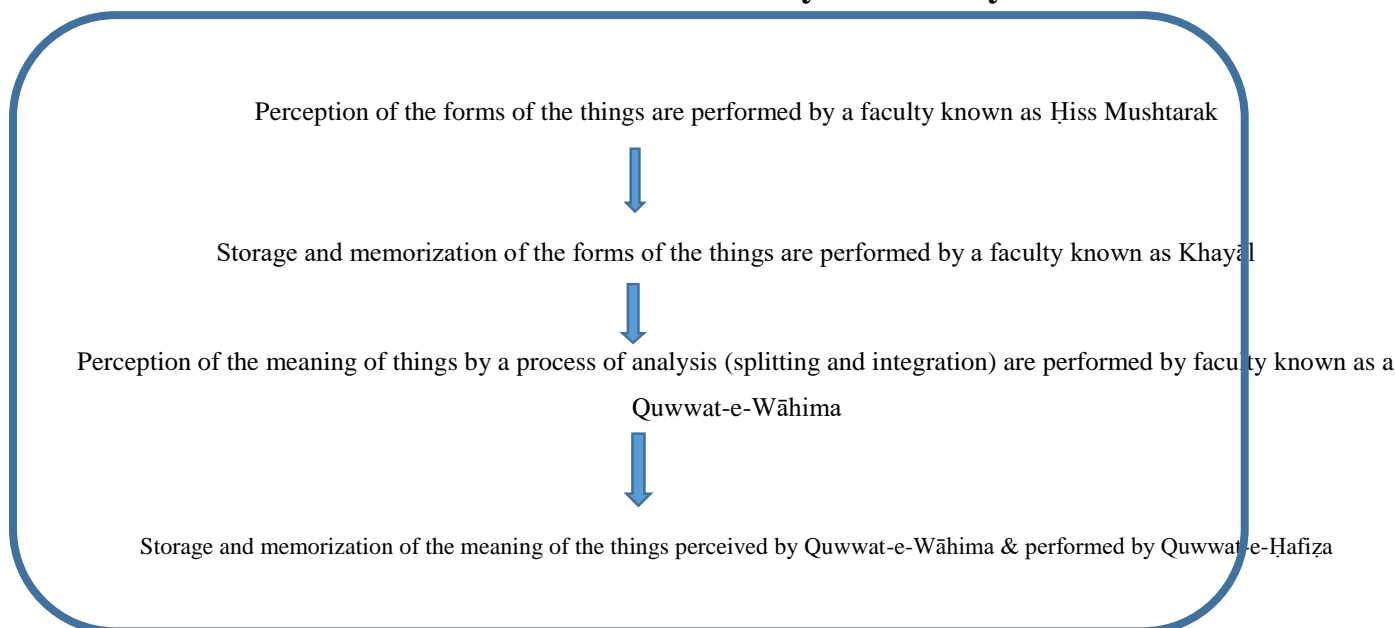
These function are performed by their respective faculties.

Majoosi also asserts that these Af'āl-e-Mudrika are the special types of movements produced by their respective Quwā -e-Fā 'ila (Active Force).

Ibn-e-Sina divided cognitive functions in to two categories namely-

- (i). Af'āl-e-Mudrika Zahira
- (ii). Af'āl-e-Mudrika Batina.

Each of these types is sub-divided into five types. The Af'āl-e-Mudrika Zahira are performed by five external sense while the Af'āl-e-Mudrika Batina are performed by five internal faculties namely, Ḥiss Mushtarak (Composite Sense), Takhayyul (Imagination), Wāhima (Instinct/Apprehension), Mutaṣarrifa (Modification) and Zakira/ Ḥafīza (Memory/ Retentive faculty).The Composite sense receives all forms and images perceived by external senses and combines them .The Imagination preserves and holds the precepts of the composite sense even after they have subsided. The Instinct combines and analysis the precepts which have been stored in imagination. The Apprehension stores the decision of actions and comprehends the percept while the Memory/ Retentive faculty is a repository and holds the supra-sensuous ideas discovered by the apprehensive faculty. Mechanism of Quwwat-e-Ḥafīza shown in figure 04.

Figure-04**Mechanism of Faculty of Memory****DISCUSSION:**

Therefore, the Af'āl-e-Mudrika performed by Quwā-e-Mudrika can be summarised as follow:

1. Receiving information by external senses, 2. Pattern recognition and information processing, 3. Analysing the results, 4. Outputting the results as different functions, and
5. Storing information and recalling whenever required. ^[14]

AF'ĀL-E MUDRIKA AND MIZĀJ (COGNITIVE FUNCTIONS & TEMPERAMENT)

Af'āl-ul-A'dā is an important determinant of Mizāj. Physician have always been trying to withdraw clues about the individual temperament by observing the functional state of the body organs. *Rabban Tabri, Razi, Ali Ibn Abbas Majoosi, & Ibne-e-sina* explained that *Faculty of Memory* is one of the important parameter for assessing Mizāj and mentioned it under the heading of body functions.

Relation of Quwwat-e-Mudrika with Mizāj: “Af'āl-e-Nafsāniyya guide in temperament assessment like the signs of hot temperament are such as the subject is intelligent and moves quickly and talks rapidly and is eager to do any work, does not pause during conservation and walk without any hesitation”. ^[7] Confusion & sluggishness is an evidence of coldness. ^[8, 15, 16]

- *Hot* Temperament indicate pertaining to the action and reaction of psyche are acuteness of perception and memory, excessive initiative, over trust, optimism, callousness, and active habits. Persons of hot temperament have rapid body activities, strong voice, talkative nature and their movements are excessive and strong, as shown in Figure-05. ^[17]
- *Cold* temperament is characterized by opposite of these qualities & the cold temperament people have slow bodily functions, weak and slow pulse, poor thirst and digestion.
- *Dryness* indicate persistence of joy anger and good memory.
- *Excessive moisture* indicate forgetfulness.

Choleric Temperament:

Majoosi considered the sharpness of mind and excellent memory, as the indicators of bilious temperament; which means that the bilious individuals are intellectual and their abilities of observation, analysis and interpretation are quick. He says that,

“The (human) body which has bilious (hot & dry) temperament shows its sign in the leanness of the body, excessive blackish hair, whitish complexion, hot and hard texture of the body, sharpness of mind, excellent memory, bravery, eagerness to fight, strong appetite, rapid and easy digestion of heavy foods and strong sexual desire”.^[3]

- Choleric individual are active plus straight forward and persistent.
- They cannot control their feelings, they are impatient, their goals and interests are not changed for a long period of time until their task is completed.
- They tend to make a decision on their own.
- They are optimistic, confident, brave and resolute.
- Choleric temperament has a lot of energy. If this person has a goal, he immediately does everything in order to achieve it and stopping him is almost impossible. While *melancholic* thinks of a plan of action, *sanguine* talks about it, choleric achieves his goal and looks for new challenges.
- Choleric Temperament are analytical, logical; and are masters at figuring things out.
- A balanced *sanguine* does not want to perform an impossible task, a phlegmatic does not want to solve it and a *melancholic* tries to get rid of difficulties.

Phlegmatic Temperament:

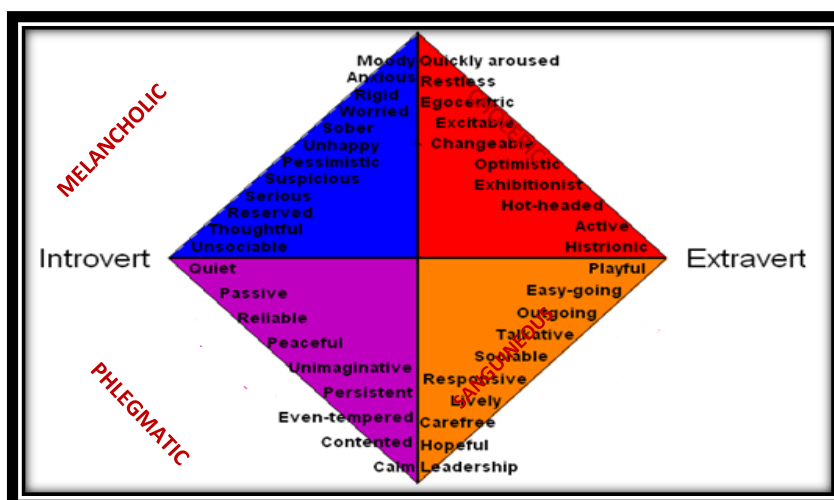
About the Af'āl-e-Mudrika of cold temperament *Majoosi* says that, “The human body which has cold temperament can be seen among people who walks slowly, are mentally dull and can't understand things well. Such people owns a heavy and pauses during conversation. They move with laziness and do every work slowly”.^[3]

While describing the sign and symptoms of phlegmatic temperament, *Majoosi* says: “The body having phlegmatic (cold & wet) temperament show the signs like whitish complexion, fatness, and if their body is touched the skin feels cold and soft that lacks hairs. Individuals having this kind of temperament will be mentally dull and forgetful in nature with bad memory and lower intelligence; he is frightful, coward having weak appetite and decreased sexual desire”.^[3]

Ibn-e- Sina regarding the signs of phlegmatic temperament says, “A weak digestion with acid eructation, pale urine, excessive sleepiness, flabby muscles, mental dullness, a soft pulse of slow rate and speed are the characteristics of this condition”.

Zaidi and *Zulkifle* hold the opinion that since functions of an organ reflect its functional and structural integrity, they indicate within physiological limit, equable temperament of the organ. Functions and actions when accelerate beyond physiological limits becomes indicative of hot temperament of the organ.^[2, 16]

Figure-05
Qualities of four Temperaments



Conclusion:

So the features and characteristics of these all four temperaments differ from each other's. Bilious and phlegmatic individuals show different types of signs and symptoms as their physiological, physical, & psychological features opposite to each other on the basis of their hot and cold temperament respectively. In all temperament *Ḥarārat* (Hotness) is the indicator of high activity & decrease in *Ḥarārat* ultimately leading towards *Burūdat* (Coldness), shows sluggish functions. *Yubūsat* (Dryness) & (Moistness) are the supporters of *Kayfiyāt Fā'ila* for the targeted levels of functions. Brain functions of bilious individuals to be faster in comparison of other temperament due to the prevailing heat and dryness in their temperament.

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