

The Brain and the Synthesis Of the Centers

By Malvin Artley

The brain has fascinated mankind for ages. It has always been recognized as the seat of our consciousness and yet when we see one, we are at a loss to understand how such a mass of gray and white matter can form the basis of our thoughts. For the past few centuries, we have studied the brain in great detail: dissecting it, probing it, mapping its features and its circuits. There is still much that is unknown about it. Psychiatrists have studied behavior and made efforts at equating this behavior with brain function, sometimes with, but often without, success. It is the most enigmatic organ in our bodies and yet it controls almost all of our physical functions. As a computer and sensory apparatus, it has no peers but it is also much more than that as we know. Every physical function has its correlation or initiating impulse in the brain which makes it, therefore, the great synthesizer for the body. Yet, for all this, the one thing we as humans prize it for is not to be found there - mind.

As we would expect, the situation is the same in man's subtle anatomy. All the chakras below the head find their synthesis and correlating centers in the seven head centers—three major, four minor.¹ The enigma of brain function carries through to these subtler realms as well. Most students of esoteric thought know little about them, though this can be largely attributed to the scarcity of information made exoteric about them. In the past two decades especially, there have been many books written about chakras, some very good, but most lacking in substance. Even the good ones fail to mention very much about the head centers and their correlation to brain

function, or even more so, about their being the synthesis of the lower centers. With this in mind, we set out here to begin solving somewhat this puzzle of the head centers and their correlation to the brain.

Some restating of known material is in order here. As mentioned above, the head centers are composed of three major ones—the crown, brow, and alta major centers. These have their physical points of correspondence in the pineal gland, pituitary body and medulla oblongata, respectively. There are also four minor centers that have their synthesis in the alta major center. These seven centers also correspond to the Rays—the three major centers with the Rays of Aspect and the four minor with the Rays of Attribute as we would expect. Further, the crown equates with Ray 1, the brow or ajna with Ray 2, and the alta major with Ray 3. (This is not given out, but will be vindicated shortly). Ray 5 is normally associated with the ajna center, but we are speaking of the head as a unity and synthesis of all the centers. Their spatial arrangement in the head demonstrates this relationship also. The crown center is located at the top of the head, the alta major at the base of the skull with the ajna mediating between these two. The rays of the four minor centers are not given out, though a little reflection would yield keys. It may also be of interest that there are more than a few high grade clairvoyants who report that there are five additional chakras above the head², but absolutely nothing has been given out about them save that they are concerned with transcendental consciousness and words fail any description of experiences in them.

We will begin our investigations with the alta major center, the embodiment of the third aspect in the brain. Since there is little given out about this center, we will spend the bulk of our time on exploring some of its functioning. We will have to rely somewhat on the observations of high grade clairvoyants to aid us in this task. This center has been called the Bindu, or Mouth of God center.³ It is related to the throat, though not part of it.⁴ We should note that in the physical brain, the medulla has dominion over the autonomic (automatic or or unconscious) nervous system. It governs many of our reflexes and is almost entirely preprogrammed. The higher brain centers do impact and sometimes override this body of nerves, occasionally to the point of illness or death. It extends from the top of the spine to the pontine bulge and, though it functions primarily below the level of consciousness, it helps govern our waking brain consciousness through the reticular formation (a nerve matrix in the center of the brain stem extending upward to the thalamus). It is also the physical representation of the antahkarana and becomes esoterically active when the antahkarana is being consciously utilized.

Already it can be seen why this center is equated with Ray 3 or Active Intelligence. This is the Ray that governs matter, which is itself preprogrammed, though evolving, functioning largely unconsciously, finding its own order if left to its own devices, but responsive to impulse from higher sources. The medulla governs our basic body consciousness, that active intelligence that keeps the body functioning smoothly, even when the Jiva is not present (as in sleep or deep meditation). There are found the nuclei that govern such automatic functioning as respiration, heartbeat, arterial pressure, gastrointestinal functioning, taste and speech. All but speech lie below our level of consciousness. Actually these functions are governed by the four minor head centers, and these will be scrutinized in due course.

The Tibetan tells us that the gland associated with this center is the carotid gland⁶

which has a direct bearing on heartbeat and respiration. This gland is actually two glands, both pea-shaped structures approximately 1 to 2 mm in diameter that are situated at the carotid sinus - the point at which the carotid arteries bifurcate and go up into the skull. These glands are found behind the top of the trachea at the level of the chin. There are also two other very similar bodies found on the aortal arch and these perform the same function.

What these glands do exactly is to monitor oxygen, carbon dioxide and hydrogen ion balance in the blood. They also monitor blood pressure thresholds. If the oxygen content falls below a certain level, certain chemo-receptor cells in these glands send nerve impulses to the respiratory and cardiac nuclei in the medulla causing the heart rate and arterial pressure to rise in compensation. Also, if the blood pressure falls below a set amount, a similar process takes place. Do we begin to see a correlation with breathing exercises here? The breath and the mind are one, we are told. Now, if the alta major center is the portal (and it is) through which information from all the lower centers must pass, what effects do breathing exercises have on the way this information is handled and processed? It naturally has a very great effect, and a very disastrous one if misapplied. Hence, we have the admonition not to engage in breathing exercises (pranayama) unless under the strict guidance of an illumined teacher.

As mentioned, there are also two very similar bodies located on the aortal arch performing the same function. All these bodies (carotid and aortal) monitor arterial blood in distinction to venous blood. This is blood that has been oxygenated and passed out through the heart. On an etheric level, these bodies monitor both the life force or prana as it has been conditioned by the heart center and its fitness for use by the etheric body. It can be clearly seen that the alta major center is the master governing center for basic functioning and health of the etheric body. The two carotid bodies send impulses via Herings nerves and

merge into the, glossopharyngeal nerve trunk. The two aortal bodies send their impulses via vagus nerve fibers. These two nerve trunks have their origin in the medulla.

Some consideration of the vagus nerve would be valuable at this point. As stated, this nerve, having its origin in the medulla, is also connected with the alta major center. It is largely autonomic in its functioning, though it does transmit back some sensory information from the mouth and pharynx. Almost all of the information from the medulla concerning essential body functioning is sent along this nerve. For the disciple not under direct monadic control, it is the major pathway for information filtering down through the head centers.⁷ (The spine takes up this function after the third Initiation.) Its branches terminate in the heart, lungs, stomach, liver, mouth, tongue, larynx, pharynx, pancreas and down through the splenic flexure in the large intestine. Hence we can see why it is such a powerful nerve. It is connected also to a powerful minor center a short distance from the thymus and is connected also with the heart, as we have seen, and with the base of the spine.⁸ The raising of the kundalini activates the vagus nerve and thus swings the entire nervous system into the soul's rhythmic pulsation, connecting the heart rhythm to this greater rhythm. It does not raise the kundalini as some have speculated.⁹ It also seems very plausible that the alta major center uses the vagus nerve to regulate immune response since it is connected with the afore-mentioned minor center at the thymus.

Continuing on with the medulla and alta major center, it becomes apparent that this is almost exclusively a physical center and connects the higher brain centers with the physical plane. A working hypothesis can be set forth at this point. Essentially, the brain can be divided into three sections: the medulla, the midbrain with the limbic system and the cerebral cortex. It would seem these would correspond with the three lowest systemic planes: a) medulla with the physical plane, b) midbrain and limbic system with the astral

plane, c) cerebral cortex with the mental plane. This seems a crude analogy, but upon taking a closer look, we find the same sort of arrangement hierarchically speaking in each of the three brain sections. Each section of the brain is composed of various nuclei, each performing its specific function. Also, we find increasing complexity as we go upward into the brain.

Finally, these centers can be looked at in terms of consciousness. The medulla has virtually no reasoning consciousness and functions almost entirely automatically. The midbrain and limbic system function almost entirely on an emotional level with rudimentary reasoning powers. The midbrain and limbic system are reactive in their responses and possess rudimentary memory capabilities. The akashic records are found on the astral plane and the limbic system is the primary processing center for memory. The cerebral cortex is largely a huge memory bank but our reasoning faculties are located there, mostly in the frontal lobes. The cortex is largely an associative body, comparing incoming to stored data but also rearranging it. It is quiescent during most phases of sleep and what is termed transcendental meditation but highly active in the waking consciousness and the deeper phases of occult meditation.¹⁰ The cortex gets all of its information from the lower brain centers and is, in the final analysis, the synthesizing portion of the brain.

One fact about the alta major center that is not generally known or accepted is that it performs a sensory function in addition to the others enumerated.¹¹ Students of brain function know that memory is controlled and accessed in the base of the brain. The alta major center has also been called the Quelle (specifically the lower aspect of this) or the Bronze Lake.¹² Our samskara is contacted here and it is the seat of our lower subconscious. It contains the records or blueprints for the body, the keys for its proper functioning and is the atavistic mind.¹³ Here are contained the ancient gene memories from countless lives¹⁴ and it can be considered to function as a sort of

Lemurian consciousness. In short, it is the storehouse of our karmic liabilities but also of our spiritual heritage. It contains condensed, fiery packets of prana (this is due to our samskara because darkness is contractive) which creates the bronze color and it gives off a hissing sound audible to clairaudients.¹⁵ Bronze is a color often seen in relation to the akashic records. This area is literally Pandora's Box. The higher subconscious or higher quelle is contacted in the mid brain.

It is considered as Pandora's box because when this center is activated, we are put in touch with our most primal instincts, our ancient past life tendencies, our failures at proper integration during past lives (and hence our present propensities and basic programming as a result of these causes) and the more unreasoning or unreasonable side of our nature. The alta major center can be considered to have a Saturn–Pluto–Moon type of combined influence. When contacted by disciples, they come under this Plutonian cleansing experience that can be greatly disconcerting and even devastating if done outside of right timing, because this normally unconscious programming is out-pictured into the consciousness. The quelle does this by projecting these skandas up into the ajna center much like a movie projector onto a screen. The person either identifies with the picture in which case the karma in question is proliferated or there is a deliberate effort on the part of the person to extricate himself from the experience in which case a trial by fire ensues and the samskara is cleared. The key to correct timing and resolution with this center lies in recognition of the Saturn–Lunar cycles.

The alta major center performs its function of censorship by monitoring our utilization of prana and spiritual force and comparing it to the programming or karma contained in the center. If we go too far afield for too long a time, it can literally shut down any further efforts along a contrary path. This has been seen more than once, for instance, in the person who makes spectacular spiritual development in a short time and then for no

apparent reason drops out of sight or becomes extremely ill. These people have accessed memories that run counter to their planned development in this life and indulged them. We see this most often in people who dabble in magic (remember the Law). Out of the Mouth of God comes the decree: "Thou shalt not..." The interplay between the head and lower centers becomes disjointed if the practices are persisted in and this appears to the clairvoyant as a crooked or zig-zagged power current (etheric spinal current) in the neck.

A scene in the recent movie "Dragonslayer" comes to mind. The sorcerer's apprentice has set out to do battle with a dragon that has been terrorizing the countryside (the people have offended it by not conforming to accepted practice). He has been instructed by his master who speaks to him through a friend to find the "burning water" and to cast the master's ashes into it (the master has been killed and cremated), whereupon the apprentice will be granted power enough to do in the dragon. Upon following the dragon into its subterranean lair the apprentice is confronted by a rather large underground lake with—you guessed it—fire dancing around on the surface. The dragon appears at this point and a short battle ensues wherein the apprentice barely escapes with his life. He makes his way back down to the lake, casts in the ashes, and the fire is gathered together into a large fiery pillar in which the master appears. He has not been dead, it appears, only transformed. The fire in the lake has disappeared at this point and what is left is a clear, still pool. Together the master and apprentice go off together to finally defeat the dragon whereupon the apprentice is told by the master he has had the power all along. There is other symbolism to be sure, but this is an excellent modern myth representing the experience in the alta major center. A little reflection should yield the key.

As mentioned earlier, the medulla sends out motor nerves for speech, and the alta major center has been called the Mouth of God center. This opens some fascinating venues for investigation. This center is primarily the

expression of the third Aspect in the head, as we know. The throat center holds the same relation to the torso. The two centers are very close in proximity in the body. There is said to be a separating web between the alta major and throat that is dissolved as the antahkarana is built. What does this suggest to us? It can be said that Ray 3 is the Law in application. Given the fact that human beings are by their very nature somewhat lawless, we would expect this area of the etheric body to be a potent source of trouble - which it is. We have only to look at all the heart disease, gastric disturbance, respiratory trouble, digestive troubles, problems with elimination (all controlled by the medulla), criticism, harsh speaking, lies, not to mention even thyroid trouble to see that, yes, we may have some problems in this area. Need we say more? Our vehicles are in a pitiable mess all because we refuse to obey Nature's beautiful and just Laws.

Law and acceptance are two key words for the throat center and, on a higher octave, for the alta major center. The back of the neck and base of the skull are very vulnerable areas for most people, psychically considered. We leave ourselves open to attack there because we break the rules for right existence. The devas are contacted in these centers, also¹⁷, but only as we become law-abiding or become privy to certain magical formulas. However, this is not desirable or safe without the requisite spiritual unfolding. Devas are contacted by sound, symbol and color. The proper intoning of mantrams has a powerful effect because not only does this set the ethers in motion but it attracts certain of the devas and elementals to us.¹⁸ The quality of our speech naturally determines the quality of these beings attracted. If our speech is true and high minded (as well as correct), we attract high essences to us, our bodies are healed, and our work takes on power. If our speech is harsh, we damage the subtle environment around us and damage our vehicles because the healing devas are driven away and we become the playthings of more mischievous or downright destructive

entities. When the tongue loses the power to wound, then the mysteries are opened to us.

It may be of interest to note that the alta major center is the one involved in the fifth and sixth Initiations.¹⁹ Only the Masters are given the keys to complete knowledge of their own and others' soul histories. Only when fit to take these initiations is the burning bronze lake transformed into the still pool reflecting the light of spirit. Only the Master has overcome all samskara, defeated His dragon(s), is given custody of the plans for humanity's unfolding and functions with complete freedom in the totality of his being.

The four minor head centers can be examined briefly but we can draw no hard and fast conclusions about them. They are contained in the alta major center as stated earlier. The medulla, being the correspondence of that center in dense matter, has no special divisions that would warrant being called representations of these four minor centers - except for some nuclei (a nucleus is a specialized mass of nerve cells) and possibly certain bodies similar to the carotid bodies situated close to various plexi throughout the trunk of the body. In fact, the two bodies mentioned earlier that are situated on the aortal arch may be the glands associated with one of these minor centers. The main nuclei or conglomerations of nuclei and their functions are as follows:

- a) the olivary nucleus - the largest of them, receives nerve fibers from the spinal cord, mid-brain, sub-thalamus and cortex. It also sends some nerves to the cerebellum. It is largely involved in the relay of motor and sensory signals between the higher brain centers and the spine. It covers the top two thirds of the medulla.
- b) glossopharyngeal and hypoglossal nuclei - (autonomic control of salivary glands, sensory nerves for papillae taste buds) of the tongue and motor control of the tongue.
- c) accessory nucleus - motor control of pharynx, neck and shoulder muscles.
- d) vagus nuclei - motor control of respiration, cardiac rhythm, blood pressure, viscera and

spleen. It also controls portions of the pharynx, larynx and receives signals from the rear of the tongue.

There are many such nuclei, but these are the main areas as they concern our investigations. All the nuclei of the medulla are also included in these four groupings. Many of the functions of the medulla and its internal workings remain unclear.

With respect to ray qualities and these centers, there are several possibilities and these are certainly open to much pondering and discussion, but here is one set of relations:

<i>Nuclei</i>	<i>Ray</i>	<i>Function</i>
Olivary Nucleus	Ray 4	Balancing of the opposites. Unity is produced
Accessory Nucleus	Ray5	Conscious response to knowledge
Vagus Nucleus	Ray6	Control of the blood and life force
Glossopharyngeal and Hypoglossal Nuclei	Ray 7	The magical use of sound

As stated, these are only meant to stimulate thought and may or may not be correct. The reader is advised to draw his/her own conclusions.

Moving on to the ajna and crown centers now, we will not spend as much time on them because there is already an abundance of written material about them, except for a few points that may not be common knowledge. Starting with the ajna center-this center is commonly called the "third eye" although, strictly speaking, this is not an accurate statement. The true third eye, which is the organ of perception for the spiritually awakened person, is actually a synthetic organ composed of the three major head centers, all vibrating to a certain degree and also all

functioning as a unit.²⁰ We will come back to this point. The ajna is located at the point between the eyebrows and has its physical correspondence in the pituitary body. We know the ajna center is utilized first as a director of personality force and for personality integration before it is utilized in spiritual perception.

If we examine the pituitary body, we find that it is the main regulator of hormone excretion and therefore of body functioning. It secretes hormones that regulate the thyroid, adrenals, gonads and growth, to name a few. It is easy to see how this would be equated with the ajna center in terms of personality integration, but this says nothing about perception. What is not generally known by the public at large, is that the pituitary is in turn governed by peptides generated in the hypothalamus (an offshoot of the brainstem). This is in turn governed by the limbic system, the thalamus in particular. As mentioned earlier, the limbic system was equated with the astral plane (here we have one connection of the ajna with the second Aspect), and has a rudimentary sort of reasoning consciousness. All of the senses except for taste and some hearing pass signals primarily through the limbic system and thus our basic emotional responses are conditioned in this manner. In fact, hormones are generated to a extent in response to emotional or instinctive impulse to start with and only afterwards are modulated by the cerebral cortex. Our basic responses based on perceived environment are generated here. We have only to take this on a higher turn of the spiral to see how this can work out in regard to spiritual direction and reception. The ajna center, it should be remembered, is primarily the center of the integrated personality. There is an apparent controversy that exists about which center, crown or ajna, rules which gland, pineal or pituitary. Perhaps the above coupled with the following will help to resolve this somewhat. The pineal gland is situated at the apex of the brainstem and has nerve connections with the visual nerve pathways. Its function is still not clearly

understood though it is known to secrete the hormone melatonin, which has a direct action on gonad secretion.

The pineal gland is activated entirely by sensation of light (actually by absence of it) and by means of this regulates the circadian rhythms in the body. This factor of light is where the confusion creeps in. This is the organ at a physical level that senses the changing of the seasons by the length of the day and perhaps even by the phases of the moon. In so doing, it adjusts fertility and mating cycles and many other cycles. In short, this is the gland that puts us in touch with the larger scheme of things in distinction to the pituitary body that puts us in touch more so with our immediate environment. The pituitary body exhibits response to light also, but it is more personal in its response, whereas the pineal gland is more responsive to the grand scheme of the heavens and is more impersonal.

The pineal gland also ultimately controls the pituitary body through hormone secretions. We would expect this if the Tibetan's delineation of rulerships holds true because the crown center ultimately synthesizes all the other head centers and enshrouds them. Melatonin, the chief pineal hormone, has binding sites in the hypothalamus that controls the pituitary body. This is the method on a physical level whereby the pineal gland is brought into relation with the pituitary body.

We return now to our discussion of what the third eye really is – a synthetic organ. Delineating further, we find that the third eye does not convey direct clairvoyance as most students assume, but is the organ through which direct and certain knowledge is obtained. True clairvoyance only comes about as the result of the thinning or destruction of the etheric webs in the head. It is connected with karma (re. alta major). The third eye has been called the mirror of the soul. It exists in etheric matter in front of the head and on the level of the eyes and is formed as a result of the functioning triangle of the three major centers in the head. In the spiritually

regenerated man, it is active and must be acquired through strict spiritual discipline and loving service before safety and accuracy in its use can ensue.²¹ Therefore, we have the triangle of (a) spiritual light and knowledge (crown); (b) the consecrated and soul-infused personality (ajna); and (c) karma (alta major) forming the basis of the true third eye.

The third eye also plays a role in dreaming. The types of dreams a person has gives clues as to which of the head centers are functioning or function more strongly at any given point of development. When all three centers are inactive, the higher dream states are not recalled. When only the crown is operating, the person participates in the dreams because the factor of will is involved. When only the ajna is operating, the person recalls the wish level of dreaming because the imagination and visualizing capability is operative. When only the alta major center is operative, the grotesque and fantasy levels are remembered. Sometimes past life dreams occur here, also. Most of the time, it is some combination of all three centers. When all three are functioning, the person has perfect dream memory and full recognition of spiritual activity during the hours of sleep.²²

The final major head center to be examined is the crown center. This has already been covered somewhat through examination of the pineal gland. The crown center is centered in the top of the head, but actually exists approximately two inches above it in etheric matter. When unfolded, it enshrouds the entire head and creates the halo or nimbus we see in paintings of holy people. The cerebral cortex is the representation of it in gross physical matter and corresponds also to the mental plane for the personality. It is worth noting that as animals rise on the evolutionary ladder and increase in their ability to contact the mental plane in some small measure, the size and complexity of the cerebral cortex increases. This is seen most strikingly in mammals and some occult sources list them as being on the line of human evolution. There are a few mammals such as dolphins whose brains rival

ours in size and complexity, and we are left wondering what kind of consciousness is expressing through those bodies - devic, maybe? They live their lives almost exclusively by sounding, but this will have to wait for a future paper. There is not much given out about the crown. So few people live their lives there as it is the center of spiritual impulse. What more can we safely say about it?

The cerebral cortex is what enables the animal or personality to exhibit thought on the physical plane. As mentioned, it is essentially a large memory storehouse, though memory is accessed and processed mostly in the base of the brain. It provides us with our finer interpretative functions, gives us grace to our movements, dexterity, finesse and the ability to formulate. It is the higher correspondence to the limbic system. Except for hormone secretion, it performs more of what the limbic system does, though with infinitely more precision and expanded capability. All of the senses have their final terminating points in the cortex though some of this information is utilized by the limbic system and medulla for automatic or quick response to stimuli. In concluding our investigations, some mention should be made of how the centers below the head relate to the brain structure. We have already examined some of these relations, but we can take them a bit further. It should be held clearly in mind that the centers below the head have no thinking consciousness as we understand it. They are simply transmitters and receivers for the head centers. Think on this. We are always given the injunction to live on the mental plane and this is one reason why. To dwell in the lower centers is to become differentiated and somewhat divorced from our sense of direction. The person on the spiritual path functions through the centers above the diaphragm, but through is the operative word. We must all become eventually centered in the head and then the centers below will function normally and automatically.

Very briefly, here are some correspondences and relations between the

lower centers and the head centers. For clarity:

crown center	head and brain (synthesized head center)
ajna center	heart
alta major	throat

For the lower centers: the sacral center is related to the pineal gland and a portion of the pons. The base and spleen centers are related to the medulla oblongata. The solar plexus is related to the thalamus because the thalamus is the great clearing station for nerve signals from the rest of the body. This is in the same manner as the alta major center being the clearing house for all the centers below it in the spine. The solar plexus is also related to the limbic system for the same reason. The limbic system forms the basis of our emotional response. This is a clear correspondence. The pineal-sacral connection may not be so clear, but remember, it is the pineal that regulates the reproductive urges in the animal man. There would appear to be a great occult hint tied up in this. The sacral is the respository of creative force on the physical plane and the pineal opens us up to the higher creative forces. The sacral is also the seat of the mental elemental.²³ There is some fascinating literature out about the pineal-gonad connection which is highly recommended reading.²⁴ The sacral is related to the pons through urinary bladder control, temperature regulation the sacral also has a pranic function) and control of hand and finger movements in concert with the cerebellum (the hands are our primary means of creation on the physical plane aside from sexual reproduction). The base of the spine and spleen center correspondences have already been touched on.

Naturally, such a subject as this one bares far better treatment than can be given in such a short space. The possibilities seem endless and the more we know about brain function and also about how the centers function, the richer and wider our vision becomes. It seems

almost a pity that the books out about the centers make little or no mention of these things. Perhaps, and hopefully, this will at least open some discussion on this matter. As our knowledge of brain function, physiology and psychology opens these correspondences will inevitably be worked out. The discoveries of exoteric science always flow on occult happenings. Our bodies serve us well, but we have brains—why not use them?

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