# Brain Systems

Gurdjieff's Concept of Centers in a Man

This paper discusses the ideas concerning centers and consciousness presented in both P. Ouspensky's work, The Psychology of Man's Possible Evolution and lectures by Mr. Gurdjieff reported by Ouspensky in his books, In Search of the Miraculous and The Fourth Way. The concept of centers, the field of attention and the wrong work of centers must be understood as a foundation to self-observation. There will be no apology for starting simply in presenting this subject. The information in this series of papers on centers, while not painfully difficult to grasp, may seem quite alien even to the well read student of The Fourth Way.

Hold the saber loosely. Find your curiosity. Employ and enjoy.

I have included ideas of my own in the hope that they may prove helpful. I will endeavor to delineate the teaching of Mr. Gurdjieff and the gratefully appreciated work of P. Ouspensky from my own thoughts.

## OVERVIEW

### WHY STUDY CENTERS?

This is an explanation of the construction of the mind in symbolic terms. The elements described in this paper are strictly functional elements. It is necessary to consider them separately from modern physiology, which although more complete now than at the time of Mr. Gurdjieff's writing, has as of yet not created a functional model which can be reconciled with the physical brain. Likewise, Mr. Gurdjieff's reference to "phonograph rolls" no doubt stems from his interest in finding a mechanical analog to brain functions. He would probably have been fascinated by a modern PC and the similarities between its RAM memory and activities of the human mind.

Mr. Gurdjieff made the admonition "Know Thyself." He introduced the theory about the functioning of a mind with respect to centers. The theory was expanded to provide a higher resolution of centers within centers (i.e. the intellectual part of the emotional center). Various types of thought were ascribed to specific centers and to centers within centers. This appealing concept lacked only a rigorous treatment. Every student who encounters it develops an appetite to understand the idea fully.

The definition of thought processes ascribed to certain centers (within centers) is almost purposefully vague and incomplete. The bits which are described in the text are but tantalizing glimpses of what a student might imagine of the

whole.

The paper is written for my school. The thoughts are my thoughts. They are given here for the benefit of my students. Items included focus in a specific way on certain information essential to recording attention and understanding the symbolic components of functional brain structures.

## CENTERS

IMPORTANT NEW LANGUAGE FOR THE FIVE PARTS

The following information is excerpted from the sources noted. In each case the title and page are provided to encourage further study of the complete work. The portions presented here have been selected as a cursory basis of information and understanding.

Five centers are described in the work. Each primary center is divided into three parts. Mention is made that each of the three parts of each center is further divided into three parts and so on. This paper deals with the first division only, that is, the centers as symbolized in the boxes below.

| I M E | I M E | I M E | I M E | I M E |
|---|---|---|---|---|
| Intellectual | Moving | Emotional | Instinctive | Sexual |

As a convenience these centers and their parts will be described with a capital letter to indicate the primary center followed by a lower case letter to indicate the secondary part. The instinctive center will be noted as **IN**. Consequently, **Me** will refer to the emotional part of the moving center. **Ei** will refer to the intellectual part of the emotional center, and **INm** will refer to the mechanical or moving part of the instinctive center. These abbreviations will be in bold face for clarity.

In the series of lectures first published in the U.S. in 1950, Ouspensky gives furtive treatment to the assignment of certain types of thought to certain centers within centers.

*INTELLECTUAL CENTER*

*mechanical part of the Intellectual Center* **[ Im ]**

1. works almost automatically
2. it does not require attention
3. cannot adapt to changes in circumstances
4. cannot think ... continues to work in the way it started when circumstances have completely changed

5. *includes in itself* all the work of registration of impressions, memories and associations

6. should never reply to questions addressed to the whole center

7. Formatory apparatus – can count to two/dualistic

8. it is always ready to decide and it always replies to questions of all sorts in a very narrow and limited way – in ready made phrases, in slang expressions, in party slogans

*emotional part of the Intellectual Center* [ **Ie** ]

1. consists chiefly of intellectual emotion

*EMOTIONAL CENTER*

*intellectual part of the Emotional Center* [ **Ei** ]

1. acts with the help of the intellectual part of the moving and instinctive center
2. power of artistic creation
3. chief seat of the magnetic center

If the magnetic center exists only in the intellectual center. . . of the emotional center, it cannot be strong enough to be effective and is always liable to make mistakes or fail.

4. intellectual part of the emotional center, when it is fully developed and works with its full power, is a way to the higher centers.

*MOVING CENTER*

*emotional part of the Moving Center* [ **Me** ]

1. *connected chiefly with* the pleasure of movement

2. love of sport and games *should normally belong to this part* of the moving center, but when identification or other emotions are mixed with it, it is very rarely there, and in most cases the love of sport is in the moving part of either the intellectual or the emotional center

*intellectual part of the Moving Center* [ **Mi** ]

1. invents one's small methods for doing everything one does

2 many other inventions of man also need the work of the intellectual part of the moving center

3. i. e. the power of imitating at will the voice, intonation and gesture of other people, such as actors possess, also belongs to the intellectual part of the moving center, but in higher or better degrees, *it is mixed with the work* of the intellectual part of the emotional center

*INSTINCTIVE CENTER*

*mechanical part of the Instinctive Center* [ **INm** ]

1. mechanical part *includes in itself* habitual sensations which very often we do not notice at all, but which serve as background to other sensations
2. also instinctive movements in the correct meaning of the expression – that is all inner movements ... blood, food ... and inner and outer reflexes

*intellectual part of the Instinctive Center* **[ INi ]**

1. very big and very important. In the state of self-consciousness or approaching it, *one can come into contact with* the intellectual part of the instinctive center and learn a great deal from it concerning the functioning of the machine and its possibilities
2. The intellectual part of the instinctive center is the mind behind all the work of the organism, a mind quite different from the intellectual mind.

*GENERAL NOTES:*

The study of parts of centers and their special functions requires a certain degree of self-remembering.

Without remembering oneself one cannot observe for a sufficiently long time or sufficiently clearly to feel and understand the difference of functions belonging to the different parts of different centers.

The study of attention shows the part of centers better that anything, but the study of attention requires, again, a certain degree of self-remembering.[1]

Note the VERBS used in Ouspensky's description (shown in italics, added here). The verbs used by Ouspensky in describing the engagement of various types of thought or types of work with each center are of interest. What is not said, notably, is that ". . . this center does this type of work." Rather, the status of the centers as he describes them is almost passive, constituting, perhaps, more of a location or apparatus which *contains an activity* during the process of performing certain types of thought work.

**Im** *includes in itself* the work of registration
**Me** *is connected chiefly* with the pleasure of movement
**INm** *includes in itself* habitual sensations

The origin of these ideas about centers was unquestionably derived from the work of Mr. Gurdjieff. Mr. Ouspensky, on the other hand, undertook the reporting of this information from his own notes and memories of lectures by Mr. Gurdjieff. The contemporary student of Fourth Way must, of necessity, rely heavily on Mr. Ouspensky's records of Mr. Gurdjieff's thoughts, lectures and other work.

[1] Ouspensky, P. The Psychology of Man's Possible Evolution. page 107.

A dramatic schism separated the two. Although not particularly relevant to this paper, an account of Mr. Ouspensky's thoughts considering the event appears in the final section of his small book.[2] The severity of this disagreement was sufficiently intense to cause Mr. Ouspensky, especially in his book of Mr. Gurdjieff's lectures, In Search of the Miraculous, to refer to the primary source of Fourth Way ideas as simply "G." Today, there exist schools calling themselves "Fourth Way Schools" which are oriented exclusively to one or the other of these two men. A person reading this paper will quickly note the copious use of information from both.

Mr. Ouspensky, speaking to his students in "Lecture Held Thursday, 23 September, 1937," takes an opportunity to reveal in full measure his enmity for George Gurdjieff. The dispute was founded on some, no doubt, tangible issue concerning the system of the Fourth Way. As common to human affairs, the "tangible issue" faded almost to invisibility when it was compared to the "bright shiny object" which became available to students under both Ouspensky and Gurdjieff when the conflict became known. Later, the "bright shiny object" was reformed into what Beelzebub would term to be "the burning question of the day."

No person presently alive has any conclusive evidence that their difficulty led to any intentional diminution of the value of the work of either man. For the student who works, The Fourth Way contains nothing hidden, no secrets held in a state of "keep away" to manipulate the sincerely curious.

## Speeth: The Gurdjieff Work

A SAMPLE OF OTHER WORK ON THE FOURTH WAY

Kathryn Speeth's overview of Fourth Way ideas, The Gurdjieff Work, presents a remarkably accurate treatment of topics presented in the original Fourth Way literature.[3] It is mentioned here to first remind the reader that not all material need be extracted from the books by Ouspensky and Gurdjieff, although there are certain widely accepted advantages to the decision to take Fourth Way information from its sources. Speeth's book is written in an easy to understand form, replete with numerous drawings and charts. If all the people in the world who knew about The Fourth Way were gathered together, most of them would probably have read Speeth's book or one like it. The second interesting reason to include it here is that it contains Speeth's original and somewhat independent idea about the nature of centers. At the counter point, compared to Speeth's book, Gurdjieff's Beelzebub's Tales to His Grandson is deeply engaging to its

[2] Ouspensky, P. The Psychology of Man's Possible Evolution. *Lecture Held Thursday, 23 September 1937*. Page 118.

[3] Speeth, K. The Gurdjieff Work. All references to Speeth's work are found in this book.

reader both with respect to its astounding content and to its deeply allegorical presentation. Life changes around the third reading of Beelzebub.

## THE FUNCTION OF CENTRES

| *Part of Center* | *MOVING* | *EMOTIONAL* | *INTELLECTUAL* |
|---|---|---|---|
| MOVING CENTRE | Automatic reflexes<br>Imitation on a small scale<br>Limited adaptability to learning new movements | Pleasure in movement<br>Normal love of games<br>Higher imitation; some forms of acting | Inventing things and machines<br>making adaptations |
| INSTINCTIVE CENTRE | Pleasant sensations<br>Unpleasant sensations | Blind animal love<br>"Instinctive" love<br>Animal jealousy<br>Animal rage: desire to kill | Many so-called intuitions |
| SEX CENTRE | Sexual sensations (can only be pleasant or neutral) | Sexual attraction and gratification or frustration feelings | Assumptions about sex<br>Perceptions of sex |
| EMOTIONAL CENTRE | Mechanical expression of emotions<br>All emotions relating to one's likes and dislikes: personal emotions<br>Small desires: little daily "wills" | Religious emotions<br>Aesthetic emotions<br>Moral emotions: may lead to conscience | Artistic creation<br>Chief seat of magnetic centre |
| INTELLECTUAL CENTRE | Repetition of words and phrases: mechanical talking<br>Inquisitiveness; curiosity<br>Shrewdness; craftiness | Desire to know and understand, search for knowledge; higher kinds of imagination | Intellectual construction<br>Creative thought<br>Discovery |

*[Table courtesy of transcription by M. Hillard, student]*

This concept as it describes the work of centers runs in a different line from those included in the beginning of this paper although they are generally consistent with Mr. Gurdjieff's teaching. Speeth's material, while appealing to students seeking definition of the system, betrays a certain whimsical understanding of center thought processes with questionable applicability. Although her approach may seem somewhat unsettling, it may well prove to be both exciting and educational when one allows it free reign.

The important foundation of the centers is the argument that they are complete, that is, that they encompass the complete range of thought work in a human. To demonstrate this to yourself, consider the following exercise.

The description of the five primary centers seems reasonable enough, yet one must remember that it was Mr. Gurdjieff's view that these five functions -- the intellectual, moving, emotional, instinctive and sexual constituted the full range of variety for efforts of thought -- i.e. work. Test this idea to see if such a position is in any way arbitrary or subjective. Is this list complete and sufficient? Select a thought work candidate for a sixth center (not to be confused with the higher centers) which performs some type of thought-work excluded from these. In other words, find an additional center which is required to perform thought-work which humans must accomplish which will not be serviced by Gurdjieff's primary five.

Next, select from the "Function of Centres" Table above, one primary and sub-primary center such as **Im, Ee** or **Sm.** Think carefully to see if you can determine important thought-work which must be accomplished by this center/sub-center which is not mentioned in the table. Also consider whether your idea of personal thought-work is more critical to the organism's functioning than those selected by Speeth for inclusion in her chart.

A favorite conflict for the student is in the apparent variance in the description of centers in Beelzebub's Tales to His Grandson, the lectures reported in In Search of the Miraculous and the work of other authors who have been associated with the work (Speeth and many more). In Beelzebub the idea of centers for "those three brained beings" is included in the discussion of Threefoldness, leading the energetic student to the assumption that the Law of Threefoldness governs the design of human minds.

## CENTERS AND BEELZEBUB

### THE VIEW FROM OUTER SPACE -- MAN AS A THREE CENTERED BEING.

> "Three brained beings have the possibility personally to perfect themselves, because in them there are localized three centers of their common presence or three brains, upon which afterwards, when the process of Djartklom proceeds in the Omnipresent Okidanokh, the three holy forces of the sacred Triamazikamno are deposited and acquire the possibility for their further, this time, independent actualizings."
>
> "It is interesting to note that the said being-brains are found in the same parts of the planetary body of these three-brained beings who arise on the planet Earth as in us, namely:
>
> 1. The brain predetermined by Great Nature for the concentration and further actualizing of the first holy force of the sacred Triamazikamno, called the Holy Affirming is

localized and found in the head.

2. The second brain, which transforms and crystallizes the second holy force of the sacred Triamazikamno, namely, the Holy Denying, is placed in their common presences, also as in us, along the whole of their back in what is called the 'spinal column.'

3. But as regards the place of concentration and source for the further manifestation of the third holy force of the sacred Triamazikamno, namely, the Holy Reconciling – the exterior form of this being-brain bears no resemblance whatever to ours."[4]

Later, on Saturn, while surviving Gornahoor Harharkh's experiment, Beelzebub describes himself as a three centered being and notes the nature of the centers.

"In all my three 'being-centers' – namely, in the three centers localized in the presence of every three-centered being, and which exist under the names 'Thinking,' 'Feeling,' and 'Moving' centers ..."[5]

As Ouspensky reports lectures given by Mr. Gurdjieff in 1915, he notes the "growing" number of centers as a disconcerting inconsistency in Mr. Gurdjieff's model.

"On the first occasion he spoke of *three centers*, the intellectual, the emotional and the moving, and tried to make us distinguish between these functions, find examples, and so on. Afterwards, the instinctive center was added as an independent and self-supporting machine. Afterwards, the sex center.

I remember his words.

"It is a very big thing when the sex center works with its own energy, but it happens very seldom."

I recollect another remark which afterwards proved a ground for much wrong reasoning and many wrong conclusions. This was that the three centers of the lower story: the instinctive, the moving and the sex centers, work in relation to each other, in the order of the *three forces* – and that the sex center, in normal cases, acts as the neutralizing force in relation to the instinctive and moving centers acting as active and passive forces.

The method of exposition of which I am speaking and G.'s suppressions in his first talks, resulted in the creation of much misunderstanding, more particularly in later groups not connected to my work.

Many people found contradiction between the first exposition of a given idea and subsequent explanations and, sometimes, in trying to hold as closely as possible to the first, they created fantastic theories having no relation to what G. actually said. Thus the

[4] Gurdjieff, G. Beelzebub's Tales to His Grandson. Book One. Page 145.

[5] Gurdjieff, G. Beelzebub's Tales to His Grandson. Book One. Page 163.

> idea of *three centers* was retained by certain groups (which, I repeat, were not connected with me). And this idea was, in some way, linked up with the idea of *three forces,* with which in reality it had no connection, first of all because there are not three centers but five in the ordinary man.
>
> This uniting of two ideas of an entirely different order, scale and significance gave rise to many further misunderstandings and completely distorted the whole system for those who thought in this manner."[6]

Be reassured. This mischief, while interesting and illuminating, will cause no degrading effect on our study. Gurdjieff's account of the centers is compelling and accurate. The illumination, of whatever value, mentioned above here serves to reveal the nature of the man, not the quality of the idea.

Ouspensky's account of this lecture also includes important ideas concerning the division of centers into three stories each and direct mention of the necessity of understanding this in the recording of attention. Attributing the origin of both of these concepts with Mr. Gurdjieff is made tenuous by Ouspensky's "excitement crushing" appetite for exact definitions and clarity. It is very possible that this unfortunate divergence of ideas unfolded after the two men parted company or were preparing to.

This discussion is included here because the discipline of recording attention is based on understanding the functions of centers. Further, recording attention must, as shown by experience, be done quickly, accurately and at the highest resolution possible. This means that the greatest benefits are to be had from recording attention among all fifteen of the parts of the five primary centers (i.e. **Ii Im Ie Mi Mm Me Ei Em Ee INi INm INe Si Sm Se**).

Regardless of the origin of this idea, experience shows it to be effective and necessary. School experience further suggests that a far more reasoned analysis than those offered by Ouspensky or authors such as Speeth in the allocation of thought-work to each on these specific centers is needed. The symbolic division of thought-work must include a center of association for any thought the student may be having during his recording of attention.[7]

Finally, the resolution of thoughts as detected in the recording of attention needs to be far finer than those of Speeth in The Gurdjieff Work or Ouspensky in his Psychology of Man's Possible Evolution. " . . .the love of sport and games . . ." and " . . .animal jealousy . . . " are interesting notes of thought-work to be associated with centers, but each is far too broad to relate to a specific activity of a center. Additionally, neither is a state of thought-work encountered frequently

[6] Ouspensky, P. In Search of the Miraculous. Chapter 3. Page 55.

[7] See More About Centers, a paper in this series.

by students in this school. It is essential for a student seeking Consciousness to build his own well defined understanding of what work is done by which of his centers, how that activity appears in his visualization of his field of attention and the proper center to associate with thought-work he observes in himself during the right work of centers. A final note responds to our "thinking center" culture where we worship with goose flesh all the fabulous things thinking centers seem to have accomplished. The centers are absolutely equal (not including the higher centers, of course), and in a balanced man each will be active about the same amount of time. One great revelation of recording attention, when done properly, is that *we are not our intellectual center*. Its work proceeds in its correct type of task in thought-work. Every student who reaches the development required for self-observation and the recording of attention is surprised and relieved by the amount of activity in each of his centers as he comes to respect the complexity and efficiency of himself as an organism.

For the work of recording attention and self-observation and for the basis of understanding the structure of this part of the organism, the concept of five centers will be used. Each of the five centers will be divided into three parts. The functions of these fifteen discrete parts will be described as much as possible by the text which can be directly attributed to Mr. Gurdjieff and Ouspensky in that this material originated as close to the source as any available to us. The student will have the conscious aim of enhancing the descriptions of these discrete functions and will accomplish this task using his own initiative, his own capacity for modeling and mapping, his own confidence in himself, his ability and desire for recording attention and his own willingness to take this risk as it arises from the necessity of resolving the concept generally.

Before any discussion of possible solutions to this dilemma a review of the problem may be in order. Wrong work of centers, identification, false personality and what may be called interlopers of identity with the false illusion of continuity represent much of the resistance to Consciousness we encounter.

## FALSE PERSONALITY & OTHER BARNYARD DEMONS

PESTS, BAD HABITS, PERSONALITY AND REAL DANGER.

Discussions by both Mr. Gurdjieff and Ouspensky mention the duality or sides of the organism which grow along with each other in a state of balance or imbalance. *Being and understanding* are resultant substances. They are products of life impressions, and they proceed in a living organism.

*Essence and personality* are formative substances, that is, they are formations which are present in a living organism. *Being, understanding and knowledge*

can manifest their presence through *essence and personality.* Personality rightfully exists as the manifestation of life experiences which have been translated correctly into memory as a result of the right work of centers. *False personality* is nothing similar to *personality*. It is composed of minor *I's*, many of which are in conflict with one another. Larger or more complex groups of these minor *I's*, incompetent together or singly, are called *interlopers*.

The following are a few representative excerpts from the discussion of false personality in Ouspensky's The Fourth Way. The entire discussion of false personality, the myriad *I's*, the deputy and full stewards must be read and understood on the path to awareness. Efforts made in recording attention will be seriously undercut by a lack of understanding of the nature and methods of interlopers and false personality.

> Q. "In considering likes and dislikes, how can one separate what is real and what is false personality?"
>
> A. "You must understand that false personality is one, it does not consist of different personalities; but at the same time it contains contradictory and incompatible features, features that cannot manifest themselves at the same time. So it does not mean that you can see the whole of your false personality at one moment. Sometimes you can see more of it, at other times certain features manifest themselves separately.
>
> Also it must be remembered that false personality is often rather attractive or amusing, particularly for other people who live in their false personalities. So when you begin to lose your false personality, when you begin to struggle with it, people will not like you. They will tell you that you have become dull."

The incompatible elements of the false personality described by Ouspensky are interlopers.

> Q. "How can one tell what is *not* false personality?"
>
> A. One thing false personality cannot do is make efforts. This is the easiest way to know if you are in doubt. False personality always tries to make everything as easy as possible, always chooses what requires the least effort. But you must learn that you cannot learn anything or change anything without effort. So when you find an 'I' or a group of 'I's' which are ready to make efforts, it means that they do not belong to false personality."[8]
>
> Q. "What is the origin of these artificial groups of 'I's'?"
>
> A. "They may be formed by imitation, desire to be original, to be attractive, to be admired by people and so on."

[8] Ouspensky, P. The Fourth Way. Chapter VII. Page 169.

Q. "Do all negative emotions spring from false personality?"

A. How could it be otherwise? It is, so to speak, a special organ for negative emotions, for displaying, enjoying and producing them. You remember that there is no real centre for negative emotions. False personality acts as a centre for them."

Q. "Is identification always a manifestation of false personality?"

A. "False personality cannot manifest itself without identification, the same as negative emotions and many other things in us, such as all lying, all imagination. One identifies, first of all, with one's imaginary idea of oneself. One says "this is I" when it is nothing but imagination. It is the same with lying – one cannot lie without identification; it would be very poor lying and no one would believe it. So it means that first one must deceive oneself, then one can deceive other people.

Study of false personality is one the quickest methods for self-remembering. The more you understand your false personality, the more you will remember yourself. What prevents self-remembering is, first of all, false personality. It cannot and does not wish to remember itself, and does not wish to let any other personality remember. It tries in every possible way to stop self-remembering, takes some form of sleep and calls it self-remembering. Then it is quite happy.

You must not trust your false personality – its ideas, its words, its actions. You cannot destroy it, but you can make it passive for some time and then, little by little, you can make it weaker."[9]

As with all living organisms, what serves as our "consciousness" is in a state of constantly forgetting itself. The experiences of life are actually captured by our experiential senses, modeled and made robust by the memory and reality processing systems, and finally "presented" to "us" at which point we usually forget all this apparatus, identify with it and imagine ourselves to be right in the thick of things. In fact, we are sitting at a desk far behind the action, interpreting reality as it is presented to us by our organism. The obstacle to our consciousness is that not all or even some of the "players" involved in getting the information to our desk do their jobs very well. Some are lazy. Some are frightened. Most of them have agendas which can be served by introducing a bias into their reports. Many are outright pathological liars.

How can one ever detect and begin to correct these errors and misrepresentations? Sitting at the desk, we have received mountains of such reports and we have filed them away in big cabinets labeled "REALITY." If we wish to start catching these erroneous data as they arrive, we must search through the file cabinets in the hope that we will find clues that "this bit or that bit" has been tampered with in the time between the experience and its arrival at our desk.

[9] Ouspensky, P. The Fourth Way. Chapter VII. Page 174.

Unhappily, the information in the file cabinets is corrupted in the same way as the next report we receive. We are filled with despair when we realize that we know nothing at all of reality and that we cannot trust a single word of the information we are receiving. Further, its seems that there is little we can do about disciplining the "reporters" who continue to gleefully steal into our office with a scraping gait and sheepish smile to add yet another layer to the pile of what, we now suspect, is worthless rubbish.

We need a solution to a task which, it seems, is intractable. There is a solution, and it is an esoteric solution. The system of self-observation and self-remembering can, when practiced diligently, allow us to "fire" all the helpers and assume all duties of consciousness ourselves. As the "executive" of this organization, we are fully capable of this task.

Mr. Gurdjieff calls Consciousness access to all thoughts; Conscience access to all feelings. Access to all thoughts will run concurrent to access to all memory. To experience reality based on the "open model" of memory, that is, with access to all memory, greatly assists a man to breakthrough to esoteric understanding. This is an explanation of one dimension of a thing with very many dimensions.

## BRAINS

### TAKING A LOOK AT WHAT WE'VE GOT

The brain of every successful organism models the environment of the organism with sufficient accuracy to provide the decisions necessary for its life. This is true of every living organism from the most primitive protozoan to the most complex. This is true of plants and it is true of microorganisms such as bacteria. It prevails in brave Annelida (earthworm), but it doesn't mean that every robin isn't a surprise!

If this part of the human organism functioned perfectly, every human would be Conscious. However, even the idea of perfection of this system in a human organism betrays its lack of proper functioning. The idea of a system operating perfectly as it receives impressions from the world appears to us as an *intellectual center* performing without bias. As usual, our idea of a mind which is not "playing tricks on us" seems to be defined by a purposeful and accurate *thinking center*. Being rid of this is the first of many hurdles.

To those seeking Consciousness, a new and objective understanding of the centers and a functional and comprehensive model of the apparatus of thought must become fully integrated into the identity. Both must become deeply held points of reference which are constantly used in self-observation.

Referring to Diagram 8(page 28) the general process of human thought can be described, in summary, by examining the components shown and the flow of information between them.

The sense organs (1) are generally those physical parts of the organism associated the registration of the exterior world. Although an infant may need to mature for a few days before enjoying accurate vision, no learning is involved, hence, the sense organs are included with the Instinctive Center.

In fact, all the components of the brain as modeled in these symbols are associated with the Instinctive Center. No child is ever taught to remember or recall, these functions are Instinctive Center operating routines which were in place at birth. What has been added since birth is the intangible. The contents of memory, its organization around "topics" and its incredible system of forward addressing (for good or not) are all edifices of the organism's life They were built up through the sensations of a lifetime. This may be what P. Ouspensky meant when he spoke of the intellectual part of the Instinctive Center. "The intellectual part of the instinctive center is the mind behind all the work of the organism, a mind quite different from the intellectual mind."[10] The hardware and processes of the RMS, RPC, the Conceptual Symbolizer and HCMem are clearly parts of the intellectual function of the Instinctive Center, **INi.**

The Experiential Sensation System (ESS -2) serves as a "wire center" between the sense organs and the Reality Processing Center. It labels the origin of sensations, keeps track of rapidly occurring sensations and operates its dedicated area adjacent to the Reality Processing Center (RPC -3).

The dedicated area of the ESS (9) in the RPC is subject to **Im** review immediately upon the arrival of sense organ data. **Im** looks at incoming external impressions in what may be called an alert command. The types of threats detected here by **Im** can be anything from a dish falling off the table to an animal approaching rapidly in attack.[11]

When a perceived threat is detected at this stage, the isolated data is sent directly to the Resonant Memory System (RMS -4) for immediate modeling and response. For instance, during an auto wreck or a dog bite it is often the case that one sees only the approaching car or dog. "Gosh! All I could see was her fender heading toward me!" This is because data previously in the RPC has been cleared and replaced with the threat model and the response to it. "I forgot all about getting to Linda's party on time!"

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[10] Ouspensky, P. The Psychology of Man's Possible Evolution. Fifth Lecture. Page 109.

[11] See **Im** System, a paper in this series.

In more routine conditions, the ESS data resident in the RPC (Try to get comfortable with our new language of abbreviations. Without them, this paper would be 4,000 pages long.) is now overlaid into the memory system. We call this amazing ability of "What is this?" *self-selection*. All elements of the RMS which match to elements of the ESS model *resonate*. In the Resonant Memory System, RMS, the resonating memory cell is manifesting *self-selection* when it resonates![12] Each resonating match associates some part of the ESS data with one or more cells already existing in the RMS.

The RMS now sets into action (See Diagram 9, page 30). Starting with each matched cell, forward addresses are traced out, cell to cell. The cells of the RMS which have resonated with elements of the ESS sensation provide *entry points* for the memory process. Although only a few cells might resonate, the full memory module now returned to the RPC contains a very large number. The existing forward address connections of cells in the RMS provide this large number of associated memory cells almost instantly.

The cells which are accessed by forward address are added to the memory "module" (5) which is returned to the RPC, along with of course, the ESS data representing the original sensation. At some point, as continuing forward addresses have lower and lower priority ties, that is when the *strength of association* falls below a certain criteria, the process stops. At this point the cells included in the "module" are constituted primarily of encyclopedic data of sensory memory.

All of the memory cells in all the components of the brain are structured into a hierarchy based on the number of links (forward addresses) each has to all other cells. The lower end of the hierarchy contains memory cells with fewer forward address. The higher end is constituted by cells with greatly larger numbers of forward addresses.

RMS cells of the "what is it?" area are at the lower end of the structured hierarchy with generally fewer forward addresses. These memories have been stored with associations generated within models as they were processed. In other words, at the point when memory was "updated" these particular memories were connected in some way and were referenced to each other by merit of having been in the same model. They are also referenced to other memories already existing in the RMS which were considered or used in the construction of the model which created the memories in question.

The cells in low RMS tend toward a nature of being *encyclopedic*, that is, they generally contain information about things and events. They are associated

[12] Highly connected memory, HCMem, also self-selects as it matches centers to corresponding areas of the model in the Reality Process Center. This is discussed later.

with other cells containing information which can be applied to model making in the RPC. They have been stored away as memory and organized this way so that retrieved memory will come in blocks of associated cells and the models created in the RPC will be robust, containing most or all of the information available (and relevant) for the model.

Note two important ideas about this RMS operation. First, the number of connections stored with memory depends on the size and relevance of the model in the RPC. One man might see the connectedness of his experiences in a very limited way. This man will construct smaller, more Spartan models as he greets reality in his RPC. Another man might see tremendously greater connectedness and, consequently, construct far more elaborate models as he greets reality. The more perceived connectedness, the more accurate the model may be and the more successful the organism will tend to be in its interface with reality outside its body.

The second idea is that not all memories are connected to each other with links of the same strength. The more essential the association, the stronger the forward address chain will be as it is formed in the associative memory collection with this model. There will be weak forward addresses and strong ones. When memory is searched, the search will include a lower limit such that forward addresses with a *strength of association* lower than this limit will not be included for consideration in the model. This can be considered "memory filtering." The effect of memory filtering can be a benefit or a liability. As a benefit it limits the inclusion of data in the model which is not highly relevant, thus limiting the model size to workable proportions. As a liability the filtering can exclude some idea which is not linked strongly but which could have been useful in the model creation. If such an exclusion occurs, it will have been the result of wrong use of centers in the model process, and subsequently, in the memory "refreshment" which occurs after the model has served its purpose. The wrong use of centers will have caused it to be stored illogically with respect to the entire event, yet quite appropriately with respect to the construct of centers malfunctioning during the model process.

The highest end of the RMS hierarchy is held by memory cells which enjoy the highest numbers of forward addresses and interconnectivity. These "top end" cells have reached this lofty state by accumulating forward addresses in just the process described above. However, it must be remembered that in order to get more forward addresses, a cell must be matched and called into a model. Consequently, cells that are called to the model quite often -- or even called continuously -- through a lifetime of "thinking" will accumulate a connection set to a gigantic numbers of other cells. It is these cells which we refer to as Highly Connected Memory, or HCMem.

Please note, however, that a memory cell can have any number of forward addresses. Some probably have only one, others tens of thousands. The hierarchy of connectedness is not a rigid caste system, but rather a smooth continuum where any level of connectivity can be found when all are considered. Further, the larger population of these cells has high connectivity. It is also reasonable to assume that there is some upper limit of forward addresses imposed by human physiology, but that topic is not essential here.

These cells of HCMem exploit their popularity and power by gradually altering their forward addresses to lesser cells by the system of cross referential hierarchy, CRH, creating asymmetrical links with low strength of association in forward address vectors flowing out of them but higher strength of association vectors flowing into them from elements of the RMS. The forward addresses between these HCMem cells and others with comparable status in the hierarchy is generally even going either direction, symmetrical.

HCMem cells are the elements of the centers in a man.

Many of the memory cells accessed in the RMS also have forward address connections to the Highly Connected Memory (HCMem - 8) where the main operating system of the organism is resident.

Here a small digression to computer architecture is indicated. In any computer a resident operating system is present during all the tasks the computer may perform. In the operating system are instructions for the computer to do all the things more or less taken for granted as it is used. Examples of operating system tasks are the operation of the monitor, the printer, the keyboard, storing and retrieving data and programs and executing programs.

The operating system in a human organism handles tasks which are quite dissimilar, yet parallel in the respect that they are repeated very often and that they are central to be the basic minute by minute operations of the human machine. The five functions as represented in the definitions of the centers are areas of activity which are constantly functioning within the human operating system.

Why do these functional areas fall into Highly Connected Memory?

In the complete cycle of model creation and manipulation it is important to look at the linkages between memories separately. The ESS package arrives in a linked state -- all elements of it hold forward addresses to all other elements by merit of having been experienced together. The returned “module” from the

RMS is generally far larger than the ESS package. In it, various memory cells are linked to matching elements in the RPC, but not all elements of the returned module are linked to all elements of the ESS package, rather strings of linked cells returned from the RMS are linked to *specific* cells in the ESS package.

Certain elements of the returned RMS module are also forward addressed to cells in the HCMem, and these HCMem cells are thus added to the RPC model. Because the HCMem represents the operating system for the organism, a very large amount of it is called into every model in the RPC. It is these cells which carry the desire/fear motivation parameters for model manipulation. The contents of HCMem are called into model after model in large quantities and are called often because they represent the five basic things that the organism will do whether the model is about making love, sinking on a ship, getting bit by a dog, reading a history book or whatever.

Conceptually, at the end of the processing of the model, all the memories in the RPC are either added, if they are new, or "refreshed" in memory. This "refreshment" amounts to updating the forward addresses which were generated during the process of handling this specific model. It may be assumed that all of the model's memories from either the RMS or the HCMem will have additional forward addresses at the end of the process.

When this process is complete, in other words when the organism has analyzed the model, evaluated fears and opportunities and developed and executed its strategy, the RPC package along with the ESS data that initiated it and the new information from model processing is once again overlaid in the RMS (and, consequently, also associated by the forward address structure into the HCMem). The result of this is that the entry point cells and many of the associated cells are now forward addressed to information which originated in the model. There are some new memory cells, but there are a *great number* of new forward addresses connecting the preexisting information to other preexisting information and to the new information. These proliferating forward addresses constitute the essence of the legacy of a human life. They reflect the details of the *effort* which has been expended; the contents of the memory cells appear more as a road map, recording *where* the effort has been expended.

These memory cells which have just increased their interconnectedness in the above process have moved "up" the structural hierarchy. The organism which houses these components has enhanced its model making capability by increasing the degree of forward addressing in its RMS, thereby making it more capable of generating higher grade models in its RPC, even though the actual change has occurred in and resides in its RMS (and HCMem). It has gained *experience* about how to handle something (in this case the next ESS event), and this expe-

rience is now built into new forward addresses in the operating system in HCMem.

To summarize the result of these actions in memory:

a. Some new memories have been added from the ESS data which initiated the model. They will be stored in forward addressed strings like all the preexisting memories in the RMS. The net result is memory cells with new data in them and new forward address linkage between the newly filled memory cells.

b. New forward address linkage has been created between the new memory cells from the ESS package and the memory returned from the RMS after the matching search. During processing the model in the RPC these two groups of memories have become associated. Further, it is often the case that new forward addresses are created between memory cells which preexisted in the RMS without linkage, but which are now linked due to having been included in the same model.

c. HCMem cells, already richly interlinked, have many of the elements of the model just processed linked to them via forward addresses. HCMem cells are heavily connected to the strings of cells in the RMS, but these connections are of the nature of the Cross Referential Hierarchy rather than simple forward addressing. If this were not the case, the very frequently called data in the operating system would be constantly dragging out irrelevant data from the RMS. The CRH allows HCMem to be called from RMS cells, but shields RMS from being called by HCMem cells.

The process of involving the HCMem area in the RPC model is an important one. Remember that HCMem has the memory to handle just about everything that might get modeled in the RPC -- in other words, about everything the organism could reasonably encounter in its lifetime.

When the ESS data is augmented through the process in the RMS, the result is primarily identification. By this term (not in italics) we mean answering the question, "What is it?" This is the purpose of the *encyclopedic nature* of the RMS contents. What is built up in the RPC with the addition of this recalled resonant memory augments the ESS data by providing all relevant experience and associating it to the work of creating a model to represent the sensation. The organization of this process is exquisite, accurate and very fast; the recalled RMS memory arrives prepackaged due to its forward addresses and is already aligned with the sensation model which triggered its selection.

As reality is experienced via the ESS it is modeled with respect to all strongly linked associated memories. The model is executed as a working program leading to some type of action (not necessarily "doing" something) in the organism. The process of model formation and model augmentation (fine tuning) is iterative -- it occurs with repeated trips to the RMS, additional analysis, discarding some unusable memory, replacing it with other memory until the model can be experimented with by attention via the centers. During this process HCMem is

called, it in turn calls more RMS which in turn calls more HCMem and so on.

When the model gradually becomes more accurate, a state which can be tested logically by the centers present, it offers a transactional proving field to the HCMem. This is to say, that within the perfected model, different responses considered by the organism can be run on a trial basis, producing results which can be further tested as desirable or undesirable. The direction of the experimentation is set by *goals and fears*. It does not matter which manifests itself from the emotional aspect of the centers involved as *the two substances are completely interchangeable.*

When action is selected and executed, the entire event is stored in memory including the initial impression, the results of model analysis and the results of the action. Further, this memory is fully integrated into the same memory area where the modeling data was stored previous to the start of considering the current ESS event thus increasing that module's size. The next time an entry point opens this module the returned memory will be larger. The organism will have gained *experience*.

Almost all entry points in RMS memory are fear (threat) based. Memory cells filled with fear are the landmarks of even the most complex memory retrieval. The great example offered by Gurdjieff as an exception to this might be something such as the attraction one feels toward *Partdolg-duty* being duties, that is, impulses directed to *conscious labors and intentional suffering*.[13] The motivational entry points for them are *attractive* as opposed to fear entry points which are *repulsive*.

Interlopers to the identity of the organism are centered on fear entry points. As one looks back on an interloper he has successfully dislodged, it may appear to have been "goal attracted" instead of "fear repulsed," but it must be borne in mind that the two substances are fully interchangeable. The life's blood of such an interloper will be *identification* with the ambition of denying RPC access to the origin of the fear.

The concept of Cross Referential Hierarchy (CRH) in memory has to do with an alternate filtering dimension from the self-limiting strength of association filtering mentioned above. The nature of the CRH link is itself not too important, but it would normally be a strong forward address when seen from the cell with fewer links and a weaker forward address when seen from the cell with more links (RMS will see its link to HCMem as strong, but HCMem will see its link to RMS as weak). HCMem is *designed* to service all encyclopedic memory without condition.

[13] Gurdjieff, George. Beelzebub's Tales to His Grandson. Chapter 28. (Destruction of Labors of Ashiata Shiemash). Page 409.

CRH is in some ways similar to strength of association filtering with the important exception that it is asymmetrical. This means that the strength of the CRH tie is dependent on the direction in which the tie is examined. It especially allows the RMS and HCMem to hold memories which are associated at different strengths depending on which direction the link is sensed. The mechanism of CRH linkage is unclear. It may be caused physically in some way by the HCMem cell, but more likely there is some means for the HCMem cell to "look" at the RMS target with a highly exclusive criteria of the lower limit *strength of association* requirement, thus preventing the connection. HCMem cells seem to be able to change this limit criteria when necessary.

In an example with two memory cells A and B, the following might be true. A has been included in linked memory, but A's association with B is not strong enough to allow B to be included. Later, however, B is included in a linked memory and B's link to A is strong enough to include A in the string.

To this point we have described a robot which can identify things it encounters. As mentioned above, all these processes have occurred in mechanical systems which belong to the Instinctive Center. This part of a mind is completely capable of this process at the time of birth.

However, not every memory flooding into the RPC has come from the ESS or the RMS. The memories of the selected RMS module also carry forward addresses to the HCMem.

HCMem should be considered the realm of hazard management and opportunity exploration, that is, *goals and fears*.

The individual cells of memory which have been retrieved from the RMS in the process are linked by forward addresses or CRH to elements of the HCMem, in fact they are connected to elements of the HCMem which are within the regions of centers. Since the connection itself is under the mode of Cross Referential Hierarchy, the HCMem cell has a resistant link to the cell in the RMS, while the RMS cell has a strong association with the cell in HCMem.

If this were not the case, the HCMem cell, which is called very often into RPC modeling, would always drag very great numbers of associated cells in RMS in with it, even if the RMS cells had nothing to do with the model being made. Consider how many models a typical HCMem cell may have been involved with through a lifetime. Each time it would have accumulated even more RMS cells by linkage.

For example, if the HCMem cell (and its HCMem associates) dealt with say being polite (external considering) it might need to appear in a model constructed to deal with Mrs. Smith at a tea party. Its previous use in a model to deal with the irate butcher would load unusable RMS memory into the Mrs. Smith model -- actually, a tremendous amount of RMS memory from every conceivable experience. The HCMem must be able to be loaded into the model based specifically on the model's purpose, not as a rambling account of every time politeness was ever expressed or desired.

Recall that the reason HCMem is called HCMem is because of its extremely dense interconnectedness. If a match in the RMS involves a hundred additional cells via forward addressing, a match in HCMem might well involve ten thousand additional cells of HCMem. The contents of any given model in the RPC will be predominately HCMem. It will contain the instructions which will be used to greet reality as it is presented by the ESS and augmented into a robust model with the help of the RMS and, of course, the RPC.

Which cells of the HCMem will be addressed?

HCMem is generally divided in centers. Each center is dedicated to a certain area of the organism's activity. Further, the instruction sets resident in each of the centers should, when centers do right work, enter into RPC models when ESS/RMS information requires a response from that center.

> "Returning to the wrong work of centers, I must say that this fills up practically all of our life. Our dull impressions, our vague impressions, our lack of impressions, our slow understanding of many things, very often our identifying, even *our lying*, all these depend on the wrong work of centers.
>
> The idea of the wrong work of centers does not enter into our ordinary thinking and ordinary knowledge, and we do not realize how much harm it does to us, how much energy we spend unnecessarily in this way, and the difficulties into which this wrong work of centers leads us.
>
> Insufficient understanding of the wrong work of our machine is usually connected with the false notion of our unity. When we understand how much divided we are in ourselves, we begin to realize the danger that can lie in the fact that one part of ourselves works instead of another part, without our knowing it.
>
> In the way of self-study and self-observation it is necessary to study and observe not only the right work of centers, but also the wrong work of centers. It is necessary to know all kinds of wrong work and the particular features of the wrong work belonging to particular individuals. It is impossible to know oneself without knowing one's defects and wrong features. And, in addition to general defects belonging to everyone, each of us

> has his own particular defects belonging only to himself, and they also have to be studied at the right time."[14]

We have studied the work of the centers and we have noted that often centers do not function within their own domain, often attempting the do the work of other centers. When elements of the centers are called into RPC models based solely upon the chance of having a historic forward address from some RMS cell, what has happened is that the same wrong work of centers which was proceeding during the storage of a previous model is initiated once again. Not only is it activated again, but another set of forward addresses are being generated which will make this incorrect association and the subsequent wrong use of centers even more likely to occur again in the future. Each time it occurs in the future the association will become stronger and its subsequent association in yet another future model will become more inevitable. Each repetition puts more links into place. This error's ability to strengthen itself as if it had a life of its own falls under what is called *the law of accidents*. This is the condition which allows wrong work of centers to prevail and flourish against all apparent logic.

## INTERLOPERS

### BRAIN SYSTEM "BAD GUYS" MAKE HEAD LICE LOOK LIKE ROBIN HOOD

We must examine what else happens in the HCMem under the above scenario. In a manner parallel to that described just above, the HCMem entry point addressed by the RPC-bound RMS cell follows its own myriad of forward addresses, mostly to destinations in the HCMem. This calls out a block of linked HCMem cells predominately in the same center as the called cell, but certainly also in the HCMem associated with parts of other centers.

The contents of the HCMem entering into the RPC model area have found entry when RMS cells which were called, in turn, called cells from the HCMem. This HCMem activity is *attention*. The cells in this HCMem block are ready to "do" something as opposed to the cells in the RMS portion of the model which represent generally simple information. Similar to RMS cells, these HCMem cells have forward addresses to their "favorite" (most often called with) associates in the HCMem centers.

This large module of HCMem cells representing parts of one or more centers consequently develops even more forward addresses between them making it, unfortunately, all the more secure and likely that they will constitute the full, yet incomplete, presence of the centers in the model. Further, since they make their appearance as a group of partial centers, incorrectly selected through this process, they can become an interloper. It can now say "I am the representative

[14] Ouspensky. P. The Psychology of Man's Possible Evolution. Third Lecture. Page 61.

of attention here!" This helter-skelter collection of HCMem will then elect to reside in the Operating Entity and will act as if it were the legitimately constituted "Permanent I." In fact it may well be both inappropriate and incompetent.

This huge, ready made (thanks to its dense forward address network) block of HCMem/center cells becomes more set together *each time it is called to a model*. If an RMS cell calls the block through one entry point, the whole thing lunges into action. If another RMS cell calls to a different entry point in the block, the same network loads the same block of HCMem/center cells again. Soon this renegade block is the single response of the centers to a large number of RMS triggers, regardless of what they may be, and an interloper has formed. Every time the block loads, additional ties are created through forward addresses making it more likely to load again in the future, increasing the connectivity existing between the HCMem cells and making the "block" all the more solid ( e.g. all the less likely to function properly and call the right centers to their tasks.)

Multiply this sequence of events by a very large number and the explanation of the gravity of interlopers is clear. Logical paradoxes (and appliances such as buffers) can now be maintained. In normal center functions, paradoxes must be resolved. They cannot be tolerated in functional modeling which is designed to exist as dynamic, isomorphic mapping with perceived reality.

The forward address association between the RMS data and HCMem is called *identification*. This means that a cell of RMS filled with some sort of information has been stored in such a way as to allow it to select what part of the crystallized programming in the centers will process it, analyze it, explore it for opportunities and danger and direct the response of the organism to it. The system becomes driven and directed from below. The lower echelons of the hierarchy of cells finds itself empowered to call only certain parts of the higher echelons -- the centers (HCMem) into the model under construction. The HCMem in the centers becomes a willing participant by having the "home boys" associated with this initial entry point already closely linked by forward addresses. We begin with an error in RMS and compound it with a error in the HCMem (centers). The longer this goes on, the more "competent" it seems to become.

The phenomenon of the "growing competence" of interlopers is explained with the gradual accumulation of additional strings of HCMem as different models are handled by the same interloper. When interlopers first appear, they are often shy and timid, uncertain about the safety of their existence. But as time goes along with the interloper in place, handling every RPC model which comes up, an occasional RMS reference link calls another additional string into the block, making it slightly more and more fluent in situations.

Although "the rough edges" more or less disappear, the interloper is processing reality without a full complement of centers. It generally excludes from itself some part of the HCMem which had previously been involved in a fearful or paradoxical RPC model analysis. It is while encountering this kind of experience that the interloper will reveal itself through its complete incompetence -- it has no option but to employ the partial centers it has within it in *wrong work*.

A man operating under an interloper loses his normal access to portions of his five general capacities, the very things which are the *foundation* of his being a man, at least a man in the mechanical sense.

Gurdjieff described the correct working of this system thus:

> "Consciousness is a state in which a man knows all at once everything that he in general knows and in which he can see how little he does know and how many contradictions there are in what he knows"[15]

During the proper functioning of the system the ESS/RMS model is constructed in the RPC in the same manner -- these are instinctive operations. However, once the basic model is formed there, all of the center areas of the HCMem are fully available to fill their roles in perfecting the RPC model. This allows all parts of the centers to participate in the model construction, each one presenting its expertise in one of the five areas.

> "But this idea is interesting because it shows that the activity of the machine depends on external impressions, and begins with responses to these impressions.
>
> *Centers in the machine are perfectly adjusted to receive each its own kinds of impressions and to respond to them in a corresponding way.* And when centers work rightly, it is possible to calculate the work of the machine and to foresee and foretell many future happenings and responses in the machine, as well as to study them and even direct them.
>
> But unfortunately, centers, even in what is called a healthy and normal man, very rarely work as they should.
>
> The cause of this is that centers are made so that, in a certain way, they can replace one another. In the original plan of nature the purpose of this was, undoubtedly, to make work of centers continuous and to create a safeguard against possible interruptions in the work of the machine, because in some cases an interruption could be fatal.
>
> But the capacity of centers to work for one another in an untrained and undeveloped machine – as all our machines are – becomes excessive and, as a result, the machine only rarely works with *each center doing its right work*. Almost every minute one or

[15] Ouspensky, P. In Search of the Miraculous. Chapter VIII. Page 155.

> another center leaves its own work and tries to do the work of another center which, in its turn, tries to do the work of a third center."[16]

When Ouspensky states that each center is perfectly adjusted to receive its own kind of impressions, he describes the process wherein elements of HCMem which represent a center are exposed to the contents of the RPC model and *select themselves* for inclusion in the model. *This self-selection is what we perceive as attention.*[17]

In a mind disciplined by self-observation where all centers are part of each model, the correct center will naturally come into force in appropriate circumstances. When the appropriate center has been excluded from access to the model by the process described above, the portions of HCMem -- parts of some centers -- called by RMS to join the model may perform wrong work due simply to the fact that they are not the centers needed to do *right work*.

To understand the mechanism for this correct work of centers, yet another brain component must be considered.

The Conceptual Symbolizer (Sym -11) is a very important part of the system of thought. Unlike the RPC, the Sym is comprised of cells similar to the HCMem with an important difference. In the HCMem, forward addresses organize cells into strings which reflect logical ties expressed with a specific strength of association. In the Sym each of the highly interconnected cells are tied to every other cell in a uniform strength of association. Even more important, all cells in the Sym are typically empty -- that is, each is only a temporary holder of a copy of memory held elsewhere.

What tasks does the Conceptual Symbolizer perform?

For one thing, it is "where sentences go." The rest of the system can identify words, give them meaning, even interpret them. However, the final conversion of all this information in the RPC is given over to the Sym. Its erasable memory will resolve the communicated meaning and store the result in the RPC. What is stored in the RPC will have no forward address to the Sym; it will be addressed as is typical to anything that has been in the RPC.

Generally, the Sym is used for modeling abstractions. If a person were able to look at an algebraic equation in his homework and visualize the functional curve it generates, this process would take place in the Sym. When a person plays Solitaire on the computer, finds himself at loggerheads, then formulates a plan based on stepping back through the sequential plays to change the, so to

[16] Ouspensky, P. The Psychology of Man's Possible Evolution. Third Lecture. Page 58.

[17] Self-selection is described fully in other papers of this series.

speak, "flow of consequences" in his favor, this activity occurs in the conceptual symbolizer.

There is no relevant ESS event which will guide this activity. The Sym is a model maker which does not begin with an ESS event. It is the apparent highest point on the hierarchy of cells in the mind. Its interconnectedness is complete -- all of its cells are connected to all others. The lines of forward addresses generated by it during work conducted in it quickly fade when completed.[18]

For the student who is recording attention, the Sym becomes the "black board" for his efforts. In Diagram 8 (page 28), RPC vectors are shown entering the center areas through HCMem. As they strike the apparent field of attention, their destination is shown at the penetration, **Ei, Mm** and so on (10). This process is actually transpiring in the Sym.

Through repeated efforts at attention recording the Sym learns to model the field of attention, and it is a very good model because the data which drives it is derived directly from the addresses of HCMem being self-selected into the model. This dynamic model appears to the student as a visualization of the field of attention in real time.

As the Work progresses this visualization moves "up" in the memory of the Sym. Below it instead of a "mimic board" the actual elements of the centers begin to reside in the Sym. However, as they are loaded something wonderful happens!

Recall that the gangs of "thugs, buffers and paradoxes" we call interlopers were formed by selection of strings of forward addresses resident among the cells of the HCMem (centers). Once these same elements of the general operating system are presented in the Sym, their forward addresses are overwhelmed by the complete forward addressing of all cells there, leaving every element of the operating system independent of its prior associations in the HCMem. Additionally, Sym contents become fully exposed to both the RPC and the RMS, once again, making even more dynamic self-selection possible (our goal).

Now all HCMem cells can function, whether selected or not by the haphazard process of being called by something in the RMS.

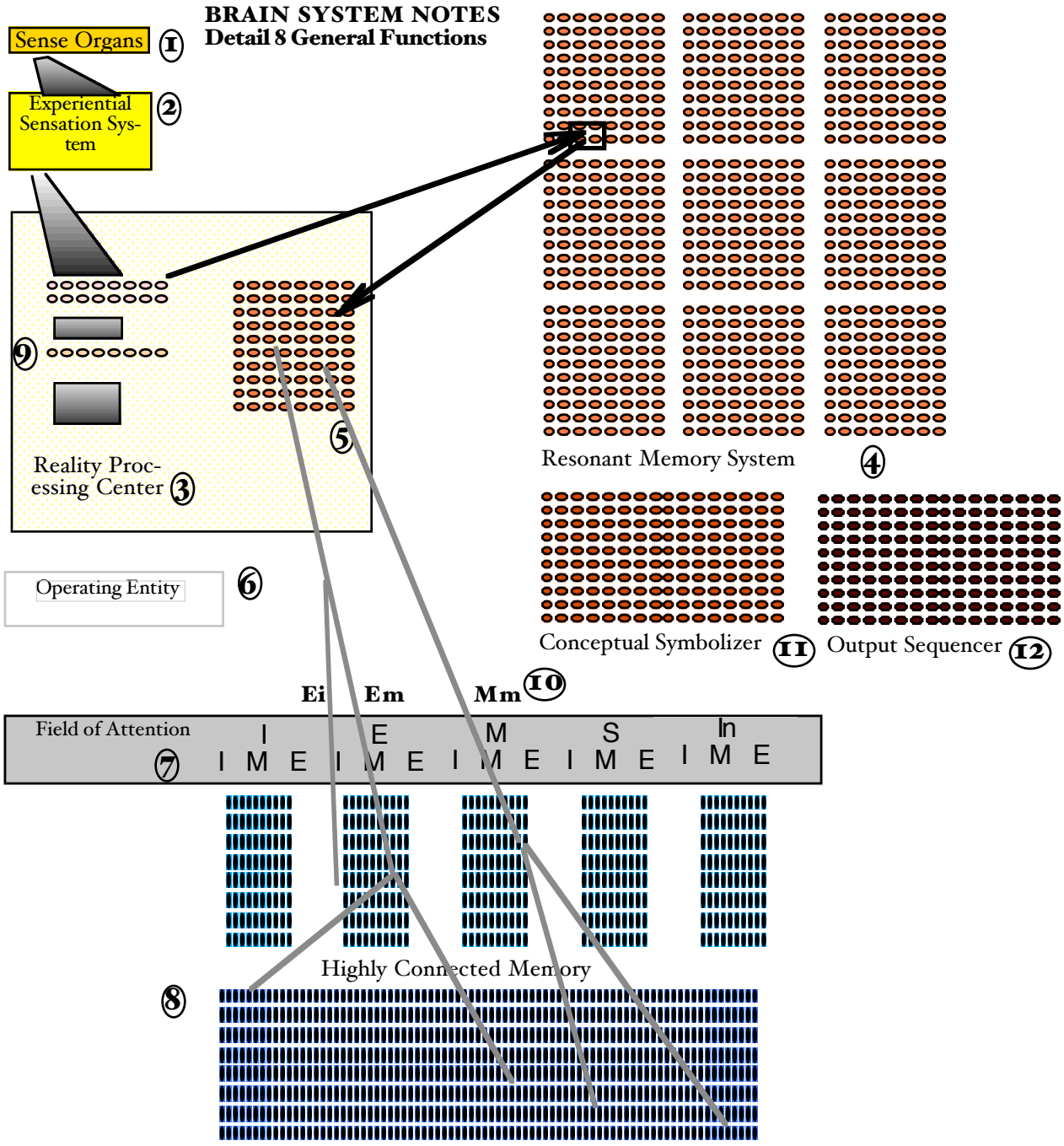
As attention is recorded over and over, the Sym automatically makes the process more and more efficient by moving the HCMem elements either closer to or adjacent to the model of attention. The more HCMem is resident in the Sym the more freely and accurately are the centers available to process RPC models. The more correctly the models are processed, the higher the quality of the forward

[18] See Process of Speech, a paper in this series.

address structure beginning to present itself in the associations of the RMS -- meaning fewer logical paradoxes are stored in the associations between memories. Further, the ability of an RMS memory to initiate a sequence of *identification* by selecting its own region of the centers in HCMem is quite greatly diminished.

Thus begins the dismantling of a life time of wrong work of centers and the subsequently inaccurate storage of memories, especially with respect to their associations. The greatest culprit of all has resulted from the process wherein the form and portion of consciousness which has been selected over and over processes certain memory incorrectly. This process, as has been said, gets worse and grows stronger as it proceeds. The sensation of final freedom from this is felt in the amazement of the centers (or the "Permanent I," if you will) in the Sym as these tiny whining voices continue to demand their ration of fear from their cronies in HCMem. The calm answer is that from now on "You only get to be what you really are." Below the apparent field of attention "... a man knows all at once everything that he in general knows ..."

The idea of Gurdjieff's system is clear. This is the state a man is born to and ownership of it is his birth right through his life.

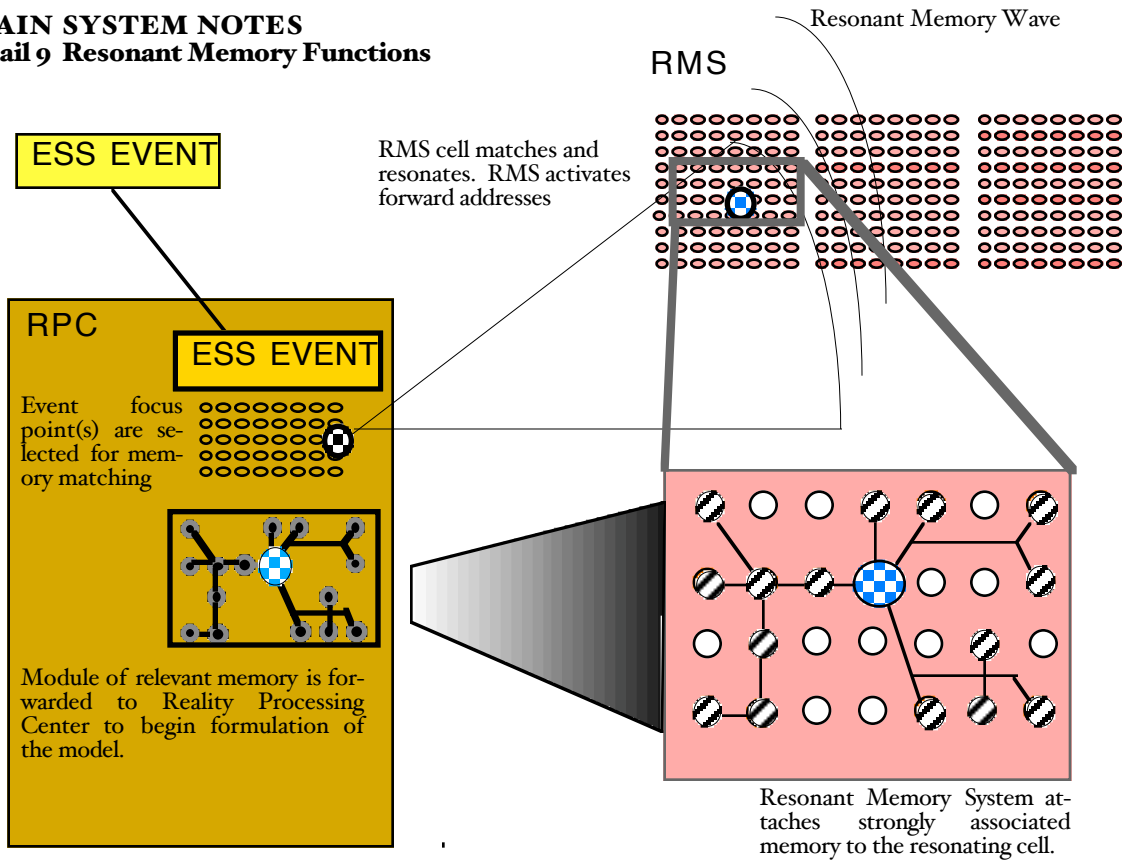



| | |
|---|---|
| 1 SENSE ORGANS OF THE INSTINCTIVE CENTER | 2 EXPERIENTIAL SENSATION SYSTEM |
| 3 REALITY PROCESS CENTER | 4 RESONANT MEMORY SYSTEM |
| 5 DEVELOPED MODEL IN RPC | 6 OPERATING ENTITY - INTERLOPER |
| 7 FIELD OF ATTENTION IMAGE OF ACTIVE CENTERS | 8 HIGHLY CONNECTED MEMORY (CENTERS) |
| 9 ESS EVENT AREA IN RPC | 10 APPARENT FIELD OF ATTENTION |
| 11 CONCEPTUAL SYMBOLIZER | 12 OUTPUT SEQUENCER |



❑ **ESS** -Experiential Sensation System ❑ **RPC** -Reality Processing Center ❑ **RMS** -Resonant Memory System
❑ **Sym**- Conceptual Symbolizer ❑ **HCMem** - Highly Connected Memory ❑ **CRH** -Cross Referential Hierarchy

**BRAIN SYSTEM NOTES**
**Detail 9 Resonant Memory Functions**




## How Rich will Life Be?

The format of an arriving ESS event in the RPC is a reflection of the exact physical apparatus of the sense organ which experienced it. A sight arriving from the eyes has been cleaned up and modified slightly by mechanical ganglia in the optic nerve, but it is still "traveling" as a huge block of individual impressions of rods and cones. When RMS is engaged to match this set of data, the form of the memory held there will be the same, a huge block of impressions from rods and cones which has been stored sometime previously.

Further, within a single ESS event, all the data arrives forward addressed to all other parts of the event. Modifications to the linkage and the relative strength of association occurs later and results in memory organization.

RMS records the experiences of life within its memory structure. As individuals, we have already determined that the parts of an ESS model somehow go together. Most people are not very aware of the reasons and rules they have used to make this connection, but the connection itself is the greatest influence they will experience during life. Two men of generally equal intelligence and energy get out of the bus the see the Grand Canyon. Afterwards they sit on the bus ride back considering the nature of their impressions. One of them has created a model which has developed into 80,000 forward addresses, the other 2.000 forward addresses. The first man has created a richer, more detailed and more integrated memory of his experience. His process of memory creation will provide a richer life experience.