# Science and the influence of the rays

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# Introduction

If we would choose to describe the age we are living in we would have to call it the age of reason, age of science, perhaps even to a certain extent and in comparison with the ages past, an age of enlightenment. It seems human civilization has reached the point where the mind nature can begin to blossom and make a supreme impact upon the world. The importance of this development can be glimpsed, if we look at the word used to describe us, the word "man"<sup>1</sup>. It is derived from an ancient word "Manu", which means the progenitor of mankind, and "Manu" comes from the word "Manas", meaning to think, or mind. The mind nature is what makes us what we are. The ancient Vedic word expresses this most clearly. Since many of us today are so habitually dwelling within our mind natures we scarcely realize how new and amazing is this new development. Of course having a developed mind is nothing new to individuals within humanity, but it is something new for the humanity as a whole. Today masses of people are having their minds awakened, intellect is flourishing, creativity is at its heights, education is almost universal and all that is new. Little do we realize, but we live in glorious times.

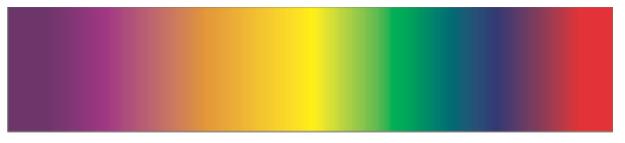
Why this almost sudden – from a historical perspective – awakening of the mind nature came to pass is a very interesting question, worthy of every effort to explore and expand upon. We however will touch upon something else of equal interest. The development of the mind gave mankind the opportunity to respond to the world of knowledge with the mental apparatus, a much more refined and capable instrument of cognition. A few brilliant minds began to explore the world and its laws with their deeply penetrating minds, doing this analytically, systematically and experimentally. Old views were questioned and slowly, step by step, people began to unravel the secrets of the outer garment of God. These were the beginnings of the modern science, a strict but as we shall see child-like approach of unraveling truth, based on hypothesis, experimentation, observation, analysis and repeatability. Although not new, this approach was adopted by many and most importantly the findings such methods presented met with response in other members of the human family. Such response was heretofore lacking. The scientific approach was amazingly successful and science soon began to fundamentally shape and define our society and culture. The Age of Reason was slowly but surely inaugurated and this presented the opportunity for ancient truths to be presented in a new and far more comprehensive way.

In the end of the 19<sup>th</sup> and the first half of the 20<sup>th</sup> century we received immensely important works of wisdom, which hoped to capitalize on our mental development. Through these works we received seeds of knowledge that would enable us to make another step forward, similar, or even

<sup>&</sup>lt;sup>1</sup> Note that this word was in the past gender neutral. Today the same meaning is expresed by the words »human« or »mankind«, which retains the original root »man«.

greater than was the general development of the mind in the last few centuries. In these teachings presented by Master DK through the works of Helena P. Blavatsky and later Alice A. Bailey and others the concept of rays was presented to the intelligent thinker. It was decided humanity was ready for a deeper insight into the nature of things. We were ready, with our minds and also our hearts, to go beyond the mere appearance and the form. We were ready to enter into the world of qualities and whenever we are dealing with qualities, we are in reality dealing with the Rays.

Rays can perhaps be best described as patterns upon which the world is formed. They constitute that subjective or esoteric totality that defines the purpose and quality of the form. All forms are subject to ray influences and reflect them in one way or the other. The Treatise on the Seven Rays, particularly Esoteric Psychology<sup>2</sup>, posits the existence of 7 creative energies or rays. These energies are present throughout the cosmos as the *driving energies* behind evolution. They are the basic differentiations of one unified Life, pervading everything.



*Picture 1: Energies of the seven rays depicted through color, existing throughout the cosmos, conditioning everything therein.* 

In ray theory every form is endowed with the quality of a certain ray and under the influence of many ray qualities. It would be necessary to point out that we are aware only of a fraction of forms that exist. With our present equipment we are fully able to contact and perceive only the forms that exist on the so called physical plane<sup>3</sup>. These however are not the only forms in existence. Esoteric theory teaches us that every expression of consciousness must have a form through which it can come into existence. Without form, there is no consciousness, and consciousness is everywhere. Due to our limited capacity of recognition, we can perceive only those states of consciousness that are sufficiently close to our own. For example we attribute some kind of consciousness or sentient awareness to animals and plants, but to the mineral kingdom we withhold this honor. The reason is simply the conscious processes within the mineral kingdom are so different from what we are, that the consciousness therein is simply too foreign to us. Can we then posit that the same is true also for consciousness far above that of the present human state? Can we assume such states of consciousness exist? I believe we must. We are of course aware of our vital, emotional and mental processes, however we are unable to see, or more accurately to be sensorily aware of the existence of the forms that carry thoughts, emotions and vital currents. Yet esoteric science recognizes the existence of such forms and also others, far beyond even our imagination.

Each form and each state of consciousness that is expressing itself through it is connected to one of the rays. From another perspective it can be also stated, that this form came into existence upon the impulse of a certain ray. If we entertain the idea that forms exist also on other levels of existence,

<sup>&</sup>lt;sup>2</sup> Esoteric Psychology, Alice A. Bailey, 1936

<sup>&</sup>lt;sup>3</sup> Plane is a synonym to state of consciousness and sentient awareness, yet is also a band of energy, able to produce a specific state of consciosness, awareness and expression. (See page 10)

as for example the so called plane of emotion, or on mental plane, or on planes above those two levels of consciousness, and that these forms correspond to certain rays which give them their primary and secondary coloring and their quality and are conditioning the expression of consciousness, a vast and intricate field of research opens before us.

These are the ideas behind the theme we are going to explore. Some of these rather abstract notions anent the rays are necessary to lay the foundation for the following thoughts. Particularly we will be looking into the relation between the scientific development, its present state and purpose and the influence of certain rays that have been and are affecting the evolution on our planet at this moment and in the near future. For if we accept, that the rays condition all expression, their influence should be recognizable everywhere. Since the development of the mind and consequently scientific expression is so prominent at this time, it would be most interesting to explore, if and how this is related to the ray influence. We should be able to observe clear indications, how a ray with its qualities has contributed to the shaping of our present scientific development, to the mass awakening of the mind nature and to the nature of our culture and civilization.

# The nature of science

It might be asked here, what is science? What defines it and what sets it apart from other "nonscientific" approaches? Is it a method how to approach reality? Is it a state of consciousness that uses certain qualities to unravel the secrets how the world is functioning? What is required for some approach to be termed scientific? What knowledge is scientific knowledge? All these questions have important bearing on our theme. If we can attribute science and scientific processes to a particular state of consciousness, we will be able to observe if and how this is connected to certain rays that have been present during the rise of science and are still in manifestation today.

Science is founded upon the ability of the mind to question, observe, define, relate and analyze. The basic aim of science is to understand. All these are faculties of the mind. A scientific mind is an inquisitive mind. It is the mind that makes us question the world around us, to seek knowledge, to understand. It enables us to pierce the edges of our established knowledge, beliefs and world views. The mind was well developed in advanced thinkers throughout history, however these were few. The mind nature in the bulk of humanity was dormant until recent times. That means the ideas present upon the plane of mind were inaccessible to most of humanity. This was perhaps one of the main reasons why science could not flourish. It could not take root in a society where the mind nature, a requirement of the scientific consciousness, was not sufficiently developed. But in the last 500 years, particularly in the last 150 years, this situation changed. There was a curious stimulation that somehow sparked the mind nature, awoke it and stimulated more and more people to think as minds. What was responsible for this stimulation and what part did the Rays play in all this? Due to the complexity of the theme we will only scratch the surface of this most interesting development.

To understand what this mysterious something was we would need first to observe the nature of the mind as a means of recognition. Most of what we "know" of the world, of that which we look upon as true, is learned. We do not create our own view on of reality, we for the most part simply pick up upon existing ideas and accept them as our own and interiorize them. Not very scientific, is

it? The function of our mind is the ability to recognize these ideas. Without it we would not be able to organize them and connect them into one more or less coherent world view. This can be as simple as the views of some societies still existing in Polynesia or Amazon forest which attribute most natural phenomena to the working of some deity or deities and to the largely unknown spirit world; or it can be as elaborate as the views of our foremost thinkers, scientists, philosophers and holy men or women. The quality of ideas we incorporate into our world view is dependent on two factors:

- 1. The ideas present in our environment; under this we can include the ideas underlying the civilization and culture of a certain world period, as well as the means of how these ideas are communicated.
- 2. The subjective quality of the mind itself; a more developed mind is able to come in contact with a wider variety of ideas, can reflect upon them, can better integrate them and discriminate between them; a lesser evolved mind however only accepts what has been presented, with none or only a little questioning, simply repeating the pattern present in the environment.

If we simplify a little bit we have two modes of mind. One is inert, unquestioning, satisfied; let us call it the concrete or repetitive mind. The other is the inquisitive, outgoing, dissatisfied mind; we could call that the abstract or piercing mind. Both modes are present within us, all of us. It is just a matter which mode is the predominant one. The latter is necessary for any scientific endeavor. The awakening of this piercing mind was responsible for the evolution of science, for the beginnings of questioning the established knowledge and truths, which were usually taught by the major religions in the past and some prominent thinkers. The nature of the piercing mind is to advance in leaps and bounds, or at least to transcend the established concepts. The presence and use of this piercing mind was a necessity for emergence of science. The workings of the piercing mind are like a seed thought that plants something out of which a new set of ideas can grow and develop and eventually become a whole new paradigm. A few brilliant minds of the past, like Sir Isaac Newton, Galileo Galilei or Nicolaus Copernicus, were definitely in possession of such a mind. With their insight they pierced the wall of existing ideas and permitted the light to shine through. It is generally believed that science emerged because of the great men and women that presented new insights and thus enriched the world view of the society and its understanding. None of this could have become one of the guiding paradigms of the society if the mind of humanity as a whole would remain unresponsive to these new ideas. The mind in the human kingdom as a whole had to be developed.

If we assume that for the emergence of science the mind of humanity had to reach sufficient development and activity, what was responsible for that development? And can this development be somehow connected to the rays present during that period?

As esotericists we must look for the inner causes of outward happenings. Rays definitely would have to play a major role in this development. It is the intent of this paper to explore how rays are connected to this emergence of dissatisfaction with established order, this capacity to observe and draw conclusions, to this insight only a piercing mind can provide and finally to the emergence of science as one of the most defining characteristics of the present culture, and also, what rays affected it and how did they color the consciousness. To do that we must first look at the qualities the rays have, as they have been presented to us through the works of Alice A. Bailey and note also which rays were present in manifestation during the period of the emergence of science.

# Rays present today and their qualities

We shall presume rays are the conditioning power behind the outer appearances. We could say they condition the soul of things, that inner pattern that has for its goal an expression of a certain kind of consciousness through some particular form. In human kingdom rays promote the development of consciousness from stage to stage, from quality to quality. Each ray contributes some particular quality that is required for the synthetic development of each individual, humanity as a whole, and the planetary consciousness.

A Ray's influence comes and goes in cycles. In certain periods a ray is actively conditioning the development upon the planet; in a different period it is withdrawn and the emphasis of development is carried forward by some other ray. In a particular period one ray is always dominant and others actively present. This dominant ray presents the root note of the period, whereas the other rays present the notes that form different chords with the root note, together providing the harmonics or chord of a given period. How these influences play out is still largely unknown, for the exact ray periods, their frequency, wave pattern and the larger ray cycles and astrological ray influences have been given to us as fragments of a grand puzzle, which we are at this moment probably not capable to solve. We have been presented however with some data upon the ray influences, given some anchor points, upon which we can lean and connect them to our observation of the outer developments. In connection with the development of science and related mind consciousness it is quite evident, the given ray cycles coincide with some of the historical turning points.<sup>4</sup>

We have been given information on the Rays, which are presently influencing us. Quite a bit more information was given out on the qualities and influences of the rays themselves. To observe the correlation existing between the development of science and the influence of the rays the qualities of the rays that were and are currently in manifestation should be studied. The influences of the rays and their expression are dependent on the form they are expressing themselves through and the nature of consciousness that form is exhibiting. Therefore the quality of Ray II for example will manifest itself differently in the planet as a whole, within humanity as a whole, a kingdom of nature, a race of men, a nation or an individual human being (and also with an individual, depending which part of his equipment resonates with the mentioned ray and on his evolutionary development). However the general pattern or principle remains the same and this is something we may look for when we will be searching the present nature of science and its qualities and correlating these with the possible ray influences.

<sup>&</sup>lt;sup>4</sup> See Picture 3 below.

### Ray I

The Ray of Will and Power is currently not in manifestation. However its energies are present on demand, when needed by the great planetary evolutionary forces to eliminate the outworn forms. All forms outlive their usefulness. When they become an obstacle to the progress of the soul within those forms, it is desirable that the limiting forms are eliminated.<sup>5</sup> This is done under the power of the first ray.

### **Ray II**

It is called the Ray of Love-Wisdom. It is the primary ray of our solar system. The goal of the entire solar systemic evolution is to permeate all manifestation with the quality of Ray II<sup>6</sup>, which is love. This goal will be reached when all substance and all manifested forms will exhibit this quality and be fully responsive to it. If rays would be likened to information, this would mean the solar system has to become fully informed, informed by love.

Ray II is always present, as all the other rays within the solar system are the subrays of this great ray. Its main qualities are attraction, love, radiance, wisdom, preservation.

Every form is made of parts. The form is a vehicle of some consciousness. For example the human body is made of cells, living organisms by themselves, yet the body functions as a coherent whole. The principle of coherence is deeply connected to Ray II. This ray causes:

- A deepening realization of a part that it is included into a greater whole and is basically one with all the other parts.
- Growing integration between units of consciousness or "parts" of any form.
- Magnetism, towards other parts (horizontal magnetism) thus initiating experience, or toward the greater whole (vertical magnetism) and so initiating integration and responsiveness.
- Unity.

Ray II is the carrier of the great principle of coming together. To do that, intelligence is required, which is molded by the rays 3-(4-5-6-7) and applied to the dynamics of the life impulse. Therefore Ray II is also applied knowledge or wisdom. It tends to the unification of all knowledge and its use is to bring forth the purpose for which a form was created.

### **Ray III**

It is called the Ray of active intelligence. The quality of this ray is that of adaptability, power to manifest, evolve and produce physical synthesis, mental illumination, scientific investigation and balance. Just like Ray II it is one of the major rays<sup>7</sup>. Under its influence evolution and adaptation of the form and substance proceed. It prepares the means and imbues them with the capacity of intelligent discriminative action. Ray III provides the material out of which any idea can be and is manifested. The material must be prepared to suit the needs of the builder (the soul). Anyone who tried to realize his ideas knows that the most difficult and also the most time consuming part of "making the idea to become flesh" is the procurement of the material, the proper building blocks

<sup>&</sup>lt;sup>5</sup> Esoteric Psychology I, p. 45, Alice A. Bailey

<sup>&</sup>lt;sup>6</sup> The Destiny of the Nations, p. 25, Alice A. Bailey

Telephaty and the Etheric Vehicle, p. 194-195, Alice A. Bailey

<sup>&</sup>lt;sup>7</sup> Esoteric Psychology I, p. 44-45, Alice A. Bailey

that are necessary for the idea to manifest. Intelligence as the correlative and selective factor is therefore strongly connected to Ray III.

It is particularly potent in all manifestation as the matter out of which everything is made is attuned to it. We are told this attunement is the consequence of the previous solar system, the first, which conveyed Ray 3<sup>8</sup>, ours now being the second solar system. Furthermore Ray 3 is the personality Ray of our planetary Logos, the Being that informs our little planet, meaning everything within his sphere of manifestation, particularly the lower planes we call the physical, astral and mental are predominantly expressing the qualities of this ray. This Ray is always present and influential.

### **Ray IV**

Ray IV is called the Ray of Harmony through Conflict. Currently it is not in manifestation but its influence will begin to be felt in the next one hundred years. Ray IV is the ray of the messenger between the form and the soul. When the message of the soul is heard within the form and the form responds adequately to it, beauty and harmony are produced. The form reorganizes to adapt itself to the dynamic intent of the soul.

This Ray governs the entire human kingdom and also the greater cycle we are in. Therefore its influence is always present.

### **Ray V**

It is called the Ray of concrete knowledge and science. As already its name implies, this will be one of the rays we will be particularly looking into. Its qualities are somewhat abstruse.

One of them is penetration into form and emergence out of it; this ray is also deeply connected with the mind, as are all the rays on the line 1-3-5-7; it gives the consciousness the power to look deeply into the world of phenomena or the world of form and understand the laws and relations existing therein; this quality also enables the thinker to transcend the limitation of the existing thought patterns and penetrate beyond the established paradigm; thus this ray is connected with the type of mind previously termed the piercing mind.

Another quality is the power to make the Voice of the Silence heard<sup>9</sup>. We must here remember that every conscious process has its energy counterpart. In other words, all information that manifests through consciousness is carried on a medium of substance; feelings have substance, desires have substance and thought or embodied ideas have substance. This is not unlike the information that gets interpreted by our radios or mobile phones, or by our senses; some information like sound waves require a physical medium to propagate. Others like radio waves and other electromagnetic radiation do not require a physical medium, but pure energy electromagnetic fields. However the carrier is always present although it can be of widely different nature. Needless to say the carrier field for the emotional or thought information has not yet been discovered and can be for now physically sensed only by the most sophisticated piece of equipment available on the planet, the brain and the nervous system. What is then the Voice of Silence? It is a phrase used for describing conscious contact with the soul, the real Man. Our soul is said to exist in the mental substance on the so called formless levels of the mental plane, the 5<sup>th</sup> plane counting from above

<sup>&</sup>lt;sup>8</sup> Letters on Occult Meditation, p. 214-217, Alice A. Bailey

<sup>&</sup>lt;sup>9</sup> Esoteric Psychology I, p. 79, Alice A. Bailey

down. Each plane is connected to a certain type of consciousness and is actually named after it. So we have the partially known physical plane (7<sup>th</sup> plane), the plane of emotion or desire (the 6<sup>th</sup> plane) and the mental plane (the 5<sup>th</sup> plane). Correspondences between ray numbers and plane numbers do exist and are of prime importance. The 5<sup>th</sup> plane of mind is thus ruled by the 5<sup>th</sup> ray. The 5<sup>th</sup> plane is also where our soul can be found. The 5<sup>th</sup> plane is actually divided into two parts:

- 1. The lower mind (form levels), where the mind aspect of intellectually developed consciousness of the human beings can be found.
- 2. The higher mind or abstract mind (formless levels) where the consciousness of the soul, or the son of mind, finds its field of expression.

The goal of all advanced people is at this moment to establish conscious contact with their soul aspect on higher mental levels on the 5<sup>th</sup> plane of mind. Needles to say, the 5<sup>th</sup> ray plays the most important role in this transition.

The quality of the revelation of the way. This quality of Ray V develops the power of discrimination, of analysis, of scientific enquiry. It presents one of the main doors through which initiation will be taken, particularly in the future when the race will begin to focus its scientific investigation from the purely physical phenomena to the more subtle energies and corresponding states of consciousness.

The strong influence of the fifth ray was definitely responsible for the stimulation that resulted in emergence of the science and its steadily increasing prominence within our culture. Later we will expand upon the Ray V qualities.

### **Ray VI**

Ray VI is called the Ray of Devotion or Idealism. It was the strongest influencing ray of at least the last 2000 years. We are also within the larger cycle of the Sixth Ray, so its influence is profound. Most of our present civilization and culture was and still is conditioned by this ray that is presently passing out of manifestation. It is slowly ending its smaller cycle of activity.

As already its name implies Ray VI endows the consciousness with the quality to recognize and then fiercely follow an ideal. One of the names of the Ray VI is "The Breaker of Stones", describing its power to ruthlessly break the established patterns or beliefs and to introduce a new ideal, with total disregard to the pain and suffering caused in the process. "The end justifies the means," is a clear 6<sup>th</sup> ray saying. Under the influence of this ray many ideals are now so firmly inculcated in the human consciousness that we are simply no longer able to look the other way. The ideal of loving relationships, behind which stands the idea of love, and the ideal of brotherhood, behind which lies the idea of unity, are two examples. Many times when we look at the horrors of the ages past we forget the flowers that blossomed upon the fields drenched with blood.

With the Ray VI we can most easily observe how a ray quality, in this case devotion to an ideal, always affects the human consciousness according to its stage of development, but a general pattern is still recognizable. It is one of the influences that brought about the so called dark middle ages with all the blindness of mind and pronounced absence of reason. Ideals, usually embodied in prominent historical religious figures like the Buddha, the Christ, the Mohammed, Alexander the Great, and other prominent individuals, were in due time accepted by the masses without true understanding.

An excellent example is Christianity which conquered Europe and its beliefs but was for almost a millennia and a half exclusively given out in a language that was incomprehensible to all but a select learned few. Consequently the meaning of the ideal was twisted and warped, outer appearance and the form side was emphasized and there was zero tolerance for anything following a different ideal, even if the difference was in detail only, not in substance. A pictorial example of the mindset that ruled those ages can be found in the communiqué between Amr Ibn al' Aas the Arab conqueror that took Alexandria and his superior Omar, who replied to his subordinate when asked about the books found in Alexandria: "If those books are in agreement with the Quran, we have no need of them; and if these are opposed to the Quran, destroy them."

### **Ray VII**

It is called the ray of ceremonial order or magic. It is the ray that will dominate the following world period. Its influence is the strongest on the physical plane, which is the 7<sup>th</sup>, counting from above down. Its quality is to create order that enables the manifestation of various energies upon the physical plane. Ultimately every purpose has to manifest itself upon the physical plane. The 7<sup>th</sup> ray produces the law that is responsible for the emergence of order needed for the grand purpose to move closer to fruition.

Ray VII is responsible for the creation of order which in essence is the emergence of responsiveness of the multitude to the central Will, thereby evolving towards united and harmonious action. It promotes the capacity to respond and perfectly express the purpose or will of the One, whose body of manifestation the multitude provides. A successful consummation of this process can be observed in our physical body. All its parts working together in more or less perfect order and rhythm are completely responsive to our will; even more than that, for most of the body functions are already below the threshold of our consciousness and thereby provide a perfect vehicle for our functioning on the physical plane that does not require our conscious effort to function, only to maintain. We do not have to will the heart to beat, it simply does so. Of course we must respect the requirements of our physical bodies and provide it with the necessary nutrients, rest and hygiene, but for that we are rewarded with a near perfect mechanism, able to accommodate the purposes of all kinds of different types of consciousness.

Some other qualities of Ray VII are the power to create, to make manifest; the power to cooperate, making the parts work in unison and harmony; power to think, or to use the mind in the creative process; to reveal the beauty of God, or to conform the outward appearance perfectly to the inner pattern; power to vivify, or to renew and rebuild, to organize and instill with renewed life<sup>10</sup>. Ray VII is connected to the Ray I, which is the destroyer aspect. Ray I destroys, Ray VII reorganizes the substance that previously constituted an outworn form

Ray VII has a deep influence on science, particularly on its orientation. In part our attraction to the physical world and the desire to understand it, control it and reshape it is connected to the influence of this Ray.

Ray VII together with Ray I rules the mineral kingdom. Its growing influence was instrumental in the discovery of radioactivity and later of the atomic fission. Esoterically as well as exoterically this was a monumental discovery that reshaped our world. The discovery of radioactivity brought science

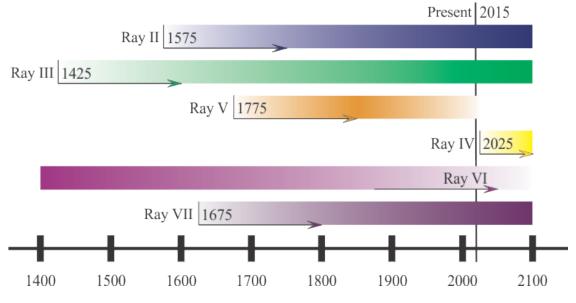
<sup>&</sup>lt;sup>10</sup> Esoteric Psychology I, p. 86-88, Alice A. Bailey

on the threshold of the etheric portion of the physical plane. Through it we were from an esoteric viewpoint in fact observing the consummation of the evolutionary process within the mineral kingdom. With this new found knowledge we are also able to destroy the world. This fact must also not be taken lightly, as our state of development is not nearly advanced far enough for us to be wielding such power. Yet we will have to learn, the alternative is inconceivable.

This was a brief overview of the Rays, particularly Rays 2, 3, 5, 6 and 7 that are currently in manifestation and are influencing our present period. It is meant to give an outline of the ray qualities, nothing more. With this we can now move to our main theme, the influence of the rays upon the development and nature of science.

# History of science and the influence of the rays

To understand the present we must briefly touch upon the past. As I have mentioned before, not much is known about the ray cycles. We have been given the beginnings of certain ray influences and for the 5<sup>th</sup> ray an approximate ending of its cycle, which is nearly upon us. For a better overview of the presence of the rays in the last 600 years I have included a diagram picturing their entrance into manifestation and the continuous presence of their influence. These are the facts we can work with and correlate them to certain developments in science and consciousness, however for now it is impossible to corroborate them. For now the presence of the ray can only be seen through its effect. Most of us, with exception perhaps of some initiates, are as yet not able to sense the presence or absence of a ray and are not able to sense which form corresponds or is an expression of a certain ray. In time, as our equipment will become more refined, our understanding more comprehensive and our contact with our soul nature more firmly established, we will probably be able to ascertain this things with greater clarity. But for now we must use what we have, our reasoning faculty, our power of observation and discrimination and our flashes of intuition.



Picture 3: Presence of the rays in manifestation, as given in Esoteric Psychology Vol. 1, p. 26, Alice A. Bailey 1936

About the inner dynamics of a ray cycle we can only speculate. The cycles of different rays are said to be of different lengths.<sup>11</sup> A few possible periods were mentioned, but with no additional information it is impossible to expand upon them or even attribute them to a particular ray.<sup>12</sup> Perhaps it would be useful for us if we touch upon the influence of a ray in manifestation. What does it mean that a ray is in manifestation and what happens when it leaves? How is this related to us? Are we all equally affected by a ray in manifestation? Are the effects of a ray influence equally felt on all levels of consciousness? Are these five rays in manifestation the only ray influences we must take into account? Let us try to find an answer to these questions before we take a look at the evolution of science and its major turning points or shifts in paradigm.

# What does it mean that a ray is in manifestation and what happens when it leaves? How is this related to us?

All of the 7 rays are always present throughout the solar system, yet their active influence is not always present in the three worlds of human evolution. The three worlds are composed of three states of consciousness, the physical (together with its etheric component, which is still physical), the emotional or desire and the lower mental (higher mental consciousness/planes are not included in the so called three worlds). As mentioned all these levels of consciousness also correspond to the planes of our solar system. A manifesting ray affects all the levels of consciousness, down to the physical plane.

That a ray is manifesting also implies it is actively involved in the shaping of the forms during the period of manifestation. Everything in the three worlds is to some measure affected and conditioned by the quality of that ray.

Every ray is connected to a certain group of egos or souls. These groups of souls resonate to the quality of their particular ray and are in turn the agents of its distribution. Every ray in manifestation also carries with it into manifestation the corresponding group of souls. So for example at this time there are a lot of 6<sup>th</sup> and 7<sup>th</sup> ray souls in incarnation, as Ray VI was the major influencing ray of the past epoch and Ray VII is the new dominating ray that will rule the future period. This profoundly influences the nature of the culture and also the approach to science and its methods.

A ray during its manifestation permeates the substance of all things. It literally imbues the fabric out of which the world of that period is tailored. When it leaves manifestation this resonance remains within the substance and although the forms created in the new period of its absence are conditioned by other rays, the added quality of the ray then out of manifestation remains. One ray prepares the way for the other and their qualities supplement each other, bringing everything a little closer to perfection.

<sup>&</sup>lt;sup>11</sup> Students discuss the periods of the emergence of the Rays, setting arbitrary dates, such as 2500 years, for the manifestation of any particular ray. One ray does pass through its cycle in that length of time, but only one, the others being either longer or shorter. A treatise on Cosmic Fire, p. 1037, Alice A. Bailey

<sup>&</sup>lt;sup>12</sup> Apart from the cyclic impulses continuously going forth, overlapping and superseding, and intermingling with each other, there are many which we might call lesser impulses (and the cycle of one hundred years to which H. P. B. refers is but one of the lesser impulses. There is a one thousand year cycle of greater moment). There are vaster cycles, of 2500 years, of 7,000 years, of 9,000 years, of 15,000 years, and many others which only advanced initiates know of or can follow; these can break in upon any of the lesser impulses, and can be seen appearing, unexpectedly, as far as average man's knowledge is concerned, and yet they are but the returning impulses set in cyclic motion perhaps thousands of years ago. *A treatise on Cosmic Fire, p. 1038-1039, Alice A. Bailey* 

# Are we all equally affected by a ray in manifestation? Are the effects of a ray influence equally felt on all levels of consciousness?

A simple answer would be no, we are not influenced equally and rays differently affect the various levels of consciousness. There are many factors that determine how and to what extent a certain ray in manifestation affects us. Rays are conditioning every form, or perhaps more exactly every composite organism. A particular ray is conditioning for example the solar system, our planet, soul groups, the kingdoms of nature, our race, our nations, an each individual. Each one of us is part of these sets, viewing them from the form aspect, or unities viewing them from the soul aspect. Interestingly the rays affecting these two aspects differ. The form aspect of an individual is the personality, so a ray that conditions his personality is usually different from the one conditioning his soul aspect. The same principle is true for all manifestations, from a solar system, a planet or kingdom of nature, down to an individual human being; all the lesser forms of the lower kingdoms are conditioned by rays a little differently as they are lacking the individual soul aspect. Let us therefore tabulate which rays are conditioning the great groups, starting from the greatest, the solar system.

Solar system is conditioned by Ray II<sup>13</sup>, ray of love-wisdom. This is the basic ray that affects everything within this system. It is always present, as all the other rays are only the subrays of this great ray.

Our planet is conditioned by Ray III<sup>14</sup>, ray of active intelligence and the Ray II, ray of love-wisdom. Ray III governs its personality expression; Ray II is its soul expression.

Soul groups are conditioned by all the 7 rays<sup>15</sup>, each soul therefore has its place within one of these 7 group soul centers.

No.	Kingdom	Form aspect	Soul aspect	Monadic aspect
5.	Soul kingdom	Ray V	Ray II	
4.	Human kingdom	Ray IV	Ray V	
3.	Animal kingdom	Ray III	Ray VI	
2.	Plant kingdom	Ray VI	Ray IV	Ray II <sup>17</sup>
1.	Mineral kingdom	Ray VII	Ray I	

Kingdoms of nature are conditioned by the following rays<sup>16</sup>:

The Rays conditioning our 5<sup>th</sup> or Aryan race are the Ray III of active intelligence and Ray V of concrete knowledge<sup>18</sup>.

Rays condition also our nations<sup>19</sup>:

<sup>18</sup> Esoteric Psychology I, p. 430, Alice A. Bailey

<sup>&</sup>lt;sup>13</sup> Esoteric Psychology I, p. 350, Alice A. Bailey

<sup>&</sup>lt;sup>14</sup> Esoteric healing, p. 591, Alice A. Bailey

<sup>&</sup>lt;sup>15</sup> A treatise on Cosmic Fire, p. 617, 770, Alice A. Bailey

<sup>&</sup>lt;sup>16</sup> Esoteric Psychology I, p. 412, Alice A. Bailey

<sup>&</sup>lt;sup>17</sup> In fact behind all manifestation is not only the duality form/soul, but the triplicity form/soul/spirit. Also the spirit aspect is governed by one of the rays, however out of the kingdoms of nature only the plant kingdom has developed the first or the highest aspect.

<sup>&</sup>lt;sup>19</sup> Esoteric Psychology I, p. 483-484, Alice A. Bailey

Nation	Form aspect/personality ray	Soul aspect/Egoic ray
India	Ray IV	Ray I
China	Ray III	Ray I
Germany	Ray I	Ray IV
France	Ray III	Ray V
Great Britain	Ray I	Ray II
Italy	Ray IV	Ray VI
USA	Ray VI	Ray II
Russia	Ray VI	Ray VI
Austria	Ray V	Ray IV
Spain	Ray VII	Ray VI
Brazil	Ray II	Ray IV

Rays that condition the individual human being must also be considered. There is not one single ray conditioning each individual. Each state of consciousness expressing itself through a human being has an energy component. This component we usually call by a highly inappropriate name 'body', a better word would be 'vehicle'. According to the esoteric doctrine we have 5 bodies<sup>20</sup>. They are:

- The physical and etheric body
- The astral or emotional body
- The mental body or lower mind
- The personality
- The soul or ego

All these are conditioned by rays, usually different ones.

Now, why are all these tabulations important in relation to the question of the influence of the rays? Each ray in manifestation has a particular influence on all the forms that resonate to it. For example Ray VII that is now coming into manifestation and will rule the next period, resonates with the mineral kingdom, which is ruled by this ray. The effects of Ray VII will therefore be most potently felt in the mineral kingdom. The same applies to all the tabulated entities, whether a nation, a race or an individual. Ray VII will have a more profound effect on individuals that have this ray in their ray make up.

Ray	Plane/Plan name	State of consciousness
1	1 Archetypal plane	Adi
П	2 Monadic plane	Monadic
Ш	3 Atmic plane	Spiritual will
IV	4 Budhic plane	Intuition
v	5 Mental plane	Mental
VI	6 Emotional plane	Emotional
VII	7 Physical plane	Physical/etheric

Such correspondences exist also between the ray number and planes.<sup>21</sup>

<sup>&</sup>lt;sup>20</sup> Actually we have 7 bodies, however due to the state of development of a vast majority of human beings the higher bodies can be ignored, because the consciousness required to coordinate them is still so far ahead from our current state of evolution, that the influence of the rays on that high states of awareness does not really reach or effect us. This influence and relation becomes important only after the 3rd initiation.

<sup>&</sup>lt;sup>21</sup> Esoteric Psychology I, p. 419-421, Alice A. Bailey

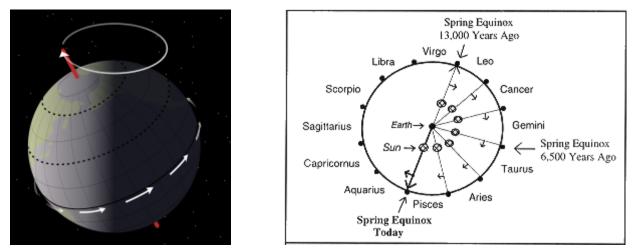
Each ray rules one plane of consciousness, corresponding to its number. The influence of the ray in manifestation therefore most potently affects the plane it rules. For Ray VII for example, that is the 7<sup>th</sup> or the physical plane.

The intricacy of the ray influence is immense. The answers on the questions are intended only to give a general picture of the ray influence and workings.

### Are these five rays in manifestation the only ray influences we must take into account?

Besides the manifesting ray influences there is also a vast array of astrological influences, which were in ancient times so beautifully expressed by the words the "music of the spheres". Out of all these influences which reach us through the constellations, the sun and the planets, we will take into account only the most important one.

There exists a certain time period which is called the precession of the equinoxes or in modern scientific language, axial precession. This is an effect of the tilt of the earth axis.



Picture 4: Earths axial tilt responsible for the precession of the equinoxes effect. The circle takes 25.772 years to complete.

Picture 5: Movement of the Equinoxes through time due to the changes in axial tilt. This determines the small zodiacal ages. An age is determined by the time the spring equinox takes place in one of the 12 zodiacal constellations. A little zodiacal age equals to 25.772/12=2147 years.

This affects a gradual shift of the relative position our earth has in respect to the stars and constellations during a fixed event like the equinox. As can be seen from Picture 5, the change of the relative position of the earth during the spring equinox in relation to the constellations of the zodiac produces the so called ages. In esoteric science great importance is laid on the time of equinoxes and solstices. The periods or ages were named after the constellation in which the sun rose in vernal equinox. So in the past we had the age of Aries (aprox. 2000 BC – 0 AD), age of Pisces (aprox. 0 AD – 2000 AD) and now the Age of Aquarius (aprox. 2000 AD – 4000 AD). Each of these constellations is connected to certain rays.<sup>22</sup>

Approximate Period	Constellation	Ray influence
2000 BC – 0 AD	Aries	Ray I, Ray VII
0 AD – 2000 AD	Pisces	Ray II, Ray VI
2000 AD - 4000 AD	Aquarius	Ray V

<sup>22</sup>Esoteric Astrology, p. 591, Alice A. Bailey

These ray influences are said to be most important and therefore must be taken into account, particularly the Ray II and Ray VI of the past cycle and Ray V of the incoming cycle.

Now that we have briefly touched upon the ray dynamics and intricacies, it would be very interesting to embark on an overview of the scientific development in the last 500 years, however this would too extensive for this paper, but nevertheless it would be very interesting to make a correlation between discoveries and:

- 1. The period of discovery.
- 2. Certain ray qualities.
- 3. Period and the rays present.
- 4. Country or countries where the discoveries were made and rays governing them.
- 5. Rays of the scientist or scientists responsible for the discovery.

# Place of science in our modern society and culture

The World in its outward appearance is colorful beyond words. There are vast differences in culture, world views, quality of living, social models and religion. However behind the appearance there lies a certain evolving quality, a pattern that conditions and affects the slow adaptation process of the outward appearances or the forms we can most easily observe. One of such appearances that fairly recently came into prominence and began to define and influence the world thought as strongly as religion did in the past, is science.

Science of course existed also in the far past, but it was never emancipated, if I may use such a word, from religion. Religion defined the basic scientific paradigm, the foundational belief, upon which all scientific thought and experimentation were based. Science was therefore based on the most prominent belief and religious view of each period. This is the most distinctive difference between the science of the past and the science of today. In the past the basic postulates were not questioned. They were handed down from times immemorial, interpreted and reinterpreted, but mostly not questioned, if they were, the society did not take it lightly. Such science, if it existed in some isolated group, had no chance of finding a response within the society. Scientific thought that is based on observation, critical analysis, experimental proof and repeatability was simply unable to penetrate the slumbering minds of the human race in the past, even when perhaps present in a few brilliant and enlightened individuals that were always amongst us.

A symbol and a factual occurrence of the shift from the dominance of the world view conditioned by religion to the more scientific world view is the Copernican shift. An astronomer Nicolaus Copernicus proposed and proved that the planet Earth and other planets revolve around the sun, rather than the sun revolving around the Earth. For many this event represents one of the great turning points in our approach to reality. It also represents our turning away from us regarding ourselves as the center of the entire known universe and consequently also gives our notions of God a little different proportion and demands a change in perspective. This discovery was only one of many that fundamentally shifted our awareness of the world around us. In time we were presented with discoveries of forces existing between bodies, of energies these bodies exhibited, of building blocks these bodies were made of and their relations, of complex models of behavior for societies and individuals, of the functioning of the human frame, of the principles of evolution of form and many, many others far too numerous to name.

Perhaps it would be very interesting to relate the discoveries of the last 500 years to the known ray cycles, but such an effort is unfortunately outside the scope of this paper. Such a study would not only reveal much of the inner dynamic of the ray cycles, but would also relate the ray qualities to the development of the mind of humanity. I can only hope that this theme will be picked up by research institutions and pursued to the depths that it deserves.

I have therefore chosen to concentrate primarily on the present. It is interesting enough and is the consequence of all previous unfoldments, so in a way the whole history culminates within the present moment. In the next heading I will therefore touch upon science and its relation to the rays in the present moment. Each ray left a certain imprint on the quality of the scientific expression and colored the quality and the nature science exhibits today. We will look at particular Rays and their influence upon the scientific culture. The order will be based on the importance of their influence.

# Rays and their effects on science today

# Ray V

Ray names have probably been chosen so that we would most easily be able to form an impression of their true nature. Therefore the names chosen for them express the major psychological characteristics which we could easily relate to (particularly this is true for the rays of attribute). Ray V is named the Ray of Concrete Knowledge and *Science*. Through this we can see science is a state of mind, or rather an attribute of consciousness. Also this most clearly relates the science, as a state of consciousness to a particular ray; and this is Ray V.

Science cannot exist if the mind nature of man is not at least a little bit developed. In esoteric theory the lower man, the incarnated man or personality, is presented as a quaternary of:

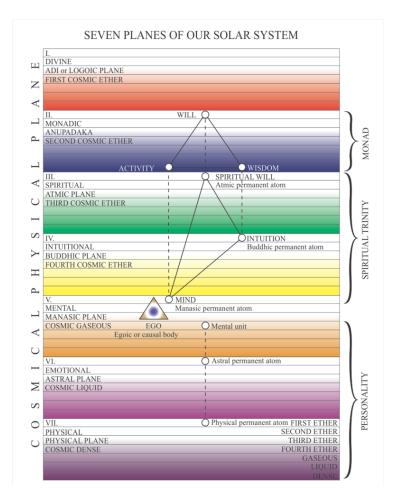
- Physical consciousness
- Vitality
- Emotional consciousness
- Lower mental consciousness

All these states of consciousness are related to the so-called planes of consciousness:

•	Physical consciousness	Lower 3 sub planes of physical plane
•	Vitality	Higher 4 sub planes of physical plane
•	Emotional consciousness	Astral plane

Lower mental consciousness
Lower 4 sub planes of mental plane

For a better overview I am inserting a picture:



Picture 6: Cosmic physical plane, representing the planes upon which man with his seven principles can be found. Note the mental plane (orange) is divided into two parts, upper three sub-planes and lower three sub-planes.

Our personality thus expands through three planes. In my opinion consciousness necessary for the development of science, or rather the consciousness that gives man the ability to express himself scientifically and to perceive the world as a scientist, is the mental plane. This is the fifth plane counting from above down and is also governed by the 5<sup>th</sup> Ray.

There exist strong numerical correspondences between planes, rays, principles, races, periods and other septenates. As  $5^{th}$  Ray governs the  $5^{th}$  plane, the mental, so for example the  $6^{th}$  Ray governs the  $6^{th}$  plane, the astral or emotional, and the  $7^{th}$  ray the  $7^{th}$  plane, the physical/etheric.

Another thing must here be mentioned. Thought is not exclusive to the 5<sup>th</sup> plane of mind. The people who have not yet developed mental consciousness are naturally not devoid of thought. Man can have a developed astral and physical consciousness, yet an undeveloped mentality. It is the *quality* of his thought and the *focus* of his attention that determines what level of consciousness he has developed. An individual with astral focused consciousness is someone who's thought life revolves around his desires, appetites, urges, wants, likes or dislikes, physical activity and emotional relations. An individual with developing mental consciousness expands his thought life to the mental plane. There he slowly and gradually becomes responsive to the world of thought forms existing on the mental plane and begins to explore them. He connects with ideas, feels attracted to some, repelled by others, mostly according to his established preferences that influence his thought life from the astral plane and his astral consciousness.

The basic building block of science is knowledge. What we today term knowledge of humanity can mostly be found on the 4 lower sub planes of the 5<sup>th</sup> plane of mind or mental plane. These sub planes are called the planes of concrete mind, so the knowledge that exists as thought forms on those 4 sub planes is called concrete knowledge. Ideas we have of the world have taken form on these levels of consciousness. Some are ephemeral, small and uninfluential; whereas others are vast constructs, influencing nations, the whole humanity. Some are clear and well defined, some muddled. Some are shifting, rapidly changing and evolving, while others are old, crystallized and unmovable. All of them were created by the use of the form building capacity of the concrete mind. Whenever a thought is conceived, if the mental consciousness is involved, it is connected to some existing thought form, or rather to a whole system or pattern of thought forms. This thought then contributes something to that system, to that pattern of thought forms upon which it is built and so ads some information to the whole. Most of our thoughts contribute but little and have no lasting impact, however if the thinker is potent enough that the thought created by him can sway other thinkers within the sphere of his thought, then a powerful and influential thought form can emerge.

An interesting question here would be how can we distinguish between the scientific thought forms and others and what role does the 5<sup>th</sup> Ray play in this? I would here posit that what makes a thought form scientific is its emancipation from the astral conceptions. As I mentioned before the astral and mental consciousness are closely allied and affect each other profoundly. We have been told astral consciousness is still the most dominant in humanity as a whole. Consequently this means the influence of the astral on the mental is much stronger than vice versa. Our thought life is therefore strongly conditioned by astral, emotional and desire impulses. This is the distinction between scientific and non scientific thought. Scientific thought is not influenced by desire, by preference, by preconception. It is governed by the truth, at least as far as the concrete mind is able to grasp it.

The 5<sup>th</sup> Ray, governing the mental plane is the ray of illumination, whereas the 6<sup>th</sup> Ray governing the astral plane is the ray of idealism. Idealism is an expression of feeling the truth and following it. However if there is no understanding the truth felt becomes twisted and distorted into something usually referred to as glamour. The 5<sup>th</sup> ray gives the consciousness the urge to seek, to penetrate, to unravel, to understand, to relate, basically to know. When consciousness begins to develop on the mental plane and man develops the concrete mind to its full potential, as it is happening now on a large scale, the influence of the 5<sup>th</sup> Ray and its qualities begin to be dominant. Its quality is one of the main impulses that are responsible for the scientific way of thinking.

One of the outstanding qualities of the lower mind is its ability to form *concepts*. It is a peculiar quality that enables the consciousness to form conceptions of things, to recognize their attributes and basically give them existence. For example, we have a canvas where trees and a beautiful sunset are painted. Without the mind if we would look at the painting we would see only a lot of different colors, nothing more, this painting would not make sense and it would not *mean* anything to us. The mind enables us to *recognize* what this painting is trying to convey. The mind enables us to see trees and the sunset and the mind gives us the ability to perceive and recognize beauty. With the help of the mind we are able to recognize what has been painted as objects that have meaning. The mind separates the information conveyed by the senses into concepts, into meaningful objects. These objects are then used as a reference for all our relationships with the environment, tangible or

intangible. We could even argue that we interact with the conceptions of our mind rather than with true objects per se.

I will not digress any further in this direction. It is enough to outline this basic function of the mind, as it has a very important bearing on our topic. The scientific mind, at least as it is presenting itself on this level of human development, represents the pinnacle of this process of conceptualization. This faculty of conceptualization is evolving in two distinct directions. It is becoming more and more inclusive, being able to grasp and work with ever wider concepts, integrating them and synthesizing. And its concepts are becoming increasingly complex, detailed and analytical. Synthesizing faculty would be particularly influenced by 1<sup>st</sup>, 2<sup>nd</sup>, partially 3<sup>rd</sup> and 4<sup>th</sup> rays; the analytical faculty by the 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> ray. This is perhaps the right place to emphasize that no one ray is responsible for the development of the scientific mind; rather all rays in some way contribute to it.

As can be seen on Picture 6 the mental plane is divided into two, the higher and the lower part. There is a great difference in consciousness between them. Esoteric psychology distinguishes between three states of mind. These are<sup>23</sup>:

- Higher mind
  - $\circ \quad \text{Mediating Son of Mind} \\$
- Lower mind

When the consciousness of the soul is contacted, the personality begins to become sensitive to the greater whole wherein it plays its part. On the lower four sub-planes of the mental plane we have the consciousness of the lower mind. The lower mind is one of the pillars of the personality. In many ways it is the polar opposite to the abstract mind. When the lower mind is developed it centralizes the man in his little self, the separated identity known as the personality. It gives him the capacity to act with intelligence and power and so enables him to become a dominant figure, to strongly affect his environment and to use his mind as a creative faculty for satisfaction of his desires and ambitions. I will name a few opposite qualities of the lower or concrete and higher or abstract mind:

Concrete	Abstract
Self-centered	Decentralized
Thought-form	Idea
Separative	Unifying
Analysis	Synthesis
Practical	Conceptual
Fabric	Pattern

These will suffice to present the huge difference between the both types of minds. Both are deeply influenced by the 5<sup>th</sup> Ray<sup>24</sup> governing the 5<sup>th</sup> plane. The breach between them is great. In fact

<sup>&</sup>lt;sup>23</sup> Education in the New Age, *p. 6, Alice A. Bailey* 

<sup>&</sup>lt;sup>24</sup> Rays and Initiations, p. 461, Alice A. Bailey

it can be bridged only by introduction of another aspect of the mind that has been called in occult works the Son of Mind. The purpose of the Son of mind, more commonly known as the soul, Ego, or higher Self, is to link these two aspects of the mind as thus to facilitate the unification of the higher and lower. Therefore the 5<sup>th</sup> ray is known by the names:

- The great connector
- Three-fold thinker
- Door into the mind of God
- Divine intermediary

This has a strong reference to science and its qualities as they are presenting themselves today. Needles to say the strongest influence is the lower mind. Inquisitiveness and the desire to control the environment have long been the driving force of scientific progress. The lower mind also strongly conditioned the approach of science which puts its emphasis on exploring the structure, the form and its building blocks. The quality aspect is not emphasized, it is considered, but is for the most part subservient to the form aspect. An excellent example for this is one of the fundamental theories of science, the theory of evolution through natural selection. This theory almost exclusively emphasizes the evolution of the form through its interaction with the environment. The quality that emerges, or more precisely, seeks to emerge through evolution is secondary; the form, together with the environment, is regarded as the sole conditioning factor that gives quality to the consciousness emerging through the form; even the attribute of conscious awareness is ascribed only to certain forms (from the occult angle it can be observed, that consciousness is attributed only to those forms that are sufficiently close in their evolution to our own consciousness, thereby making the theory of evolution extremely homocentric). One great aspect, that of the purpose or life, which is the second great component of consciousness, is ignored by the theory of evolution and also by science in general. The theory of evolution simply dismisses the questions as to the purpose of evolution, as well as the question of life. This is a clear indication that the theory of evolution was strongly influenced by the lower mind and through this we can also note the strengths and the weaknesses of the lower mind.

With the faculties of detached observation, analysis and deduction the lower mind is a powerful tool in the search for understanding, but to search for the truth, more is needed. The lower mind is conditioned by the observations, upon which the conclusions are made and by the limitation of the perspective from which these conclusions were made. This is one of the influences of the 5<sup>th</sup> ray. The mind under the influence of this ray is capable of extreme focus and penetration. It can focus on extreme details and bring them into light, however by doing that the greater picture is somewhat lost from sight. This is one of the significant strengths of the lower mind-and at the same time is one of its greatest weaknesses. It is able to identify parts of the whole, analyzing them, observing their relations to other parts but it has problems with synthetic thought. The whole therefore becomes a collection of parts, parts that are well known, but their interrelation and their purpose within the greater whole are not.

This is however only one of the mind trinity. Today also the influence of the higher or abstract mind can be seen. Its influence was definitely present within those enlightened thinkers that were able to pierce the limitation of the conceptions in their time and present some aspect of the truth, that today serves as a foundation upon which our scientific world-view is based. It is said not many people have developed the higher mind in its pure form. Most of the advanced thinkers came into contact with it via the soul or Son of Mind. The ones that did develop the higher mind and are expressing it fully are called Masters. The higher mind is that which encompasses the forest, rather than the trees although, possessing perfect knowledge on the trees as well. The higher mind is that through which we come into contact with our greater whole, with that loving intelligence that connects us all and is expressing itself through our higher aspects.

Higher mind does influence the science of today in some ways. It is the driving force behind the urge of the science to find that unified theory, that which will enable us to solve the puzzle of the whole, that which drives the scientists of today to go deeper, and to meticulously encompass the totality of everything. Needles to say, where the lower mind is a fully formed fire, the higher mind is still a little more than a flicker. To connect both of them another spark must first be fanned into a flame.

For connecting the higher and the lower mind an intermediary had to be formed. This is the Son of Mind or soul. Perhaps in this moment of history this is the most important aspect of the trinity. The lower mind is very rapidly being developed and is the most influential factor right now in the three worlds. Due to its strong connection to the desire aspect of the personality and the physical plane, this situation is creating great disruption, which we can observe in all the departments of humanity's life. Separativeness, selfishness and the desire to control, that are the expressions of the lower mind, and consequently of a strong integrated personality, are very present, particularly in politics and in the field of religion. It is interesting that the field of science exhibits less such tendencies than in other fields. Science has managed to overcome its internal differences. A theory proven by an American scientist for example is accepted without reservations also by his Russian colleague. Science knows no nationality, knows no deep internal cleavages so deeply present elsewhere. This is an indication that the influence of the soul in the general field of science is strong, perhaps stronger than in any other field. The soul is the great unifier. Whenever there is conscious unity, there is soul influence. The Soul is connected to the so called Heart of the Sun, esoterically meaning the soul of the Logos of the solar system<sup>25</sup>. The Logos is on the 2<sup>nd</sup> ray of love-wisdom and thus also the soul is strongly influenced by this Ray. Within the higher trinity it is the second principle, that of consciousness or the soul, that is responsible for the relation between the first and the second aspects, that of life and that of substance. This grand picture is reflected also on the plane of mind between the 3 aspects of the mind.

# Ray 2

The 2<sup>nd</sup> Ray of Love-Wisdom conditions everything within the solar system all the time. Being the ray of the solar Logos it embodies that quality that must eventually pervade everything within His sphere of influence. As everything else also the 2<sup>nd</sup> Ray has its cycles of greater or lesser impact upon our little sphere of Earth. In this period its influence is waning.

<sup>&</sup>lt;sup>25</sup> Rays and Initiations, p. 97, Alice A. Bailey

The 2<sup>nd</sup> Ray entered into manifestation around year 1575, has in the mean time reached its climax and is now slowly retreating. Since this is the ray of bringing together, of magnetic impulse, of unity, I believe this influence was largely responsible for creation of the vast hubs of knowledge we call universities. The first universities began to appear in the 12<sup>th</sup> century in Italy. At the end of the middle Ages there were 29 universities in Europe. In the 15<sup>th</sup> century alone 24 new ones were founded.

Interestingly with the decline of 2<sup>nd</sup> Ray influence universities became more specialized. Furthermore universities of today are divided into faculties with certain autonomy and each faculty is focused around a specialized field of science. Of course this is also a result of a tremendous increase of overall knowledge, however the tendency towards extreme specialization is apparent. The result of this is the emergence of very specialized thinkers, which lack that synthetic overview. This poses a narrow vision that can embrace only a specialized field, but not a wider view. This narrowness is definitely the result of the dominance of the 5<sup>th</sup> Ray, augmented by the 6<sup>th</sup>, over the 2<sup>nd</sup> Ray, which brings in inclusiveness, meticulous entirety, wide vision, transdisciplinarity and connectedness.

The 2<sup>nd</sup> Ray also perhaps influenced the universal acceptance of scientific truth by the whole scientific community, regardless of its origin. The only importance for some truth to be accepted by science is that it has been obtained through the use of the scientific method, all other considerations are secondary. If a theory is proven, it is accepted, simple. Do we know perhaps a religion that is without reservations prepared to confirm, recognize and accept a truth posited by another religion? I believe not, at least not with the major religions. The 2<sup>nd</sup> Ray gives that wideness of vision, that capacity to go beyond the form and appearances. It promotes the faculty to touch upon the meaning and to relate that meaning with other meanings that share the same core ideas, but are embodied differently. This is also a faculty of the soul, which is always connected and conditioned by the 2<sup>nd</sup> Ray of the solar Logos. This fact is very important for the 2<sup>nd</sup> Ray colors everything and is also the influence behind our urge to know, which is also the driving impetus behind all science.

Science is the only aspect of our culture that is truly unified and that is without wide cleavages and internal conflict. This can probably be attributed to the effects of the 2<sup>nd</sup> Ray and the closeness of the intelligentsia to the soul levels of the mental plane which makes them more receptive to the soul qualities, qualities that are again conditioned primarily by the 2<sup>nd</sup> Ray.

### Ray 3

The 3<sup>rd</sup> Ray of active intelligence has also been with us for a long time, since 1425. And being the ray that governs the personality aspect of the planetary Logos, together with the fact all matter is attuned to the active intelligence, it is clear this ray has tremendous influence on all the manifestations on our planet, including science.

The 3<sup>rd</sup> Ray is connected to the third aspect of creative intelligence or as the Hindu call it, the Brahma aspect. It is most profoundly connected with manifesting that which exists within the mind of God or the Universal mind. The 3<sup>rd</sup> Ray is the link between the abstract idea and its manifestation. Its influence stimulates the already latent intelligence within matter and causes it to organize, to

coordinate and to become a suitable building material for anything the Thinker or the Soul desires to create. Little do we realize, but creation, true creativity, is a scientific process. Creativity follows the law that connects the idea with the desire to create and finally the process of creating. What is science, if not to understand the law of things? This would mean a true creator must also be a scientist and that deep behind the urge for scientific development lays the impulse of the Thinker to create, to manifest an idea. The 3<sup>rd</sup> Ray plays an important part in this. On one hand it stimulates the creative faculties of the little creator, man; on the other hand the latent intelligence in matter is stimulated, so that it becomes more receptive and more fitting for integration in desired forms.

The 3<sup>rd</sup> Ray presented an important stimulus for the development of the abstract faculties of man. Its influence was particularly strong in the west where the races are more inclined to emphasize the form side, the organizational and commercial qualities. It was also influential in China where in the middle ages the scientific advancement was centuries ahead of the European world. It was probably also the second main ray influence that caused the commercially inclined Arab people to develop their flourishing civilization. Its influence was one of the main impetuses for the age of renaissance, the age where the church dogmas and deeply 6<sup>th</sup> Ray influenced civilization began to transform itself into a society in which science could begin to develop.

How deep the influence of the 3<sup>rd</sup> Ray is can be seen also in the very nature of contemporary science, its qualities and motivations. In the last centuries science has mostly focused around natural sciences and their study of concrete natural phenomena. The subjective side of things was considered of lesser importance or even ignored. Lately however this is changing, particularly through the emerging science of psychology and the fledgling esoteric sciences that will in time also prove their worth to the broader scientific community. The emphasis on the form, its organization, its structure, its internal processes and its relation to other forms, suggests strong influence of the 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> Rays. Before the present age of science the emphasis was on the subjective side and due to the strong influence of the 6<sup>th</sup> Ray, this emphasis was extreme. Now the situation is reversed and the emphasis is equally strong on the form side. The 2<sup>nd</sup> Ray influence was present and did play its part in the unity of scientific community, a unity that has never before been established in no field of human endeavor, so it could be expected that the subjective would receive more emphasis. However the 3<sup>rd</sup> Ray still presents the line of least resistance and in conjunction with the 5<sup>th</sup> and the 7<sup>th</sup> Rays the scales tipped strongly on the form side and we have consequently a world where science occupies itself predominantly with the surface and organization of things and not so much with the soul or purpose of things.

In science we can also observe two things that are connected to the 3<sup>rd</sup> Ray influence. First is the desire to manipulate the environment so that it suits our needs. This is a still very imperfect expression of our divine natures. Spirit must conquer matter and bend it to its purpose. With the help of science we are conquering the physical plane. The third ray influence stimulates the capacity to use all available possibilities to the best of our ability for creating that which is desired, and if no possibilities exist, to create new possibilities. The second is the commercial aspect of science. Science predominantly goes there where the money is. And what is money if not concretized energy of our desires on the physical plane. The 3<sup>rd</sup> Ray influence can be seen in the variety of our creations and scientific endeavors. We are searching all possible avenues, trying to improve in every direction, to exhaust all possibilities. Sometimes we succeed, many times we fail, but the vastness of our activities allows us to eventually eliminate the undesirable and find our way forward. The 3<sup>rd</sup> Ray is the

promoter of activity and causes that through the activity we develop intelligence. To be intelligently active we need knowledge and science is the path to that knowledge.

### Ray 6

This Ray is rapidly leaving manifestation, but is at the same time the most influential Ray of the past few millennia. It is usually connected to the religious expression however as it is with all the rays its influence extends to all the pores of the society. One of the prime achievements of its influence during the last world period is the focused dedication that is now deeply present in all what men do. Regardless what we devote ourselves to, we are devoted, persistent and passionate to achieve our set goals. This quality also left its mark on all the scientific endeavors. Today's scientists are working on their chosen fields of endeavor with all their hearts and put everything they have into it. Without unflinching devotion manifestation of results is much more difficult and slower. 6<sup>th</sup> Ray brings in the power to penetrate, to break established patterns in light of the sensed ideal, and the indifference to that which does not conform to the ideal. These are some of the higher aspects of the 6<sup>th</sup> Ray and science is one of the fields where these higher qualities definitely took root. The manifestation of the 6<sup>th</sup> Ray through science is perhaps one of the highest manifestations of this Ray within humanity. Perhaps due to the affinity between the 6<sup>th</sup> and the 2<sup>nd</sup> Rays the influence of the 2<sup>nd</sup> Ray did manage to offset some of the pronounced narrowness of view the 6<sup>th</sup> Ray influence brings in. As mentioned before the scientific field singularly lacks that separativeness, sectarianism, isolationism and exclusiveness evidenced on all other aspects of the society.

Exclusiveness is however present in scientific circles. To a minor extent it is present within the scientific community itself where established senior researchers or prominent institutions prevent others not so influential to penetrate with their ideas. Rivalry, pride, greed and lust for power and influence are present in scientific circles and do present a great obstacle for new and fresh ideas which would change the paradigm. One of the major 6<sup>th</sup> Ray influences is the idealization of science itself and refusal of admitting the same worth to ideas that are in the eyes of the scientist non scientific circles. What is not in line with established scientific truths and established theories, especially that which would challenge those theories and force them to be adapted in the light of some greater truth, is fiercely opposed and ridiculed. Science and the world view it established present a giant thought form that is at this time responsible for much world illusion and does prevent new knowledge from reaching the wider public recognition. The 6<sup>th</sup> Ray plays an important role in this as it binds the consciousness to some ideal and makes it reject everything that is not in line with it or is opposing it.

On the other hand the 6<sup>th</sup> Ray played an important part when the scientific world view was establishing itself. This Ray gives a sense of conviction like no other. Without an adamant conviction and faith it is questionable how many revelations of science would break through, particularly in those darker times in the past when the religious world view dominated. It was the impulse of the 6<sup>th</sup> Ray that gave the scientific world view the strength to establish itself and to slowly dominate the outworn forms of the religions. The conflict between science and religion is an ancient one. The

dynamic of it is influenced by all the rays, but particularly by the rays of attribute, which are the Ray 4, 5, 6 and 7.

The last age was dominated by religion, the coming age will be ruled by science. We can only hope the aversion between science and religion that has established itself during the last age will be mitigated by the awakening soul influence which will eventually merge the religious and the scientific, the mystical and the occult. If we look how men and women of science were treated during the last two millennia it is understandable that under karmic law science now renounces religious views as fiercely as the religions rejected scientific revelations in the past. The pendulum that now swings in the direction of science, to the detriment of religion, must be brought to a standstill or great damage will be done. Balance must be sought and perhaps the influence of the 7<sup>th</sup> Ray will be able to provide us with the qualities needed to bring this about.

I might also mention that it was the 6<sup>th</sup> Ray responsible for the emerging science of psychology:

"The sixth ray influence produced the appearance of the modern science of psychology, and that science has been its consummating glory. The seventh ray influence will carry forward that infant science to maturity. Belief in the soul has become widespread during the sixth ray period. Knowledge of the soul will be the result of the incoming ray activity, plus the aid contributed by the energies released during the incoming Aquarian Age."<sup>26</sup>

# Ray 7

We are entering into an age of the 7<sup>th</sup> Ray. This will be the most influential ray in the following period and its presence is already strongly affecting us as it entered into manifestation in 1675 AD. It is said much will be changed in this new world period. New forms of society will be created which will be able to more fully express the information from the higher planes, particularly from the soul. The 7<sup>th</sup> Ray is a ray of organization, arrangement, order and coordinated interplay or ritual. This quality will enable us to build desirable forms with greater facility and accuracy. Dwhal Khul put this in the following words:

"If you bear in mind that one of the major objectives of seventh ray energy is to bring together and to relate spirit and matter and also substance and form (note this distinction) you can see for yourself that the work of science is closely connected with this endeavor and that the creation of the new forms will definitely be the result of a working interaction between the rulers of the fifth, the second and the seventh rays, aided by the help — on demand — of the ruler of the first ray. A large number of seventh ray egos or souls and also of men and women with seventh ray personalities are coming into incarnation now, and to them is committed the task of organizing the activities of the new era and of ending the old methods of life and the old crystallized attitudes to life, to death, to leisure and to the population."<sup>27</sup>

<sup>&</sup>lt;sup>26</sup> Esoteric Psychology I, p. 364, Alice A. Bailey

<sup>&</sup>lt;sup>27</sup> The Destiny of the Nations, p. 29-30, Alice A. Bailey

This of course will also affect profoundly the scientific field. The 7<sup>th</sup> ray is the dominant ray influence and ruler of the 7<sup>th</sup> Plane, which is the only plane where we as yet have developed full consciousness and sentiency. We are however conscious only on the lowest three sub planes, called from below upward the dense, the liquid and the gaseous subplane of the physical plane. This leaves us with 4 higher sub planes which are esoterically called the etheric planes. As the emphasis in the past era was laid on the development of the astral consciousness and its right orientation, under the influence of the 6<sup>th</sup> Ray and the zodiacal energies of Pisces, so the emphasis in the new era will be on the physical plane, particularly its etheric part. This is very important in respect to our consideration of science and its possible developments. Here under this heading we will particularly observe the future possibilities of development, as this 7<sup>th</sup> Ray will largely determine the quality of our future. The next step for scientific discovery will therefore be the etheric plane. With the discovery of radiation steps in that direction have already been made. The main problem is the equipment used for scientific observations, including the huge hadron colliders like the one in Cern Switzerland are made of matter of the dense physical plane. An instrument made from such a material is not sensitive enough for etheric energies. Progress will come when an etheric counterpart will be added to the equipment. The science of electricity and magnetism will bridge the gap.

When science will confirm the existence of the etheric plane, which is in fact still physical, this will mark a revolution for the whole humanity. This revelation will not only open up a new plane for scientific researchers, but will also anchor in the human awareness the fact of the existence of super mundane worlds, if I use this term presented in Agni yoga teachings. This will transcend our notions of reality and open our minds to all the possibilities the religions of old have taught, couched in mystical language. This will definitely also bring science and religion closer together and make intellectuals more appreciative of the old teachings, seen now in different light.

However such revelations as yet lie in the future. To gauge where we lie in certain developments the following points are of value<sup>28</sup>:

- 1. The sensing of an ideal.
- 2. The formulation of a theory.
- 3. The growth of public opinion.
- 4. The imposition of the new and developing pattern upon the evolving life.
- 5. The production of a form, based upon that pattern.
- 6. The stabilized functioning of the life within the new form.

When considering development on some particular field of science or some other, we can ascertain for example how far we are from full manifestation by asking ourselves, which of the above points best describe the current situation. Is for example the existence of the soul as yet only an ideal, or do we already have theories of it? What does the public opinion say about it? If we as individuals are aware of the existence of the soul, how does this awareness affect our lives? This is only an example.

What the intent for the development of science during this age of the 7<sup>th</sup> Ray is can be seen if we take a look at one of the groups Djwhal Khul intended to form. This groups name was Scientific Servers:

<sup>&</sup>lt;sup>28</sup> The Destiny of the Nations, p. 58, Alice A. Bailey

"The work of the seventh group, which is in the field of science, is closely allied to that of the seventh ray and is one with a most practical physical purpose....

... This group of disciples will make a close study of the problem of evil, and they will bring about a better understanding of the purpose existing in matter or substance, and the inflowing enlightened and different purpose of the soul aspect. That is why (in my earlier discussion of the subject) I linked the results of religion and of science together; religion is concerned with the awakening to conscious purpose of the soul in man or form, whilst science is concerned with the activity of the outer form as it lives its own life, yet slowly becomes subservient to that purpose and to soul impress. This is the thought contained in the words "scientific service" as used by me. The work of this group is therefore a triple one:

- 1. They will take the most advanced inferences of the workers in the field of science, and will then formulate the new hypotheses upon which the next immediate steps forward in any particular scientific field will be founded.
- 2. They will avail themselves of the sensitive reactions which the new spiritual Approaches (as taught by the world religion of the time) will have made possible and—utilizing the inferences thus made available in connection with the inner world of spirit—will outline the nature of the incoming forces which will determine and motivate the culture of the time.
- 3. Taking the substance or material, and the spiritual inferences and the scientific hypotheses, they will formulate those forms of service on the physical plane which will precipitate with rapidity the Plan for the immediate present. They will release through this blend of scientific knowledge and intuitive idealism, those energies which will further human interests, relate the subhuman to the human through a right interplay of forces, and thus clear the way of those intellectual impediments which will (and always have) blocked man's approach to the superhuman world."<sup>29</sup>

The future will hold many wonders in store for us and these will be revealed by scientists.

The 7<sup>th</sup> Ray however has been already with us for the last 340 years. Its influence on science has already been profound. One of the most significant influences was the discovery of radioactivity and the splitting of the atom. All the areas of science have been affected by this influence. We can observe, that science moved from considerations of the subjective and the divine, as was the case in the last 6<sup>th</sup> Ray influenced era, to the surface of things. Science of today is very materialistic, very focused on the form and its interrelations with other forms, on structure, on dissecting complex mechanisms and reducing them to their parts, on analysis, logic and mathematics. Influences of the 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> Rays can be seen here. One of the outstanding influences of the 7<sup>th</sup> Ray is the strict adherence to the scientific method. These rules, or should I call them rituals, are at the very core of today's science. The theory that withstood the test of the scientific method is accepted. The discipline science evidences is definitely one of the earlier great achievements of the 7<sup>th</sup> Ray influence.

However as is the case with all the rays when coming into manifestation, the first effects are far from being only good. While organized the scientific academic community of today is also very rigid.

<sup>&</sup>lt;sup>29</sup> The Externalization of the Hierachy, p. 56-58, Alice A. Bailey

There is little room in it for free thinkers, out of the box ideas, openness towards the so-called non scientific and non academical. The more subjective aspect of manifestation is for the most part ignored, particularly in the natural sciences. The importance of form is being glorified. Systemic views are as yet rare, although this is changing. In observation the contribution of the observer is being ignored, except in physics where this illusion is slowly being recognized. Many of these flaws are influenced by a lower influence of the 7<sup>th</sup> Ray.

Since the 7<sup>th</sup> Ray influence also contributes greatly to organized group work on the physical plane, this is also evidenced within the field of science. The days of the lone brilliant researcher are over. Now we have large research centers where teams of scientists are working on their specific tasks. The cooperation in science is exemplary, one that is setting the bar for all other fields of human endeavor.

# Conclusion

The aim of this paper was to show how various rays affected and are affecting the field of science. With our present knowledge of the 7 basic tones of the universe it is difficult to ascertain how they weave their patterns into the fabric of our reality. But the faint traces of the melody can be heard, the pattern of the main themes outlined and their rhythm gently felt. Science and the development of mind that made our present scientifically inclined civilization a reality was definitely colored by these great qualifying streams. Much remains to be discovered of the dynamic of how the rays influences work. As our knowledge of them grows, so will our capacity to intelligently cooperate with these global influences. We will then progress intelligently and considerately, and the cosmic intent will find a more responsive humanity, able to dance easily to its symphony.

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