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Macroscopic Immunology

Macroscopic Qigong Immunology

Scientific and technological modernization is the linkage of the Four Modernizations. As natural, technical and social sciences increasingly permeate each other, modern science more and more shows its dual characteristics of being natural and social. Or putting it in another way, in a broad sense, modern science and technology include the content of social science. Generally speaking, the study and disposition of natural and technical sciences constitute the interrelationship between man and nature, whereas what social science considers is interrelationship between humans. Now, the two in many respects are being fused into an integral topic. Technical economics, management sciences, systems science and systems engineering - these many fields are intersections of natural science and technology with social science, particularly in the speedy developing of new technical science groups (computer, space and nuclear science technologies and biological engineering technology, etc.). As a result, many scientific experts and engineering technicians now face a rigorous tasking of their knowledge.

Today, what people call modern science and technology primarily refers to that at the end of the 19th and the beginning of the 20th centuries. Some roughly estimate that the obsolescence cycle of scientific knowledge where the two centuries border on each other is about thirty years, but at present this cycle has shrunk to half of that. The cycle for rapidly acquired knowledge in some disciplines has been reduced to ten or even five years. It has been learned statistically that the indexed growth pattern of increased documented science and technology averages a major turnover every ten to fifteen years. In the 1980's, the annual rate of increase in scientific and technological knowledge reached a high of 13%. If Engels felt long ago that the rate of scientific development in his time was so fast that he had trouble keeping track, then today's rate of increase in scientific and technological knowledge is even harder to catch.

World economic and social competition today among different nations with different systems in reality is competition in science and technology and ultimately

competition for knowledge. Man's science and technology seek economic gain, demanding the knowledge to acquire such and social progress. Science and technology are productive forces. In a certain sense, knowledge is also a productive force. Science and technology are knowledge, but knowledge has a broader face, for all the spiritual wealth created by mankind falls into the category of knowledge. In broadening the meaning of science and technology, the meaning of the concept of knowledge is also broadened[1].

The farther away people are from scientific achievements that arouse their excitement, the better able they are to gauge the actual magnitude. Time is an excellent measurement of the value of a certain scientific discovery. Aristotle was a great philosopher of ancient Greece, the man who originated formal logic. His syllogism even today is still the basic principle of logical reasoning. In the last two hundred years, by which time study of logic had been stagnant for about a thousand years, there has been dazzling progress. Boolean algebra, mathematical logic, etc. established new milestone after milestone in the study of logic. Even so, from where we stand two thousand years after the fact, Aristotle's contribution remains a tall mountain in the history of the development of logic.

Scientific theory is built on logical thought and reasoning. Any scientific theory is a neat and orderly mansion built by logic. This is especially true with mathematics, the most stringent and mobile of the sciences. After Aristotle produced formal logic, geometry was the first to become such a mansion. The foundation stones of this mansion are the geometry laws acknowledged to be true without having to be proven, but the bricks that are joined together to form the structure are made of logic. Mathematicians can start off with a small number of acknowledged truths and, after logical reasoning, lead to all the geometric theorems; this was the greatest scientific achievement of the time -- the Euclid geometry system. This theoretical system exerted a massive influence upon scientific theory that followed; after the 16th - 17th centuries, scientists gradually came to recognize and utilize Euclid's geometric structure to build similar theory systems of extraordinary clarity and foresight. Concerning scientists, the purpose of establishing this kind of system was to use hypotheses that resembled generally acknowledged truth and included the discipline's current knowledge to forecast into the future; thus we would gain even more systemic and deeper understanding of the natural world.

In 1930, Austrian mathematician Kurt Godel published an article, "On Formally Undecidable Propositions." This thesis held that there could not be a completely non-contradictory logical system, i.e., even concerning some very simple

formal systems (such as elementary mathematical theory), after arriving at acknowledged truths and logical reason, even if the system has no contradictions, there are still questions that cannot be proven (i.e., decided). Since we cannot use common truth or logical reason to determine whether they are real, nor can we prove them to be false, then they are undecidable! As when previously we had to try to prove such undecidable questions, then we must add to the acknowledged truth, but after the new truth is brought in, the whole system still has no contradictions, then new new undecidable questions will emerge, otherwise the entire system's consistency will be broken. This is the content of the "Godel Theorem of Imperfection," that a logical system without contradictions cannot be perfect.

Because Godel belongs in the new era of the computer and artificial intelligence. In this era, man became deeply interested in the profound mysteries of thought, and changed tremendously in how he looked at the world. In 1936, the famous British mathematician Alan Turing brought out an ideal calculator, the "Turing machine." He ingeniously proved mathematically that an omniscient and omnipotent calculator could not exist. This way of thinking resembled that in Godel's topic. Turing proved that there were a number of problems that a calculator would not be able to solve; for example the Turing machine could not determine whether it itself was in operation; later, some new undecidable problems gradually were discovered. Today, or perhaps before the fact, Godel's theorem has become one of the foundations of man's search for the mysteries of thought, planning of the computer and the study of artificial intelligence.

Study of the history of science has shown that within the entire domain of science, the development of scientific theory has not become a perfect and closed system after its presentation. The task of scientists is to start from this theory and explain those problems that were presented. Godel's theorem proved that a theoretical system's perfection and lack of contradiction were mutually exclusive of each other. The history of science also shows that the major reason for the near majority of theoretical systems' self-contradiction and dissolution was the result of pursuing perfection relentlessly. Actually, any type of theory in the scientific domain, in chasing after perfection, trying to solve all problems proposed by the system, often is forced to invoke new hypotheses, new foundations. This new truth has the capability to destroy the consistency of the original theory system, ultimately affecting and changing the entire theory. Godel's theorem started out from a general basis, proved that any theoretical system's lack of perfection was not only normal with respect to physics, chemistry and other natural scientific theories, but also applied to the more

stringently pure mathematics and logic. This proved precisely that man's ability to understand had a type of dynamic kinetic power. Man has used a theoretical system to explain the world, but when building this theoretical system, he will in time surpass it. Thus in dealing with each problem it can be predicted that "if we must know, we shall know." (Herbert - transliteration) was right.[2]

The concept that has most deeply influenced traditional Chinese scientific theory possibly is the Ying and Yang (negative-positive) doctrine of Passage of the Five Natural Elements. Possibly, the birth of this doctrine was closely related to the astronomy observations in ancient China, to agriculture, treatment of illnesses and other such practical production and science. In the primitive version of this doctrine, the idea of Ying and Yang can be found in the Zhou period's I Jing, or Book of Changes. The I Jing was a method of divination in the time of the Zhou dynasty. What remains in it includes the incantations that recorded the divinations, the diagrams and phrases of the I Jing (around the first years of the Western Zhou period or about 1120 B.C.), I Zhuan, or Chronicle of Changes which explains the I Ching (the last years of the Warring States period and the start of the Han dynasty or around 203 B.C.). Zhuang Zi (around 300 B.C.) in his "Essay on Earth Under Heaven" referred to "change as the road to Ying-Yang." The I Jing used the Ying symbol of -- and the Yang - to form into the Eight Diagrams, further evolving into the Sixty-four Diagrams of divination signs, and used these Ying-Yang intersections to divine fortune or disaster. Granted that this was superstition, but superstition frequently has been the forerunner of science. Within the divinations of the I Jing were the seeds from which scientific thought sprouted.[3]

I Zhuan stressed the pattern of "constant change" of "I" or change, but the cause of all formulations and changes are attributed to the effects of Ying vs. Yang, hardness vs. softness, movement vs. stillness, all opposing each other and pushing each other so that one or the other grows or shrinks. One of the diagrams describes it as the "two Qi of Ying and Yang respond to each other...Heaven and Earth feel it and a million things are created." In the last stages of the Warring States period, the philosopher Xun Kuang pointed out in his Essay on Heaven that the "stars revolve, the sun and moon beckon and repel each other, the four seasons wax and wane, Ying and Yang affect each other, wind and rain struggle and a million things receive its harmony and are born." The Eastern Han (25 A.D. - 220 A.D.) philosopher Wang Chong followed up, developing the parts of the Passage of the Five Elements and the Ying and Yang of the Qin dynasty (203 B.C.) that were connected to the two-Qi theory, and consolidated the two Qi into a substantive primeval vitality or Yuan Qi, and then claimed it to be the original source of

all things in the cosmos. From this was established the system of Qi as the primeval entity. Wang Chong in "On Equilibrium" stated that "Man would not have been born in a dead primeval Qi; in an agitated or unclear primeval Qi, Man's Qi will exist." Wang Chong not only considered the two Qi of Ying and Yang that gave birth to all things to be combined into a substantive primeval Qi, but speculated over the indestructability of material things and the world's timelessness. At the time, this was a precious scientific hypothesis.[4]

The Doctrine of the Five Passages reached its flourishing highest during the Western Han period, and gradually declined after that. But those of its factors that seemed reasonable, particularly the "Qi as one primeval power theory" of Wang Chong and such let its influence permeate through almost every scientific territory. China's famous ancient scientists such as Zhang Heng, Yi Xing and Shen Kuo all were experts in the Five Passages theory. Shen Kuo's famed "Penned Comments of Dreamed Streams" devoted seven sections especially to describe and comment on I Ching and the Ying-Yang Five Passages. To a certain extent, the Five Passages is the summation of ancient China's natural science in practice, which then exerted its influence in encouraging and guiding the formulation and development of Chinese traditional natural science theories. The Five Passages doctrine to a certain degree has broadly affected all of ancient China's natural sciences, and in particular clearly and deeply influenced ancient Chinese astronomy, chemistry and medical science. And its influences in these sciences caused man to form clear concepts concerning mankind, biology and non-living matter and their interrelationships withn the cosmos such as regarding astronomy, cosmic science; mentioned were the union of Heaven and Earth's essence (harmonious Qi) as Ying and Yang, the special essence (pure Qi) of Ying and Yang as the four seasons, and the dissipation of the four seasons (scattered Qi) as all things. Or, such as scientist Zhang Dai (Song dynasty) explained that the cosmos' myriad beings included Heaven, Earth, Sun, Moon and the stars. They assemble and disperse, are created or destroyed, a definite pattern: "Qi gathers and scatters, it has no birth nor death;" the Great Void cannot be without Qi, Qi cannot avoid gathering to be all beings, the beings cannot avoid scattering into the Great Void, so entering or leaving are not by one's own will." To understand the theory above, it may be necessary to break down to separate disciplines for study and proof, so that its effects, capabilities and theoretical foundations may be discussed from different angles.

Reference Documents

1. Jie Qiang Book of Knowledge p. 2, February 1985

2. Jin Guantao "Godel's Theorem and the Meaning of Its Profound Methodolgy" op. cit. p. 7.

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Chinese Qigong and Modern Medical Science

Feng Lida
November 1986

Because the new technological revolution, especially in biological technology and the life sciences, is now being widely applied in the domain of medical science, control of the procedures in their various branches dealing with life has aroused extreme social concern. Strength of public feeling extending into non-human areas has presented newissues for us.[1] The new technological revolution has created a tremendous impact upon medical science, The changing pattern of medicine has also deeply influenced medical science. Therefore, the breadth and depth of medical knowledge now has a greatly different intrinsic quality from that of the past. The composition of its basic knowledge now includes the natural and social sciences. Scientific development and the increasingly evident interflow among the various disciplines that hitherto had not been closely aligned to medicine are getting closer and closer. As the basic knowledge that medical science relates to is expanded evermore, the expansion of basic knowledge extends horizontally leading to massive changes to the structure of knowledge.

In view of these changes, a current discipline puts on a new face because of the interflow of different disciplines. We must understand its most important models which can be roughly divided into six: 1. peripheral disciplines, the most important of which come from the interflow of two or three different disciplines, permeating into each other but forming into a discipline on the periphery; 2. transverse or cross-sectional, material of different structural arrangement forming a discipline and becoming a common study subject; 3. composite discipline, a specially designated problem or subject for study; the complexity of the problem precludes the possibility that any one discipline could complete the study task and so it needs

a combination of the theories, methodology and technological procedures of many disciplines before the problem can be solved; 4. soft science, referring to a number of higher disciplines that have a high degree of intelligence and capability for synthesis; the objects of study not only include natural phenomena, science and technology, but also the various interrelationships and effects of social phenomena concerning man and social factors; 5. comparative science, the overall term for various comparative disciplines; and 6. all other new disciplines.[2]

According to the above and the development of science, the composition of professional medical knowledge follows the patterns of change in biology, psychology, sociology and medicine, changing the composition of the original professional knowledge. The utilization of new technology also has brought many problems, such as how to cope with new situations, requiring the medical world not only to understand and be familiar with basic and utilitarian medical science, but concurrently to understand technological knowledge.

Compilation of technological knowledge has now become a sine qua non for medical personnel; with the development of the new technological revolution, the dependence of medical science upon science and technology has become even more apparent; each such transplantation of science and technology into medicine evokes modernization of diagnostic and healing measures, thus was born X-ray fault scanning by computer, nuclear-magnetic resonance, B-type supersonic and other diagnostic equipment.

In the formulation of the new technological revolution, the medical world must also establish a proper view of nature, be concerned with theories on information, systemics, control, structural dissolution, solar harmony, mutation and other theories related to social sciences as well as the various relationships between the whole and the part in the study of the human body, and that between high and low orders, including human physiology, psychology. The links between man and the environment all have great significance. We can see from the circumstances described above the appearance of shapes that can appropriately react to the new science and technology.

Today is the day of the new scientific and technological revolution. In the face of new happenings every day in this revolution, productive force develops quickly. One by one, old concepts are discarded; people's trains of thought and fields of vision also undergo many changes. After having been tested and applied, new theories and disciplines make their appearance one after the other. The appearance of these disciplines occurs in the face of mankind's constant development of the science and technological revolution; their points of view and thought

gradually extend farther and wider and gradually become globally familiar. Viewed from a combined cosmic and human angle, space (two dimensions or even three dimensions) and earth, even the interrelationship among the particles inside the human body have a definite connection to microcosmic psychology and thought. Under these circumstances, one can gradually become aware of the existence of the individual and of the group, immunization, health, recovery and their close connection and relationship to all within the social domain such as productive forces, education and human talent.

Now that the time of the new science and technological revolution is here, it cannot be separated from the development of the history of science. Reflecting back on another aspect of the history of scientific development we can categorically consider mathematics as the foundation and instrument of development of physics, astronomy as well as engineering technology; and mathematics has been able to follow technological needs and further develop itself. For example, the methodology of the innate laws of classical mathematics, that of probability statistics in statistical mathematics, indistinct mathematics' blurred methodology, planning in biological mathematics, etc. all have been developed in the midst of studying practical problems in science and technology. Their common pattern is: "actual problem -- mathematicization (quantitative analysis) -- mathematical model (qualitative analysis) -- feedback and revision (practical tests) -- determine theory."

Medical science is no exception, when Blair studied nervous excitation problems, he used mathematical physics methods to establish differential equations that led to the medically famous nervous stimulation theoretical formula; without mathematics there would have been no such theory.

The pattern of modern mathematicization is going through even greater development pushed by the waves of the new scientific and technological revolution. The title of the thesis of mathematician Jerne (transliteration), 1985 Nobel prize winner for medicine, was "The Theory of the Immunization Network," in which he proposed a new matrix for modern medical academic disciplines:

"Medical immunity problems -- mathematicization (knowledge expressed through technology) -- computers complete calculations and proofs (mechanization infers technology) -- feedback and revision (practical testing) -- Immunization Network Theory (system builds technology)."

This modernized matrix for study disciplines combined profession, mathematics and computer into one body and would push modern science and technology progress sharply. Marx long ago said, "a kind of science can really reach a stage

of perfection only when it has successfully applied mathematics."

Mathematics has yet to acquire importance in our country's medical circles. In the 1950's when institutions and departments underwent realignment, medical schools were split out to be independent of the consolidated type of university, but conversely, the science departments were weakened and few studied mathematics. In 1981, class hours of higher mathematics began to be returned to that in 1954, only enough to talk a bit about calculus. The Western nations were learning modern mathematics, such as biological mathematics, indistinct mathematics, mutation theories, programming, networking analysis, prioritization theory, etc. Our country's medical science must urgently work hard to catch up in these areas; otherwise, we may be as some experts in our country have said, "Our medical authorities today cannot understand the theses in one-fifth to one-third of the world's major medical journals because they contain large quantities of mathematics." Comparatively few of our own medical journals have used higher mathematics to express formulae. Historically, our country had been a king in medicine and also in mathematics; in the widespread interflow of different disciplines of today, if we would apply mathematics to our country's unique medical science, there could be even greater developments, and in terms of application to the various disciplines, could make an even greater contribution to the sum total of disease prevention and world medicine.

Medicine is an applied discipline. In the areas of basic theory and clinical application, correct evaluation of disease causes, transmission, treatment results are key to applied science, and are also among the most important factors to point applied science in the correct direction. This kind of correct evaluation requires applying different modern sciences including mathematics that can synthesize the analysis of problems in order to extract true material after separating false from true.

Elements that cause sickness or recovery in organisms are very complex. They take form influenced by the synthesis of many different elements. Clinical symptoms, body condition and laboratory data can be the synthetical expression of physical and chemical phenomena, or joint presentation of the two. Thus, our immediate task is to search for laws of immunity physics and immunity chemistry by first considering the connection between physical and chemical phenomena (including biophysical and biochemical phenomena), the principles and methods of applied physics, study of chemical change and study in depth the connection between the laws of chemical and physical changes. The idea of immunity chemistry, a new branch of immunolgy, is already in initial formation. It affords a definite explanation and

proof that organism immunity, antigens and antibodies interact upon each other. But it is not enough just to use chemistry to explain and offer as proof, for it is unclear on the mechanics of immunity. To study scientific progress of further physiological and pathological changes in organisms, we must begin using new concepts in one of the basic modern sciences, physics, and new technology including electronics to study the physiology and pathology of organisms gradually form one or more kinds of peripheral disciplines and move into brand-new territory.[4]

In recent years, many Chinese as well as foreign scholars and medical personnel have adopted new electronic technology and test measures in scientific search for certain phenomena and mechanics of Chinese Qigong. They submit that three billion years ago the most primitive living things first appeared on our planet. Upon birth, they continued to multiply selectively. In the lengthy time since, they became biologically varied, applying the basic principle of moving forward to produce myriads of breeds and varieties, performing the various functions of life:

1. Mimcroorganisms: some varieties could withstand temperatures below $0^{o}C$ or above $100^{o}C$ or flourish in oxygen-lacking environments.

2. Plants: Aside from using chlorophyll in photosynthesis common to all, some could move far away or react quickly to certain stimulations.

3. Animals: Some are luminescent, others emit electric waves, still others use electric waves, magnetic fields infrared or supersonics to shake off predators and enemies. These functions are general within the species, but can be said to be a kind of "special function."[5]

In the evolution of living things, about four hundred million years elapsed for ancestral man to go from the lowest order to the highest. In this time, man like other animals, was subjected to various rays, particles, energy fields in nature and physical, chemical as well other stimuli, forging an ability to defend against various incursions and calamities and provided various functions common to living things, extracted information from sound and light, electromagnetics, heat, vibrations and radiations and all kinds of pollutants. If man could hear the vibration of a microsound 1/10 of the diameter of the atom hydrogen, he also could bear an amplification 1,012 times louder than that. Man's ear could deal with changes of sound of different amplitudes; objectively ten times the emanation and subjectively only two times; subjectively increase to four times that which is one hundred times louder and thus preserve man's hearing from damage.

In the billions of people, human functional ability is uneven and can more or less be divided into "recessive" and "dominant" groups. Dominant functions include those that are the normal functions of the various organs.

Chinese Qigong: Present and Future

Feng Lida
December 1987

The reason the technological revolution that is currently flourishing world-wide can be called a new technological revolution stems from consideration of those that have already happened. It is world-wide because of its deep and wide effects[1]. The history of human civilization is actually that of science and technology. The first scientific technological revolution was when man invented, studied and used steam engines after the Iron Age. Its productive force surpassed the sum total of all that had been created in the past. The second was signified by a breakthrough in the study of electromagnetism and wide use and application of electric power[2]. The third such global revolution, compared to the first two and whose characteristic is in the foundation laid by rich natural science theoretical study, such as this century's outstanding theory of relativity, quantum mechanics of the 1920's, atomic structure and basic particles of the 30's and 40's, molecular studies in the 50's, recent electronics, particle biology and other breakthroughs in basic sciences. They made firm the technological and theoretical science bases for such new technologies as computers and micro-electronics, biology, information, etc. Or in other words, these would not be here without such basic scientific breakthroughs. Its second characteristic is that these were not individual entities but technology groups, e.g., those that affect economics, society and national defense the most are information, biology, new materiel, new energy sources, space, oceanic and space navigation technology. These mutually support and act upon each other forming great productive power objectively in the world. The third point is technological changes greatly reduce the cycles of products and property. They require a certain time for

product to be property but the cyclical duration generally is determined by the technology and its advancement stage, social needs and material needs for social change. Past technology often needed decades or longer to go from emergence to transformation; technological and social improvements shortened the time greatly. Some quickly became products and then property. The fourth point is development speed affects depth. Some new technology in the past needed decades or longer to form a newer one. Now, one seems to follow the other. For example, 1942 saw the first nuclear reactor pile, 1946 the electronic computer, 1947 the semiconductor transistor, 1957 launched the first man-made satellite, the integrated circuit in 1959, lasers in 1960 and hereditary genes splicing and reforming in 1973. Computers are now in its fifth generation. One can see the speed. Its deep and wide influence not only affected the production process of matter, the scope of spiritual products, but economic, political and military strategy. It also hit the home and changed man's traditional birth methods.

China's Qigong's coming into being and growth, like other scientific knowledge, summarizes the long-term exercise of man's struggle with nature and environment (macroscopic and microscopic world views). As a discipline, its contents are wide in scope, its basic study direction is limited to subjective sensation, and clinical examination developing to applied modern biology, electronics, electro-chemistry, magnetics, microwaves, mathematics and other singular disciplines interacting and blending with each other in in-depth study of the possibilities of relationship and effect between "Qi" and the macro-microscoic world.

In human body sciences, Chinese Qigong is regarded as the dooropener to study. What is the concept of Qigong functionability and what is the functionability of the human body (produced from Qigong) is something needing careful consideration.

Human body functions are those basic characteristics expressed under a standard timetable, an objective existence. Looking at it from modern systemics, the human body is a huge, complex system. It includes many subsystems, such as systems, organizations, cells, molecules and other series, each one being a large human body system. More than fifty years ago, a founder of the systems theory, Austrian theoretical biologist L. vonBeiderrampf (transliteration) while critiquing the foundation of traditional mechanical theory first proposed that a living thing was a standard body which, concurrently with its environment can be studied as one entire large system and form a typical or general system. He stressed the penness of systems, i.e., quantitative and material exchanges (including information). When the orderly nature of living things and that of

life phenomena merge with the stable structure of systems, the orderliness stabilizes the system structure. Immunology is the discipline studying immunity functions of the human body, and thus also studies human body functinability and how to keep it stable and orderly. This requires deep understanding of systems, thermodynamics, harmonies, quantum and other theories. Under temporary or different circumstances, stability may be lost resulting in abnormal functions (immunity functions become abnormal). After such a correct explanation, this will spur recognition of organism functions (immunity) and human body functionability (modern immunology). This new understanding will get good results in efforts to recover the stability of the (large) system.

Some scholars feel that man, animals, plants, even rocks and minerals as well as all organic and inorganic matter radiate a sort of ray into space that the naked eye cannot see. In the atmosphere, even nature or a vacuum is full of this unobserved radiation, though there may be one or two in tens of thousands that can directly see its color or brightness. Thus, for long, few believed the myth of the rays.

Many scientists and technical experts have sought to unravel this mystery from different angles trying to explain its nature via bioelectricity, static electricity, electromagnetic waves, neutrons, atmospheric electricity, ions, etc.

Japanese scholar Uchida Hideo et al studied the quantitative change of man's body rays into electric current, the rays and the special nature of electricity at acupuncture points of a man's body and proved that the mechanics of the rays from man and all other animals, plants and inanimate objects had to do with body temperature, or heat energy. Biolelectric current and such energy sources as atmospheric electric charges radiate electricmagnetic waves into space ionizing the surrounding air which forms into static fields, and then emanates rays not seen by the naked eye.

After long testing, some scholars concluded that the mechanics of the rays resembled that of fluoresent matter, its energy source is heat energy expressed by temperature, biological current, atmospheric charges and the electro-magnetic quantity in cosmic fields. These are connected with individual conditions, but all have fixed wave lengths. Each has its own quantitative reception zone, when stimulated by energy, it creates a radiation of a secondary energy. This is the radiated wave, scholars call it "aural" radiation.

This secondary radiation ionizes the air into a static field which can be examined. We now come upon wave length differences, one kind can be seen and is fluorescent.

Another cannot be seen, but within the scope of sensitized film, can be photographed.

People have comparatively observed Scorpio with Mars using the naked eye and test equipment and determined that objectively speaking, "auras" no doubt exist. In considering auras as heavenly bodies, they called it "hard aura." We use hard radiation wave. Those of the human body that follow environmental changes might be called "soft," or soft radiation waves.

Scholars developed an instrument to measure highly sensitive supermicroelectro-magnetic fields, and definitely proved that such rays exist objectively. Also, it determined that humans and other material in the living environment all have such "aura" waves. As they are related to the number of magnetic fields, the "auras" have a quantitative area of 1 square meter (not plane, but spherical) with effective value of 1 ampere current (whether direct or alternate) as 1 "aura." Where there is general health, the magnetic field energy can be measured in terms of a negative charge, whereas those sick or tired can be done as a positive charge. Thus it explains one step further that the air in a living environment or all material receive "auras". This "aura" ties closely in with our health. These scholars believe the scope of relationship depends on environmental conditions. Adults differ from children; in general, using adult faces as index, the scope ranges from horizontally of tens of centimeters to 1 meter, but when the atmosphere is unpolluted and the body is healthy, it can increase considerably. It is either round or oval. In rain, when the air is unclean or body is sick, it can reduce to a fraction and change shape. Active organism have been seen to change from positive to negative "auras" 10 - 20% in value. Those measured at the head or limbs can go up or down several times the dimensions of the original, it can also be changed by deep breathing.

In tests, scholars paid attention to effects of clothing and, after many tests, proved that clothed bodies and those with gold, silver and other minerals had effects little different from those not wearing them. But those sick or tired showed unusual positive "aura." Also showing positive was when food with a positive charge was eaten[1] A cup of coffee showed positive through the alimentary canal, throat, esophagus to the stomach; dusty areas also showed positive[2] and when tired (long nights up or worried)[3], it showed weak positive. In head cases such as cerebral hemorrhage or ringing ears, aside from unusual waves, a strong positive "aura" projected from the head[4]. Hypersensitives emanated a very strong positive wave from the head and neck down to the back[5].

Also, pregnancies had separate negative waves from the

head and abdomen, but a positive one of several centimeters near the eyes. Extensive tests showed such radiation started at conception. Positive waves showed in these areas after an operation or after anesthesia, and a negative-charge film that was hole shaped. Lastly, tests showed that during public exhibits or when there was disorder or much arguing, even when it occurred during testing (while the face was smiling), certain facial expressions or the sides of the face harbored wide-angle positive rays.

Miscarriages showed positive, spherical waves measuring 15-20 centimeters shaped like small balloons if they could ever have been seen by the naked eye.

Scholars scientifically explaining all this feel that this is the fourth new world's mystery. There is a definite relationship between these aural reactions and activities of the brain, ideas, consciousness and the spirit. They feel that such radiation layers are somewhat thin and are easily affected by external magnetic fields when dissatisfied with life, no consciousness about self-conduct and morality, insensitivity to troubles of others, or self-confidence is lost. We feel that we can catch a disease easily because of mental or physical distortions, a "susceptible person." Conversely, if we are satisfied and have strong confidence in life, then the radiation layers are thick and more resistant to external magnetic fields. Thus there is greater ability to resist external harassment (including factors conducive to sickness), and distortions of mind and body can be avoided. From another angle, it might be asked whether the thick-layered ones did entirely escapy external magnetic effects, but had greater resistance and so had no distortions. Concurrently they had a small amount of external (environmental) magnetic influence or tempering. Qigong uses external electromagnetic power, such as in Qigong exercises and thus strengthens its original functions, use external Qi to treat sickness and act on other things and different endeavors (agriculture, physical training, mining, etc.) as potential functions. It stimulates the vitality of factors inside the body with different antibody elements to increase and use the organism's intelligence and physical ability.

From the above, we can see the mechanics of the fourth new world. Where inside the body does the source of the auras man launches lie? Some scientists feel the body has very short magnetic waves, infrared and ultraviolet rays, X-rays and other invisible light and magnetic waves radiating into the surrounding area which lead to very weak continuous ionization of the air, or cause the air to make a secondary radiation, but generally this is not considered a good explanation of the functional mechanics.

Any good explanation no doubt would be linked to the

exercise of man's potential function, its categorization, scope and strength. Some made tests, as they, of course, did not know the functions of internal and external Qi and the effects of stimulating the latent functions; they thus measured the special "auras" of some super sensitive and super capable individuals. The results of 19 tested were:

1. Position: Mostly center of the frontal eminence (resulting from the testing, but because individuals varied). This is near the Heavenly Eye point, the diameter was several centimeters and round or oval (not identical); angle was of a searchlight projecting forward at a 30 to 60 degree angle, a definite relationship between the radiation distance and the level of Qigong, or the radiation layer of the individual with effort spent. Many tests showed generally the human body's slack distance was about 1 meter. Diameter of scope of sensitivity was 1 to 2 centimeters, such as in lasers radiating in three-dimension. The supercapable people (we mean those that could exercise their latent functions after qigong training) had a much wider scope, and strong aural rays frontward, especially near the Heavenly Eye treating veins (Second Eye); next came the throat, pit of the stomach and the belly button area and in the male sex organs in a vertical line bisecting the body, and rather strong "aural" rays along the veins.

Tests showed that each person contained a special series of radiation fields not too different from each other, but the whole body is not a negative radiation field but positive. They considered this a special physique and those with this physique could feel the cold breath from the point of infection of the sick.

Characteristic of the "aura" of an infant who had just learned to walk is a negative charge and a hemispheric shape, different from radiation fields in general.

Also, scholars feel that people's life environment is full of public menaces from polluted air, so that the "aura" (negative) daily receives serious frenzied attacks, the utensils constantly used in daily life such as electrical products, appliances, daily tools, construction material, etc. all can radiate substances different from that of the body, all are public menace substances. Their radiation field can also be measured. Concurrently, scholars urge that attention be paid to substances that bring harm and harassment to the body's radiation field, and which also distort the body's acupuncture points or electric charge. Yet the charge (changing negative to positive) and the functions of the internal organs have a close relationship. Therefore, the results hint at possibly affecting the health of the human body.

The recognitions and phenomena described above are thought by scholars to be the most serious of difficult