

PART 1. A FIRST LESSON IN DOING THE NEW

CHAPTER 1. ORIGINALITY AND METHOD

Predilection, Self-Expression, and Originality. The first great opportunity of a person who finds himself a citizen of this world is to learn a language and through it the thoughts and achievements of the human race. The second great opportunity is to add to that thought and achievement by discovering new facts or domains. The third great opportunity is to use them for self-expression and the world's good.

Some persons are born with more mind and brain than others and are thereby fitted for intellectual pursuits, some along one line and some another. Some have great intellectual powers, some intense feelings and emotions, some great physical strength and skill and endurance; some have artistic and esthetic and dramatic powers. Some are musical and some are mathematical, and so on throughout the list, and they range all the way in ability from genius to mediocre. As a person grows up he may discover that he has certain kinds of abilities if they happen to be sufficiently pronounced to sprout through the soil of customs and the commonplace. As he grows older he will have a preference or liking or predilection for some of his abilities and for some of the vocations to which they are applicable.

For instance, he may not only have a predilective ability for mathematics but may prefer being a teacher to being a computer, or may prefer to devote his life to thought and research. If he finds a predilective vocation to which his inherited dominant abilities can be applied for livelihood purposes, he is thereby giving a material and normal expression to his powers. He is doing it predilectively, and that is self-expression. He is doing what he can do best and what gives him most joy and hence is giving self-expression to that part of himself which the world most needs; he is thereby doing his best possible service to himself and the world.

Now a person may do all this and do it well and fill happily and usefully his place in the world without adding anything to progress through his own originality. It is not necessary that he should; most persons must help do the daily work of the world. However, no progress will be made unless the individual now and then has *originality*, unless he discovers something new in science or manages to evolve from his mental content of general and special experience original ideas and thoughts (inventive, poetic, philosophic) or uses his mental content and original ideas in doing creative work (as in the fine arts, architecture,

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business). Unless this were to happen the most important and optimistic feature of the world would be lost and progress would disappear.

A person may discover a new sensory quality of a well-known object or a new and heretofore unknown object, or he may discover a new group of objects, or a new interaction between two well-known objects. He may discover a new mental state or process of states or operation with processes in his subjective world, and he may discover many things in the outer and inner world by perception and experimentally directed observation but there is *no room for originality* as to what kind of detail the image or concept may have; that matter has been determined by the objective and subjective worlds. It is not the discoverer's place to guess or invent, but to *discover* and describe what he discovers. One man may be more accurate than another and more abundant in the details he sees and may work more rapidly and more hours daily; he may use more of his senses and they may be more discriminative; his images may be more complete and vivid; his conceptual groups may be less carelessly formed and less apt to include particulars that do not belong to that concept and more certain to include all the particulars; his ideas may be more truthful and more quantitative.

In all this discovery by scientifically trained observation there is no room for originality. The investigator may classify and describe and be more accurate and cover more ground than another or he may have better facilities with which to experiment; but after each one of the concepts of a scientific domain has been interactionally and spatially and quantitatively related to each other, and ideas of their discoverable relations thus obtained, then there commences the process of thinking; that is, of generalizing ideas. Again the seeming differences between the work of thinkers is not a matter of differences of originality but of poor or good generalizing.

“Mentation” is the purposive activity of the mind, using its validated data and trained processes for arriving at further results. There is one phase of scientific mentation of ideas and thoughts that seems like originality, and it is to a certain extent: namely, the choice of a subject. One may choose chemistry and one philosophy and one mathematics, which is a matter of predilection rather than originality, and yet having chosen one group of facts rather than another, the thinking out of the subject often leads to results that would have been missed by other thinkers, and flashes of insight may often determine these choices, and hence the choice is a *kind of originality*.

What an investigator may discover in regard to the properties

of a new chemical compound has already been determined by the

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nature of the objective world and by the limitations and nature of his mind. He cannot invent science. Research in the sciences is a matter of exact and quantitative observation and classification and description — there is no room for originality. However, in common usage of language if he selects a different line of research from the lines pursued by others, it may be said he follows a new or *original line* of study, and owing to mental (predilective) differences between two persons following that same line they will notice and discover different groups of facts (sensations, images, concepts, ideas, thoughts) and that may also be said to be a kind of *originality*.

But when one has acquired education in his predilective lines and made discoveries along those lines of the two above kinds of originality, he may begin to contemplate or systematically comprehend. He may begin to invent and thus make practical use of his knowledge content; he may compose poems or dramas, he may write expositions of the subjects with which he is familiar; and he may do work of the creative imagination; and in all this work there is room for original ideating and thinking, what can be *truly called originality*.

Genius-Capacity and Genius. A predilection is a preference for things, acts, vocations, sciences, arts, persons. It is a liking for a subject without necessarily having unusual ability therefor. If with a predilection there goes unusual ability therefor, it is a *genius-capacity*. A genius-capacity is characteristically original. Fortunate is he who reaps the full value of the experiences that are indicated by his predilections *at the times when* they arise, for it is *then* that he needs the growths that will be produced.

A natural explanation, none the less wonderful but more enlightening, may dispel the halo of mystery which has hitherto surrounded *genius*. It is a predominance of mental abilities along certain lines, of mental content in the sciences relating to the domains to which these abilities pertain. The mental content contains a greater proportion of truth than falsehood, the person is more simple and honest with himself in the line of his predilection and gives more attention from youth on to his specialty, he acquires relatively more mental content along that line than any other, he takes less for granted and accepts less that is unproved.

The young Mozart, for instance, does not care for what any book or teacher tells him as to whether a certain chord or melody or modulation or harmony is beautiful and right or not; he judges for himself and honestly with himself. The author knew a musician who would be untruthful to himself and others in all

matters except music; there his mental integrity was impeccable and that is one almost certain characteristic of a

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genius in any line that he is first-hand truthful in that line, takes nothing on testimony other than that of his own mind. That is why he goes straight to the heart of his subject “making all other men appear mere outside laborers” to the genius himself. As to Newton, for example, there seemed to be no difference between himself and common men except that he could fix his attention more continuously. There was no difference in kind but only in mental content and ability.

Insightive Originality and Originative Mentation. The world has from time to time produced prophets and seers whose intuitive insights sprang from such a close contact with the heart of things and from such a deep love of Nature and humanity and truth that they were able “to dimly forbode the truth,” and their sayings are a constant source of inspiration to those who are well grounded in knowledge, but are apt often to be misleading to those who are not. A guess at the truth may point the direction in which to look for it, but seldom contains much of practical value. A few quotations from Emerson will illustrate the difference between insightive originality and originative mentation. He stood on the borderland of a very great series of truths and practical possibilities when he wrote the following:

“What is the hardest task in the world? To think. I would put myself in the attitude to look in the eye an abstract truth, but I cannot. I blench and withdraw on this side and on that. For example, a man explores the basis of civil government. Let him intend his mind without respite, without rest in one direction. His best heed long time avails nothing. Yet his thoughts are flitting before him. We all apprehend, we dimly forbode the truth. We say, I will walk abroad and the truth will take form and clearness to me. We go forth, but cannot find it. It seems as if we needed only the stillness and composed attitude of the library to seize the thought. But we come in, and are as far from it as at first. Then in a moment, and unannounced, the truth appears. A certain wandering light appears, and is the distinction, the principle we wanted. But the oracle comes because we had previously LAID SEIGE TO THE SHRINE.”

That is, when we are trying to “think beyond the limits of exact knowledge” we must for a long time “intend” the mind upon that subject, and keep it prospectively before us. When we “intend” the mind we fill it with outlines of what we desire to know; we freshly call up by recollection the facts bearing on the case; and we keep in mind the nature and scope of the problem we desire to solve.

This “intending” of the mind spoken of by Emerson, although he was not conscious of any intended method connected therewith or of any rational basis for such a procedure, is nevertheless a kind of introspective directing of the attention

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which places the facts before us in such wise as to facilitate new ideas upon that topic. Now, when we discover the rationale of “intending” the mind and do intentionally and purposely and introspectively what was done naively, we promote the process by knowingly helping it where we may, and also by intentionally avoiding hindrances; and if furthermore we know the psychologic processes involved, we may carry on scientifically what was done empirically. This naive and empirical and even unintentional intending of the mind is what all great philosophers and discoverers and artists have done in their attempts to get new ideas, *except insofar* as they applied the observational and experimental methods of inductive science. The method described later in the curriculum by which taxonomic data are acquired and re-functioned into dominance is the beginning of a scientifically formulated art of intending the mind.

This intending brings to the conscious and subconscious functional processes of the mind the materials for the solution of the problem which perplexes us. What are these materials? Let Emerson answer.

“If you gather apples in the sunshine, or make hay, or hoe corn, and then retire within closed doors and shut your eyes and press them with your hand, you shall see apples hanging in the bright light with boughs and leaves thereto, or the tasseled grass, or the corn-flags, and this for five or six hours afterward. There lie the impressions on the retentive organ, though you know it not. So lies the whole series of natural images with which your life has made you acquainted, in your memory, though you know it not, and the thrill of passion flashes light on their dark chamber, and the active power seizes instantly the fit image, as the word of its momentary thought.”

Stated in terms of psychology, it may be answered that the materials which the mind uses, or should use, in laying siege to the shrine are the actual experiences, — the sensations, images concepts, ideas, and thoughts, with their concomitant emotional and conative states, which we have with the phenomena of the subject.

But these materials should be classically enregistered in the memory and must be of equal vividness, and of taxonomic completeness. There is a natural classification of all parts of Nature and of knowledge, and these subdivisions have

corresponding groups of enregistrations in the mind and in the brain in which the facts relating to those divisions of Nature and knowledge are normally remembered. Sound memories in one area; sight memories in another; certain other classes of memories in different tissues; images occupying different groups or parts of structures than concepts; and ideas being

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differently embodied than feeling memories; and mathematical concepts occupying different intra-cellular structures than botanical concepts; and so on — each great group of ideas being differentiated structurally in their brain-embodiment from other great groups of ideas. It may be that different kinds of concepts are embodied, not in different cells but in different parts of these cells, and so on. Not until the images of a subject have been enregistered can the concepts exist — lower structural embodiments must exist before higher embodiments can be formed by integration of the lower embodiments; lower degrees of generalization must exist before higher ones can be achieved.

If we attempt to think before we have enregistered the adequate materials which form the units or components of that thought we shall most surely find it “the hardest task in the world.” But if we enregister the proper amount of taxically arranged idea-memories belonging to some one domain of knowledge, it will then be an easy task to think, for the thinking takes place entirely through the subconscious processes and we become aware of the successive results. Thought is a diver who sinks into the deep sea of our subconsciousness and brings up, at intervals, the treasures which he holds to the light of consciousness. What takes place while he is submerged is entirely unknown to us. The brain must contain sensation memories relating to some domain of knowledge before images can be formed out of these sensations; when the images have been acquired and taxically arranged the formation of concepts becomes easy; and when the concepts in taxic groupings have been acquired from every domain of a science so as to put their corresponding structures in the brain, then their observational or experimental relationment into ideas will be easy; when these ideas are properly associated according to psychological laws and logical methods, then their generalization into thoughts is easy, and so on. The systematization and extension of this process requires the enregistration of images and concepts from various domains of knowledge in order to extend the growth of ideas — but true ideas cannot come *unless we put into the brain the subordinate elements for their formation; when ideas have been supplied thinking will be easy, and when thoughts of the first order have been supplied the higher processes of generalization will not be difficult.* If these

preparations have not been made it will be as impossible to achieve new and true ideas about a subject as for the stomach to create nutriment without food. It is useless to attempt to create ideas out of nothing, or for a man to try to evolve them by intending “his mind without respite, without rest, in one direction,” for he will thereby only engender vagaries and unfounded speculation. Unless the student has

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obtained first-hand knowledge from that domain of Nature which includes the subject about which he would think, and unless he complies with the physiological and other conditions of mind-organ functioning, “his best deed long time avails nothing. Yet his thoughts are flitting before him.” But these flitting thoughts are transcripts and combinations of what already exists in the mind, without producing new insight.

When striving to think out some new ideas upon a subject “we dimly forbode the truth. We say, I will walk abroad and the truth will take form and clearness to me.” This foreboding of the truth is an insight that if we but knew how to achieve it — if we but knew how to manipulate the mind — we could at once recognize the truth which we so ardently seek; we feel its presence as we do that of a friend who is about to call upon us, and this foreboding — this prospection outlines what we know and what we do not know upon that subject. But “the truth will not take form and clearness” until we arrange all the facts we know upon that subject into a classified synopsis and contemplate it; and the greatest amount of truth obtainable upon that subject from the given facts and given brain development will not be attained until we apply systematic mentation.

Having acquired knowledge upon a subject we next try to assimilate it, to understand it. We try and fail. Then “we go forth but cannot find it.” This going forth is the response to an intuitive feeling that we should alter environmental and bodily conditions, whatever they may be, in order to bring about some changes in us which will facilitate the coming of the insight or understanding we want. This remark of Emerson’s was based on his intuitive perception and experience that walking around and sitting in different places sometimes facilitates the advent of the idea desired. It illustrates the general character of insights based on seership; whilst they often point the direction or general character of the truth, such insights are generally a reworking of old material and seldom a discovery.

These new ideas when they come, may come as a result of internal processes, but in any case cannot transcend the structural capacity of the mind-embodiment which functions to receive them.

The “walking abroad” having failed, the student seeks “the stillness and composed attitude of the library,” or resorts to various other devices and finds that the thought is still far from him; again and again he relinquishes the apparently fruitless task only to take it up on the morrow with increased zeal. This is the general lack of scientific method resorted to by a certain large class of thinkers of the present and past, who having acquired some knowledge by reading or observation, expect to

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attain the rest of the truth by some inward process without the assistance of *further study* of the external world, and without getting more mind. Even the experimentalist under the influence of a foreboding of truth about some subject often makes a few observations and experiments, in that line and then meditates about the result, and after several efforts gives up the attempt as a fruitless search. Great minds like Newton’s or Kepler’s or Faraday’s have by the inductive method achieved great results, because they were so nearly normal in their mind-habits that they complied unknowingly with some of the laws of mentative success.

After many fruitless attempts, and after many times reflecting over what we know about a subject upon which we desire illumination, we at last in a very sudden manner find that a new idea has entered our consciousness. The “distinction, the principle we wanted” has made its advent, but from whence?

All great thinkers have experienced this happy moment when, like Sophocles, “coming to many ways in the wanderings of careful thought,” they suddenly discover a new path through the realms unknown, when a sudden light illumines the darkness of regions unexplored and reveals to them the outlines of a new idea or concept. This supreme moment that so seldom comes can be caused to become almost a daily habit of mind functioning by the right kind of preparation and training. These various attempts to induce the idea to make its appearance have never before been colligated and inductively studied. The foreboding, the walking abroad, the intending of the mind, the stillness of the library, the withdrawing on this side and that, the stimulus of conversation, the quiet of night, the loneliness of sylvan vistas, the apprehending, are all parts of a great *functional process* of Original Ideation in dealing with *mental content*. All are symptoms of something taking place largely in the subconscious machinery of the mind and partly in the conscious mind; but these efforts are generally practiced in such a manner that they antagonize what they are designed to assist, and are of real fruitfulness only when the mind has in it true facts and insights that have not yet been used by other

thinkers.

The author met many discoverers and inventors, painters, sculptors, composers, thinkers, and original minds of every description, and made a study of geniuses in actual life. Conversations were directed so as to draw out of them observations about their mental methods, often to their own surprise, not having thought about the matter before and not having noticed their own mental habits. A number of clues were obtained to the methods used, consciously or subconsciously, by which they attained original thought in special instances and thus

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arrived at what had not been previously known. Inventors and discoverers have seldom or perhaps never been conscious of the mental methods by which they achieved success; they have worked almost unconscious of the fact that there could be wrong and right ways of using each one of the mental functions. An elaborate study was made of the minds of many inventors and a systematic account was possible of the ways by which they, in definite instances, achieved subconsciously new and true ideas.

Thinkers habitually violate a majority of the conditions which are promotive of successful mental functioning during original mentation. They fail to take advantage of the numerous bodily, environmental, and psychological laws which would aid the subconscious and conscious processes. Insufficient use is made of the methods of inductive observation and experiment and no rational use is made of the fund of memories; no sufficient care is taken regarding the validation of the data; no attempt is made to get rid of wrong intellective, emotive, and moral habits; the psychological conditions underlying these phenomena have not been hitherto studied and reduced to rule.

Instead of trying to construct thought out of our ignorance of a subject — instead of trying to scan a domain of the inner world into which no details have been placed by a study of the corresponding domain of the objective world — instead of trying to achieve new ideas by some magical process, which does not require a corresponding growth in ourselves, the art of mentation demands that the new domain shall be scanned from “the limits of exact knowledge, as from a lofty island shore,” and therefore the first step is to learn the sum of human knowledge relating to that subject about which you desire revelation. This requires an inductive familiarity with the objects and phenomena of some scientific domain (of Nature) and a full enregistration of all the known memories relating to that domain so the mental content may as nearly as possible correspond to the outer world.

When the new idea has been achieved it constitutes a new

factor in the method for achieving more ideas; it forms part of the materials to be used in besieging the shrine. It forms a new term between which all previous ideas, relationships may be discovered which form the basis for further thought in that direction. Emerson remarked: "Each truth that the writer acquires is a lantern which he instantly turns full on what fact and thoughts lay already in his mind." (As part of his mental content.)

It is a very great culture to learn, as a matter of information, the true thoughts of all true thinkers and discoverers; it is very great to acquire the necessary training of the understanding to be able to read these writers and think their thoughts. This practice

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of thinking develops the ability to think, but there is a practical culture in mentation that underlies these powers of thought and renders thinking easier and quicker of attainment, and lays a broad foundation by means of which the student may pass on beyond and add new realms to the world's knowledge and insight. Now the greater the mind that engages in a study, the greater will be the results. If more mind can be attained by the student before he begins the severer studies, he will have greater abilities with which to prosecute them. Socrates and Kant, Newton and Faraday, Young and Davy and Dalton, and hosts of others, have added to the mental acquisitions of humanity. They have enlarged the domains of the sciences which they studied, and have brought new ideas into the world and given new arts to the race; but contemporaneous minds facing the same facts and phenomena did not achieve like results. Arkwright and Fulton, Shakespeare and Whitman were original in each of their respective spheres, but no one of them could have exchanged places with the others; and in each one the period of originality had a distinct beginning and end.

It is laudable to become a great scholar or artisan, artist or writer, or teacher of the thought of others and thus carry forward the application of discovered truth; but the true pioneers are those who are able to bring something new into the world of thought, to discover new facts and laws and principles, which shall "mould with growing sway and the growing thought of man."

An important law of Originative Mentation relates to the acquisition of new facts as follows. Memories of sensations, images, concepts, ideas, and thoughts are retained and apperceptively elaborated most readily when the scheme of classification of data corresponds most nearly to the taxonomic subdivisions of nature. True results cannot be attained when any artificial scheme of classification forms the basis according to which the details of that science are arranged into a Mentative Synopsis. When memories are embodied in the mind so as to

correspond to the taxis of nature, then the associative integrations will naturally develop logical conceptions of the relationships between these memories, and physiological functioning will not be impeded by malformations of memory structures or fibers, and the creative imagination will produce normal images because the inner world will be a counterpart of the outer world. Such a taxic arrangement of memories in the mind reveals much truth by the positional relationship of the subdivisions and particulars.

Another law demands that with each of these intellectual enregistrements there shall be educted as full a fund of normal

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emotions as practicable; and there shall be eliminated from them the katabolic feelings; and by daily revivescence of the anabolic feelings in classific order, they shall be developed into dominant anabolisms, and thus there will be created the energy of mental activity; and thereby wrong feelings will not mislead the attention.

It is another important law that out of the intellectual and emotive states there shall be developed the normal conative experiences; that is, the student shall develop his conduct-habits in this domain as a vocation and to their fullest extent, develop them taxically until they become automatic, and he should if possible make his living by pursuing that line of conduct. Original Ideation must not be divorced from that necessity which is the mother of invention; the life-work should relate to the subject about which revelation is desired.

Subconscious Mentation and Prospective Intellection.

Subconscious activities help to combine conscious data into new ideas. A re-consideration of these popularly stated laws will show how near and yet how far from the truth was the conception of Emerson, but he saw that new ideas come to us. There is not one “retentive organ” as was then thought, but as many retentive organs as there are memory-structures, and every change of consciousness which becomes a memory makes for itself its own retentive organ. When these memories are revived — when “a thrill of passion flashes light on their dark chamber” — that is, when the states of feeling under the dominion of attention create an emotional directing of attention to a memory and to its associative connection, there is a unity of consciousness integrating all these memories, “and the active power instantly seizes the fit image as the word of its momentary thought.” This active power of Emerson’s which seizes the concept of the unified consciousness of many memories is not a voluntary power; the power which flashes light through the dark chamber of memories is not a voluntary power; both processes belong to the subconscious functionings of the mind and must be regulated by regulating the

fundamental activities of the organism, and by a regulation of bodily and environmental conditions.

The voluntary processes cannot act until, the subconscious processes have produced a result and submitted it to the consciousness. The subconscious processes constitute by far the largest part of mental activity. It is a fact that certain normal and abnormal states well known to physiologists and psychologists can revivify memories which have long been forgotten and entirely submerged beneath accumulated recent memories. Under certain states of excitation details may be recalled which never entered into conscious memory of the

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individual at the time when the memories were enregistered. Many automatic memories of sense-impressions are recorded in the subconscious substrata of the mind which never enter into the conscious memory. These are important factors in intellection. It is a widely known truth that after prolonged and unsuccessful meditation and reasoning upon a problem, we are apt to have the solution dawn suddenly in the mind without having consciously passed in thought through the successive stages of knowledge and reasoning lying between our former ignorance and our present enlightenment. The popular belief is that ideas come from somewhere outside one's own mind, but there is no scientific evidence of such an origin of any of these ideas of the sciences and arts, neither do they come out of the subconscious. They come out of the *conscious and subconscious data*, derived from experience and integrated and selected by the help of the subconscious. The conscious [processes] put the subconscious processes to work, regulate them, and help do the work and record the results. The mathematician retires discouraged after vain attempts to solve a difficult equation or prove a theorem, sleeps soundly all night, and on awakening next morning finds the solution in his mind without having consciously passed through the several intervening stages between the unfinished problem and the solution. We habitually remark that an idea "occurred" or came into the mind uninvited, unannounced, unexpected, bringing us new understanding and truth, but all that was done by the subconsciousness was the bringing together out of the memory and general fund of one's own experience with his mind the data which made the solution occur.

Everyone has observed the phenomenon of a person suddenly striking his head with his hand or jumping to his feet with an exclamation of "Eureka!", or words to that effect; for many days he had been pondering over a difficulty and suddenly while engaged at some other task, or while consciously doing nothing,

the idea entered his mind, illuminating all obscure parts in his thinking and solving his particular difficulties. By prolonged attention and introspection we can at length succeed in recalling many minutiae of some past event which would otherwise never have been recollected and would have never again entered into our conscious thought. Our minds are full of myriads of memories which we never recall, yet they lie stored away in the brain and constitute important factors in the structure and function of the brain; they require blood and metabolism and contribute to the volume and character of our emotions. Everything you see or hear, however trivial it may seem, becomes ever afterwards an ever-present influence in the very structure and nature of your mind and shapes your conduct. Be

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careful what you remember for every time a memory is recalled it is intensified. Be careful what enters your memory mainly by making yourself dominant in acquiring memories of the sciences and arts and in developing your normal feelings, so the spontaneous attention will cease to notice memories of other kinds.

It is stated by those who experiment in hypnotism that if the subject be made to think of some past scene or event while in a trance condition of exaltation, wherein the memory pictures become dream-like in their vividness, that the patient is able to resurrect numerous details of which he was not consciously aware at the time when he made the actual visit to the scene, but which were impressed upon the subconscious memory. This extraordinary thesaurus of subconscious memories is the source of superior ability when the subconscious processes are called upon, without hypnotism, to aid conscious intellections.

Always and everywhere poets have waited for the advent of their frenzy, or excitement, before attempting to compose a poem. An enthusiasm which they mistakenly think not their own invades their minds, and in a delirium of activity, in an ecstasy of excitement, they give free utterance for the mere sake of speaking their fullness of heart.

This inspiration of the poet, this enthusiasm of the discoverer, this high rapture of the philosopher, which occurs when original ideation and thought and creative imagination take place, is wrought by the actions of the subconscious mind, and it creates the surplus energy and the spontaneous innervation of the mental abilities (intellective, emotive, conative). During Prospective Intellection the anticipation of what we desire to know hovers like a phantom in the horizon of the understanding while the separate parts of an insight already lie like a landscape beneath the sky, ready to be pieced together by the subconscious. The thinker

makes a prospection of the unexplored region through which he would travel, and the subconscious leads him toward the goal. The prospection held in the mind as a taxonomic synopsis excites certain parts of the brain, blood goes to those parts, there is in them increased metabolism, and the result is that differentiations and integrations take place in the mental content and they become relatively more dominant than any other groups of memories and a unity of certain conscious states takes place in which the vacancies and incongruities of what is lacking to complete the picture is clearly discerned, and this constitutes one form of ideation.

Discoveries and Chance. Discoveries of research are not the result of chance, but of orderly processes of mentation. Even in such instance as that of accidentally dropping sulfur into melted

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rubber, by which Goodyear is said to have discovered vulcanization, required a mind ready in chemistry and physics and rubber-making to note and understand the result and apply it. A new and true idea is not such an easy achievement as many imagine and neither is it so very difficult if undertaken rightly — but it requires the right kind of data and normal and efficient mentative processes. The scientific persons of the human race are gradually becoming a nation within nations, a nation of idea-hunters! Ideas are the motive power of the modern world and constitute the only basis for rational self-activity. An idea becomes effective in the world only when it has been expressed or published, and to do this requires the use of spoken or written words. The great thoughts of the past have been preserved by means of words, and the great thoughts of the next cycle will be given by the aid of words. Oh for the potent power to speak or write words! (That is a rational wish.) Oh that you might know how to arrange words which you now know in such sequence as to reveal the yet unknown! (That is an irrational wish.) What could not be done with a single page of words if only you knew what words to write and in what order! With a few such pages empires and customs could be originated or destroyed; society reformed; disease cured and evils abolished. Almost any knowledge you might desire would be placed in your possession if you but knew how to write a thousand words in proper sequence. By what divination can you determine what thousand words to use and in what sequence to write them in order to accomplish the abolition of war and immorality, and bring about the federation of the world? Just think! How short a sentence it would require to write out some of the greatest discoveries of the past or some of the greatest secrets which will be revealed by the future. The greatest practical rules and knowledge can be fully told in a few pages.

Long and long had the Chinese and Chaldeans been wondering at the mysteries of planetary motions and relations without arriving at satisfactory conclusions. When Alexander took Babylon he found records of astronomical observations reaching back nineteen centuries, and in the public libraries of Nineveh were seventy-two volumes on astronomical subjects, and the records ran back five thousand years; the Egyptians studied astronomical subjects for thousands of years before our civilization; and Ptolemy at the beginning of our era devised a complicated system of imaginary wheels and cranks and levers to explain planetary motion. We cannot help thinking how easy it seemingly would have been for some ancient Egyptian or Chaldean to have written the following words in this sequence: Planets move in elliptical orbits with the sun in one of the foci, all

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revolving in the same direction and the squares of their times are equal to the cubes of their orbits. It would not seem impossible that some one might have arranged these thirty-three words in the same sequence and have anticipated the glorious discoveries of Copernicus and Kepler. Kepler worked for eight years with nineteen successive hypotheses based on the supposition that planets move in circles, and gave them all up. Then the word “ellipse” suggested itself, and after seventeen years of constant toil he announced his first law. Twenty one words would have announced his second law, and twenty five his third. If he could only have had some guidance might he not have arranged these few words in the stated form without making the investigation — could he? If he had taken words out of the dictionary by chance and arranged them by chance he could never have arrived at such sequences because the permutation would have made the probability infinitely little of his ever getting even ten of these words in the proper sequence! If such things were possible much of the progress of the future, we may be inclined to think, could be anticipated. A few score of words at the most would suffice to write Newton’s law of gravitation, and his laws of motion; or Joule’s law of the conservation of energy; or Dalton’s atomic laws; or Darwin’s law of evolution; or Mendeleeff’s periodic law; or the law of mind-using; — in fact if you had the power to arrange a thousand words as they might be arranged, you could anticipate most of the progress of the next thousand years.

If you were to take all the worth of the language with numerous duplicates of the more frequently occurring words and shake them up in a basket and throw them upon the floor, what would be the probabilities of their being arranged in connected sequence, giving an epitome of the world’s discoveries during the next thousand

years? By permutation such a possibility is infinitely little; and such an arrangement could not happen; there must be an intelligence operative in arranging the words to accomplish anything like that. Would Ptolemy have understood Kepler's law if he had seen it in concise Latin? Would Thales have comprehended Joule's law of conservation of energy, or Van der Waal's equation, if by accident he had arranged the words to spell out these laws?

The fact is, and here is the point, the world must reach these advanced stages by the mind-growth of its individuals before such a discovery can be understood, even if the words in proper sequence could have been found. A discovery is as much a growth as any other part of evolution. Out of the knowledge and understanding of the past grows the knowledge of the present; out of any given stage of progress comes that which succeeds it, just as the successive spatial positions of any moving body

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emerge ever from the positions immediately preceding without an abrupt transition, so the successive evolutionary stages grow by imperceptible gradations out of the preceding stage. The present becomes the past and the future becomes the present, not in successive leaps of hours or infinitesimal fractions of a second, or by intervals of time having any assignable value, but by a continuous increment. In like manner growth takes place, the present being always the child of an immediate past. The true sign of greatness in any philosophical conception is that it embodies the fact and true thought of all that preceded it, makes of it a synthesis in some new ensemble and unity revealing higher truth and new applications. In like manner does the flower develop from the bud, the fruit from the flower, the seed from the fruit, and new growths from the seed, but there are no abrupt transitions.

Discoveries are not made by shuffling words, hoping that by some fortunate chance arrangement a great law will be revealed. Mind evolves by a slow process of evolution in which the brain follows its own natural and biotic order of development and in which each science follows its own order of unfoldment without skipping any logical steps, and in this gradual ascertainment of truth there must be preserved a psychologic unity. Out of the true content of the mind must arise new truths. It is not the result of chance, not the child of falsehood and fiction. Out of sensations arise images, but you must yourself experience these sensations and the resultant images. Out of images evolve concepts, thence ideas by inductively relationing the concepts, and by generalizing ideas there arise thoughts. You cannot invent a concept or an idea — you cannot guess it into existence — it must be discovered. But

when the mind contains such truths, or facts, or verified data, then there are modes of mental activity which lead to new concepts and ideas and this is the purpose of the art of mentation applied to discovery. It augments and systematizes the inductive and deductive processes so that all possible inductions and deductions may be made from every known datum of a science, and all opportunities systematically given the mind to make deductions with its experience. The inductive verification of such deduction fills the mind with more true data to be related to the former data for a new deduction, and so on. All deductions are subconscious processes. The mind often leaps to new insights, seemingly skipping several logical steps, but it makes no skips; the unseen steps are subconsciously taken from actual data. The mind has a subconscious experience and also an immanent nature of its own which guide its elaboration of conscious and subconscious mental data into new understandings, insights, and feelings, and the regulation and promotion of

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these voluntary and sub-voluntary states and processes is the art of mentation.

Predilection and Vocation. “The growth of the intellect is spontaneous at every step. The mind that grows could not predict the time, the means, the mode of that spontaneity. . . . Whatever any mind doeth or saith is after a law. It has no random act or word. . . . Our spontaneous action is always best. Always our thinking is a pious reception. . . . We do not determine what we will think. We only open our senses, clear away as we can all obstructions from the fact, and suffer the intellect to see. We have little control over our thought. We are the prisoners of ideas. They catch us up for moments into their heaven and so fully engage us that we take no thought for tomorrow, gaze like children without an effort to make them our own.

“Our growing thought makes growing revelation.” Our study of mentation teaches that all science and art is revelation; that the geniuses who make discoveries and inventions and works of beauty are the world’s saviours; that a great moral and religious teacher is a genius along that line. A genius must first pursue his work along the predilective line for which he is most fitted. The insight of Emerson enabled him to say: “In every man’s mind some images, words, facts, remain without effort on his part to imprint them, which others forget, and afterwards these illustrate to him important laws. . . . Every mind has its own method. A true man never acquires after college rules. What you have aggregated in a natural manner surprises and delights when it is produced. . . . To believe your own thought, to believe that what is true for you

in your private heart is true for all men,— that is genius. Speak your latent conviction and it shall be the universal sense.”

It will be the universal sense provided that conviction is based on true and sufficient data and is the outcome of normal feelings. You can easily attend to that which greatly pleases, because it immediately administers to your life and becomes the origin of other joys. Each joy ripens into a new want. This new want is the source of greater attentive power; having seen one joyous moment we are better able to enjoy and select another, but it can never again be precisely the same joy. Only in change from state to state of mind and action can the power of attention remain.

“Life only avails, not having lived. Power ceases in the instant of repose, it resides in the moment of transition from the past to a new state, in the shooting of the gulf, in the darting of an aim.”

The source of attention resides in your own inherent genius.

“Insist on yourself; never imitate. Your own gift you can present every moment with the cumulative force of a whole life’s cultivation; but of the adopted talent of another you have only an

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extemporaneous half-possession. That which each man can do best none can teach him. Where is the master who could have taught Shakespeare? Franklin? Newton? Every man is a unique. . . . Do that which is assigned thee and thou canst not hope too much or dare too much.”

This real predilection or gift of genius which is yours is what constitutes your difference from the rest of humanity, and gives you a sphere of usefulness in the world. Only when a man has selected his true sphere in life can he expect to have sufficient zeal to make his thoughts and actions noteworthy.

That which intellectually distinguishes genius more than any other trait is the power of continuous attention. There is no better general advice in regard to the choice of a vocation than that given by Emerson, who was himself the most noteworthy example of the benefit of his advice.

“Only in that which I call right of goodness is the choice of my constitution; and that which I call heaven and inwardly aspire after is the state of circumstances desirable to my constitution; and the action which I in all my years tend to do is the work for my faculties. We must hold the man amenable to reason for the choice of his daily craft or profession. It is not an excuse any longer for his deeds that they are the custom of his trade. . . .What business has he with an evil trade? . . .Has he not a calling in his character? Each man has his own vocation. . . . The talent is his call. There is one direction in which all space is open to him. He has faculties silently inviting him thither to endless exertion. He is like a ship in

a river; he runs against obstructions on every side but one, on that side all obstruction is taken away, and he sweeps serenely into an infinite sea. . . .He inclines to do something which is easy to him and good when it is done, but which no other man can do. He has no rival. For the more truly he consults his powers, the more difference will his work exhibit from the work of any other. . . .The height of the pinnacle is determined by the breadth of the base. . . .By doing his work he makes the need felt which he can supply. He creates the taste by which he is enjoyed. He provokes the wants to which he can administer. . . .Until he can manage to communicate himself to others in his full stature, and proportion as a wise and good man, he does not yet find his vocation. He must find in that outlet for his character, so that he may justify himself in their eyes for doing what he does. . . .Whatever he knows and thinks, whatever in his apprehension is worth doing, *that let him communicate*, or men will never know and honor him aright. . . .Accept your genius and say what you think.”

But before accepting one’s genius and its choice, the mind-embodiment must taxically correspond with the taxonomy

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of the outer world; the personality dominancies must be comprehensive and balanced; the emotive and other feeling states must be normally educed from true mind-content and the conduct-habits must be trained by normal conation in the doing of useful things; — then and only then, will the vocation be normal and safe, and the attention a reliable guide.

There is one most potent form of directing a predilective ability into creative dominancy after it has acquired its special knowledge of the sciences and arts, and unlike other means of directing the attention, it is not volitional; it is emotive and it is spontaneous. Of course any feeling may be attentionally brought into greater intensity and normality, but here it is meant that after a predilective dominancy, which is a preponderance of one kind of ability over any other abilities in a mind, and after such a preponderant ability has had its education and training, there takes place the directive action of that person’s love for that subject; the directive action of his artistic, esthetic, poetic, emotional love of that subject. His feelings, and especially his emotions, relating to that subject build in him the sacred fire of emotion which burns higher and higher until it illuminates his whole mental content and produces *creative exaltation*. The love and enjoyment and appreciation of one’s own subject, the enthusiasms, admirations, sympathies, desires of ambition along that line grow stronger by repetition and by every thrill of perception of the beautiful. All these are anabolisms and increase the vital energy for that kind of functioning. The thrill of

creative passion will not come except through a love of the subject. While the mind is filling itself with knowledge and skill and training and normalizing its feelings, you expose yourself to criticism and sophistry and hate and other katabolisms of the unhappy feelings; but while your mind is artistically and creatively working with an *already acquired* mental content and growth, your warmth and eloquence would be chilled by the unhappy emotions and criticisms. The affections and approving sympathies and honest applause will augment the fire on the sacred altar. The right conscious and especially the right subconscious processes cannot be started or maintained except during an untroubled, truthful life.

A characteristic symptom of creative ideation is this ecstasy of enthusiasm which accompanies it. Indifference at such a moment would be fatal to the formation of the cooperative reciprocity between the conscious and subconsciousness. To acquire this rapture we must love and enjoy the truth and beauty of the prospected subject, and must eagerly search with intense anticipation for the coming truth. When this knowledge begins to image itself in the consciousness it must please you and render

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you supremely joyous and exultant; and this excitement makes the mind more sympathetic and receptive to high truth.

It has been said that “Genius is patience” and that “Genius is the capacity to do hard work.” These are not definitions of genius but one of its symptoms. If you have your vocation, your labor in that direction will be as spontaneous as laughter and delightful as play. Whether you indulge in the *prospection which seeks*, or having found, you indulge in the *imagination which creates*, you are equally under the stress of the nature and power of your predilective attention; and this attention itself can be governed.

The Thought and the Publication. The thoughts which we receive as a revelation from the oracle in the shrine must first be published or interpreted to our understanding, and this requires absolutely that they be written in complete literary form, as described later. You do not understand it until it has been done. It is not meant that you need waste time with the extreme niceties of the particular language in which you happen to be writing, but that you shall say only what you mean in perspicuous order of syntax and paragraphing, and say it as briefly as possible.

Having expounded it to yourself, you are then ready to put your message, or any part of it, into the conventional form of speech and fine arts (philosophy, painting, sculpture, music) and publish it to the world.

“To genius must always go two gifts, the thought and the publication. . . . The first is *revelation*, always a miracle, which no

frequency of occurrence or incessant study can ever familiarize, but which must always leave the inquirer stupid with wonder. It is the advent of truth into the world, a form of thought new for the first time bursting into the universe, a child of the old eternal soul, a piece of genuine and immeasurable greatness. It seems for a time to inherit all that has yet existed, and to dedicate to the unborn. It affects every thought of man and goes to fashion every institution. . . . But to make it available it needs a vehicle of art by which it is conveyed to men. To be communicable it must become picture or sensible object. We must learn the language of facts. The most powerful inspirations die with their subject if he has no hand to paint them to the senses. The ray of light passes invisible through space and only when it falls on an object is it seen. . . . The rich inventive genius of the painter must be lost for want of power of drawing, and in our happy hours we should be inexhaustible poets if once we could break through the silence into adequate rhyme. In common hours we have the same facts as in uncommon or inspired, but they do not sit for their portraits. . . . The thought of genius is spontaneous; but the power of picture or expression in the most enriched and flowing nature implies a mixture of will, a certain control over spontaneous states,

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without which. no production is possible.”

It is well to heed this advice of Emerson's. But to attempt to achieve new ideas and thoughts without having in your mind the world's scientific knowledge relating to the subject about which you would write means a loss of time and much useless strain. When you find your mind engaged upon a subject regarding which you have not acquired the sum of the world's accurate knowledge, then immediately drop it and proceed to acquire that knowledge, or apply your mind to some other subject for which you are better prepared. Ultimately you will by another line of thought arrive at data which will apply to the previous subject; and although it may not enable you to solve the problem, it will extend your knowledge, and some other line of collateral study may furnish the needed data.

If you have insufficient materials to build, stop building and collect the material. When you reach the apparent limit of thought in one direction, drop it and proceed in another direction, and at last many converging foci will enable you to attain original ideation. As soon as thought becomes puzzled and effort at thinking barren of results and the mind feels uncertain, it is invariably an indication that you need new images, concepts, ideas, and thoughts relating to that domain of knowledge and new enregistrements in those areas of the brain where that class of

knowledge is enregistered; or perhaps upon ancillary subjects. All truths so fit into each other that one subject is often best investigated through the phenomena of an allied subject.

It is not difficult to draw conclusions, deduce laws, and construct generalizations regarding any possible subject of knowledge if you have the right kind of data in the mind; that is, if you have the associated and grouped memories taxically enregistered and have properly stimulated the subconscious functioning. The difficulties result from the attempt to force a thought without first getting the sub-units out of which it must arise, to puzzle out a truth without having acquired the intellectual and structural elements which make the conception of that truth possible. Do not imagine that by straining the mind you can force Nature to reveal her secrets; this is the most grave and fatal error common to thinkers and investigators. They imagine that perseverance in inductive experiment and in thinking about a subject is all that is needed, when as a matter of fact this is but part of the process. The healthful mind filled with ample data will draw conclusions as naturally as the healthful stomach digests food; but both must first have proper food to digest, and it must be given in proper quantities and qualities at proper times.

Great specialists are those who know most about all the

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sciences which relate to and are ancillary to their subjects. The specialist who studies his favorite theme exclusively would have too little knowledge properly to express himself; too little mathematics to compute the simplest formulae; too little physics to comprehend any of the objects in his own specialty.

That is original to the individual which is new to him, which he has achieved by his own mind and effort; although it may not be new to the human race. For his own study of his own mind the student should keep a record of all his original work, even if some of it had been previously discovered by others, carefully marking it so he will know that some other mind was first to discover it, so he will have a complete record of the original work of his own mind.

Belief and Meaning. We are prone to attribute more meaning to the words and sentences of ancient authors than was meant to be in them. One celebrated Greek philosopher made the guess that the Milky Way was composed of stars, but we cannot say that he discovered that fact, because he did not prove it. Ovid guessed that animal life was spontaneously formed in the ooze of the sea-shores by the action of the sun; this is not equivalent to the discovery of the cellular origin of life. We are apt to read into ancient writings our modern conceptions, greater clearness of thought, and more thought than they possess.

If a person has demonstrated his or her capacity for original thinking, it is profitable to study their utterances from a different standpoint than that of their own belief. If such people express themselves freely it frequently happens that their insights are couched in language and metaphor that conceals, even to themselves, what they are trying to say. A person accustomed to metaphysical language and forms of expression will express verbally a true insight into a phenomenon in totally different images and concepts than would a person accustomed to theological forms of expression; and both would express the same insight differently from a physicist or mathematician. If we study the utterances of unbiased thinkers more carefully, we shall find in what they say far deeper meanings than they have intended to express, or than they would even be capable of understanding. These honest utterances are often naive attempts of a mind to approximate truth by a dim meaning that remains unknown to the thinker. The insight which a thinker first obtains, however erroneous that individual's interpretation of it may be, is often the beginning of a discoverable relation or connection.

Looking upon such an utterance (thought, myth, religion, or philosophy) as a cosmical product produced by ascertainable conditions, it is obvious that if we understand that person's *form* of thinking and his imagery and his modifying and distorting

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beliefs, we may determine what his mind saw and did not succeed in saying. This requires a study of the modifying effect of concepts upon concepts, of beliefs upon concepts, of beliefs upon images, of images upon beliefs, and, in brief, of conscious integrants upon other conscious integrants. Thus a belief in any particular mythologic system modifies all the images, concepts, and ideas that may enter the mind, and such a person discussing true relations between phenomena, would think them, image them, and express them in a totally different manner than a person having no such mythic conception, or than one having a different religious belief. The modification of beliefs on thinking, language, brain-structure, emotions, and conduct thus assumes a scientific basis and discovers to us a *method* of study — a standpoint from which to view the diverse phenomena of belief — a new insight. It enables us to plan interrogations of Nature. It can be shown how a wrong image or belief regarding the world distorts all subordinate images of its parts. Myths should be studied, not for what they verbally teach but for what they esthetically or poetically or philosophically imply, and especially as products of mind interacting with cosmic phenomena and as modified by previously acquired wrong concepts and false images and prejudices. As

such, their utterances are indications of actual conditions and insights confronting mind wherever and whenever it confronts the universe of things. Beliefs and myths are not born of one mind alone — but are the cumulative products of generations of side-tracked minds, and are, therefore, products of the mentation of the mind of humanity. The same phenomenon has been differently interpreted by different minds because the contents of those minds differed. The previous content of the mind modifies what subsequently enters.

Personal Qualities and Original Ideation. The world's great persons are its originators; they lead progress, and great indeed has been the progress in science and the arts during the last several centuries through the activity of men who had the capacity for original investigation. But much greater progress may be expected when once thinkers no longer violate the most essential conditions of intellection, emotion, and conation; when once they put into practice the laws and conditions which will aid and regulate mental functioning. Instead of having a few persons of great genius, there should be many such persons, and each person instead of acquiring one or more notable ideas, will acquire many such ideas. During the early years of Herbert Spencer's life, while he was engaged in activities that were not confined to special routine work, he conceived the great Philosophical principles which made the reputation of his life. In 1860 he wrote out for an American (Youmans) a brief exposition

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of the principles of Universal Evolution, and during all the subsequent years of his life, while he added much important detail, he added no important new conceptions to that utterance. Darwin, on the other hand, by research added to his early conceptions for many years.

Such men constitute the chief forces of human progress and bring to the human race those *first causes* which shape civilization and religion and races. Hence the importance of the art of using the mind, which initiates among men new ideas and which puts into functional order the mental machinery so as to systematically produce greater numbers of these saviours of the world. The recipients of original ideas are profoundly convinced of the truth and importance of such ideas, and having the conviction and zeal, they generally are the proper persons to put them into form among men. A new conception appears before the consciousness of genius like an apparition to Joan of Arc, imperatively demanding immediate acceptance, and commissioning the recipient with duties as if from high heaven.

Originality is manifestly the greatest source of human progress;

and it is time that it be harnessed. Progress is most largely the effect of evolutionary processes over which individuals have but little control until the dawning of the power of original ideation. Then the individual becomes of prime importance in shaping the destiny of the race.

If the masses did not gradually reach the level of its greatest thinkers and newest discoverers, then the new thoughts and ideas which mark an upward advance could not be appreciated or applied, hence the function of the teacher is complementary to that of the creative thinker. But he who brings into the world a new idea or a system of ideas or an ideal, becomes the ruler of generations of teachers, and brings into the life upon this earth a force which shall dominate all the succeeding thought and conduct for ages. But whether actuated by genius, or by the conviction of the teacher or worker, success depends more upon the *personal qualities* than upon anything else. Lack of personal qualities which please, and lack of tact and knowledge of sociological laws, makes a martyr of the new ideator.

A great man comes as an event most conspicuous; the crowd singles him out at once as something beyond the ordinary. The people ask, "Who is it?" They conclude he must be some great man, simply by his bearing and presence without hearing a word or seeing a gesture. The favor he asks they grant without thinking whether they should or not: a favor which if asked by another they would not even have thought of granting. If a man has not this personal force he may go heralded with recommendations and armed with sureties and yet fail, whilst the great man goes

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as a beggar and succeeds in a day! Men are disappointed if they meet one whom they deem great and find that he does not look a god. The man who had a presence which commanded all he met became quite ordinary after he failed and gave up what had previously been his one aim in living — the power which manifested in him had disappeared and the strange effect of his presence was gone. If he had been still hopefully pursuing the old purpose he would not have lost that bearing and invisible potency. The young man with insufficient self-reliance to deliver a declamation suddenly becomes a commanding leader of thousands after acquiring a great conviction which begets an enthusiasm.

The first step to take to acquire this great personal power is to embody more mind and moral disposition and personality — dominancies of the normal type; then to acquire the corresponding conduct-habits in a normal vocation. Having done this the next great step is to arrive at a definite conviction and a purpose, and be inflexibly true to that aim under all circumstances. If it be a good

work all good powers will come to its aid. An immovable nature and unswerving purpose will reveal itself in every bearing and tone and look, and will cause obedience in all lesser natures; the high purpose which speaks in every lineament and expression will win universal respect. That man will have a presence capable of outshining all lesser presences. Whatever tends to cause this will to waver, and these affections for the life-work to become fickle, whatever distracts the attention or the conduct from this aim, will at once weaken this invisible force which surrounds every great life like a magical charm. This all-dominating presence which is sometimes called personal magnetism — this towering greatness of these Caesars of the world which makes others, Cassius-like, go peeping under great men's legs — its personal power which, though unuttered and unexpressed, exercises a magic rule over all who come within its influence — this power, great as it is, cannot be manifested without greatest danger of defeat when its possessor is fatigued, or poorly nourished, or worried, or katabolic, or in doubt. Men who are active in shaping the growth of others should go immediately alone when they become tired and direct the attention to the anabolic feelings, recall the good motives, and rest. An hour of deliberation when a person is rested is worth a day of haste. In the seclusion of his own presence he should remain until all doubts and uncertainties have passed away; he should think it over and experimentally study it until his plan is perfectly sure, and then go forth with certainty.

The power within each mind to criticize itself from a withdrawn and higher standpoint is the source of all our higher

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insights, and could you but simply heed its correctly interpreted admonitions you would make few if any mistakes, you would have but few unhappy moments, and you would be wise beyond your contemporaries. The idea which comes to you in a quiet moment and explains what you most desire to know is a revelation for your guidance. These glimpses which flit athwart your consciousness will, if you obey them, give truth for guidance; but you must not mix with artificial customs, beliefs, prejudices, and other sentiments which you have learned by association, or you will so distort the leadings that to follow them literally would prove dangerous.

Importance of Originative Mentation. Scientific method is the outcome of the development of science in general; but he who knows best how to use the mind will best be able to use the scientific method. We have many great minds in the world, and we have evolved a scientific method, and we know how to experiment, but mentation has not been scientific. It seems to have

been and to be chaotic, methodless, and unscientific. Much of what has been called scientific thinking is a very immature and partial form. In fact, thinking has consisted of a haphazard and almost methodless groping from one experiment and observation to another; the details recorded and occasionally thought about in a desultory way.

The notion that genius is something miraculous, in any different sense that all mind is miraculous, is not the opinion fostered by this study. Systematic methods of mentation point out the way whereby a much larger number of people can become great; and great people can become greater; and whereby all people above a certain mediocre degree of evolutionary development can become discoverers and inventors, or creators of the beautiful, and thus add to the world's progress; that is what constitutes greatness.

Original thinkers have solved great problems, but they often studied and tried year after year and in vain, because they violated nearly every condition of success and failed to comply with the only conditions which could produce success. Many a man has been content to arrive at one new truth in a lifetime, many a man has tried with a lifetime effort without arriving at a single one. Why? Because he did not know how to try. The mind must first be supplied with the enregistrations — with the intellectual, emotive, and conative material to be used in the originative functioning, and the physiological and psychological conditions of the functioning must be maintained and many other conditions secured. If mentation is thus regulated understandingly, it can be very much increased in effectiveness. Will not much better and more numerous results be obtained in this, the

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greatest of all human efforts and processes, if not left to chance and haphazard attempts?

The fact is, our original thinkers have paid all their attention to an effort made with a few of the mental faculties, using only a few of the data of a subject; have experimented (which was well), have tried and tried, then failing, gave up the effort. They did not seem to know that upon their brains, and the right use of them, they must depend for the longed-for results; they were not seemingly aware that the subconscious processes of the mind were set in motion by these efforts, and that if they were regulated and supplied with what they needed for *functioning*, the result would soon be forthcoming and flash into consciousness from the impenetrable depths of the mind-organism.

No amount of study or work can make up for a defective brain or for wrong habits of mind; hence brain-building and the mastery of the science are prerequisites. From identically the same facts

and study and knowledge and prospective intellection, the greater mind will produce or derive the greater number of new ideas and conceptions. Progress depends upon increase of brain capacity in structural and functional power; that is, upon mind-embodiment. Progress depends upon new ideas arrived at by brain functioning.

The *principles of mind-building and brain-building*, very briefly and simply stated, are that every conscious mental experience that is sufficiently vivid and of sufficient duration to be discriminated from other conscious states is enregistered by chemical and structural changes in certain cells and fibers of the cerebral cortex, and the re-functioning of that enregistration is the remembering of that conscious state. Every conscious state thus enregistered is a datum in some one of the sciences; the acquiring of science gives the individual more brain and more mind. By properly regulating the education any part of the brain or mind may be rebuilt; by building into any part of the brain where there are useless or “bad” memories a greater number of useful or “good” memories, and keeping the good ones functioning the bad ones will atrophy and the person be morally re-born.

The highest results will be attained when the child is properly brought into the world and educated during infancy so as to embody as many memories as possible in all parts of the brain and from every domain of Nature and knowledge; and when the normal, predilective, taxonomic dominancies have been developed from youth up. When this has not been done, the next best results will be achieved by those who re-organize their entire mind-embodiment and moral disposition and personality; and the next best results will be possible to those who re-organize only

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those particular dominancies of the brain which relate to their particular pursuits.

Gigantic efforts are made all over the world in our schools, colleges, and churches to teach knowledge and morals by books, experiments, and precepts; the result of other’s investigations are memorized, and the student who would arrive at some new results in any line is left to try as best he knows, or as happens. It is well to learn these subjects by reading and re-reading these books — but vastly better it would be to turn our attention, for once in the history of the world, directly to increasing the mind as an organism which does our thinking for us, and makes for us our judgements, desires, will, hope, conscience, and understanding. We do not do the thinking — the mind does it for us. Get a mind-organism more highly differentiated, by embodying it in more MIND, and then these same subjects and studies and efforts at original thought will be mastered much more quickly, easily, and completely. And this

is a laudable ambition — to discover and teach truth.

In bringing to a culmination the possibilities of the immediate future of civilization, original thought stimulated in the multitudes, is above all else most necessary; but complete intellectual freedom is needed in order that thoughts may no longer be opposed by any of the open or insidious forms of intolerance. To develop complete individuality of utterance is to open the door for the coming of geniuses. To prepare our institutions so that they may immediately take advantage of validated new ideas and make them parts of their working systems, is to prepare an ovation for every great thinker who may come into the world. The advent of a new and true idea, thought, or ideal in the mind of man is of more importance than the rise and fall of a kingdom. Therefore, the regulation of the mind so as to take advantage of all favorable periods for original ideation and to draw it out and put it to work, is an art that all should learn. Truth's treasures are under lock and key — the key is the art of using the mind.