

## PROPOSED PSYCHOMETER INDEX

DESIGNED AS AN AID TO THE

BETTER DETERMINATION OF COMMON FUNGOID ILLUSIONS

AND OF THE

COMPARATIVE VALUE OF MENTAL CONCEPTS.

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### INTRODUCTORY.

In a subject of the nature indicated as above, it is desirable to avoid the very common mistake of at once launching into the mazes of a complicated argument while employing terms which are either ill-defined, or are apt to receive different interpretations from different persons.

The whole value of an argument often depends upon the exact definition of one or two important terms, and where such terms are loosely applied and but vaguely understood, the outcome of discussion, so conducted, must result in confusion of judgment.

The point around which the present argument hinges is the word illusion. By illusion is meant any error of sense, perception, memory, or representation, or of judgment based upon these which counterfeits reality.

In one particular sense it is admitted that the objective aspect of all subjective concepts is illusory; but, in this sense, concepts, for the limited purpose of this argument, are not regarded as "fungoid." For the purposes of the present argument it is sufficient to confine ourselves to the commonsense appreciation of phenomena, and to what are commonly regarded as realities of common sense. Thus limited we may define all counterfeits of realities as illusions of commonsense.

By reality is meant the opposite of counterfeit—e.g., the pictorial representation of the features of a person, scene, or thing is a counterfeit when not regarded as a symbol of the thing represented. Art has reached a high limit when it produces illusion. But the art of the modeller, sculptor, mechanic, or necromancer can only succeed under restricted conditions as regards healthily constituted minds, armed with the full complement of the ordinary sensiferous organs. Those who lack, or who are deprived of one or more of the essential normal senses, can never be certain of freedom from illusion.

It is by the sister or auxiliary senses that we continually—perhaps unconsciously—correct our impressions, or take "our bearings," so to speak. Deprive anyone of these natural auxiliary aids, or even weaken or render any of them artificially inoperative, and lo! the individual mind is a ready prey to all the illusions and disorders of sense and imagination.

The senses, however imperfect in the normal condition, are wonderful checks upon each other. Combined, they are the props of true knowledge and understanding. The most simple impressions are liable to be illusory if the particular sense concerned be weakened by disease or overwork. Render inoperative, or weaken at such a time the sister senses, and the strong commonsense appreciation of the

real differences between orderly waking or primary concepts, and imagination, memory, dream, illusion, breaks down, or disappears altogether. In fact the conditions under which the insane are bound are then most closely realised. Let those whose inexperience may have led them hitherto to trifle with the full value of the natural guardians of our reason beware of this consequence when they would erect the illusions of the crippled senses into equality with the evidence of the combined senses when free and unconditioned and at their best.

Although in a waking state, and under ordinary circumstances, we may have within ourselves a tolerably clear and unmistakable standard of what is real and unreal, yet at times, and with relation to particular concepts, there may be produced a very gradual and subtle blending of the two.

Especially is this result apt to arise when the region of fancy is in its most active state.

#### THE REGION OF FANCY.

There is something most mysterious and perplexing in the concepts of fancy. They flit before our minds in myriad shapes, moods and colors, without summons; change their humors as in a kaleidoscope before we can well define them; and finally vanish, but to appear again and again, under favorable circumstances, as at first. Many suppose that the world of fancy, automatic introspection, or imagination (clearly distinguished by the conscious mind in health, from what, for want of a better description, we may call "external perception") is only fully disclosed to our minds during sleep or in delirium. But this supposition is traceable to inattention or inexperience. The retrospect of memory, the poet's trance, and the air castles built by the waking dreamer gazing upon the burnished cloud or glowing ember, although allied creations lack the vivid tone development of those creatures and scenes of fancy which startle us in the horrors of nightmare, or elate us in our more exalted moods during sleep. But the waking state has also an undercurrent of fancy which in every respect is analogous to our concepts during sleep.

#### UNDERCURRENTS OF FANCY EXPERIENCED DURING WAKING STATE.

During our active waking state, when the external world has its maximum effect, the senses are continually drinking in fresh concepts at their various portals, each sense interpreting its varied impressions with that order and consistency which distinguishes the character of external impressions or fresh concepts. The reception of these primary concepts, characterised by their greater intensity, eclipses the softer reflex echoes of the imagination just as the stars are blotted from our vision by the approach of the radiant sun. The reflective imagination is not necessarily reduced to absolute inactivity, but rather it is that to the imaginative listener the louder speaking voices eclipse the more feeble.

The ghosts of the waking state are clearly analogous to the horrid nightmare demons of sleep. Such horrid dreams may be produced artificially by wilful interference with the breathing of the unconscious sleeper. (See "Illusions," by James Sully, p. 126—International series.) Thus, disturb the breathing of the unconscious sleeper by placing a heavy fold of the bedclothes over the mouth and partly the nostrils. By degrees his face flushes, the skin exudes a sweat, the limbs are aimlessly jerked about as if in distress, and at last it is so oppressive as to awake the unconscious object of our experiment, who immediately proceeds to relate that he has awoke from a frightful dream, wherein he vividly felt he was being suffocated by some monster of horrid shape who sat upon his chest and grasped his throat with angry claws.

But intense fear during the waking state may at times, with superstitious minds, produce somewhat corresponding distorted concepts. The young and timid whose minds have been saturated with the weird legends of the Scottish Highlands, are at times specially subject to the influence of such disturbing illusions when obliged to travel alone in the silence of the night through dismal glades of sighing pines and peopled by repute by ghostly shades. To such it is possible that the indistinct outline of a dead stump faintly shining by moonlight, the phosphorescent fungus, or even a curi-

ously shaped nodding furze bush, to their half-averted but spell-bound gaze, may be distorted into forms as unreal and horrid as those due to indigestion or other interference with the necessary vital functions during sleep.

The imagination it would seem has the power under expectancy, fear, or extreme pleasure, to order and magnify generic reflex groupings of images which agree with the simple state of fear, pleasure, anxiety, and suchlike; but it has not the power to be specifically accurate or consistent, and thus it would seem to be the blind groping of a dim generic grasp, not of specific value like the consciousness of the undisturbed waking state at its best.

Let any one in a quiet mood, as he is musing before the evening fire, purposely close the eyes, and, to increase the effect, place the palm of the hand lightly over them to exclude, as far as possible, the still active effects of external impressions. He will then find the images of Fancy bursting apparently upon the view of sense in that strangely vivid, changing, incoherent evolving and melting away character; and yet, withal, giving an illusory sort of impression that there is a reality and a natural sequence in the shapes, forms, colors, and pictures, which rapidly displace each other as he gazes.

These gleams which we are permitted to be the spectators of are not or are but feebly under the control of the conscious will. The writer has frequently tested this fact by personal experiment. On the last occasion he did so his own thoughts were to a large extent impressed with the scenery of the Huon road through which he had travelled that day. Although he purposely tried to work into the unbidden scenes and images which floated before his mental vision, the form of a wattle tree in blossom, he found he was unable to order its inclusion in many wooded scenes that unbidden would vividly evolve to his conscious sense. One remarkable scene seemed to thrust itself unbidden, again and again, viz.:—a small rocky promontory crowned with a group of the graceful she-oaks so common on the margin of the estuary of the Derwent (*Casuarina quadrivalvis*.) In the sheltered bay beneath this rocky cliff scene

where he felt he was situated he could see distinctly the wave-ripples, and reflections of the sun's rays, together with a strange bright patch of sunshine which seemed to brilliantly light up the sea at its base. He tried to force a change by the attention of the memory to the romantic Huon scenes, but he found he could but slightly vary the sea cliff scene already described, the patch of light still forming one of its distinctive features. On other occasions he had no difficulty of picturing the wattle tree in blossom, but in every case he felt he was as much a spectator as one feels in sleep amidst the scenes of dream-land.

It is quite possible, therefore, that the proverbial moods of some people—the grave and the gay—may, to a larger extent than we are aware of, be colored by this unsuspected undercurrent of fancy during our waking moments.

My chief object in drawing particular attention to the region of Fancy is to show that under peculiar circumstances it is conceivable that its hidden reflex activities may surge up among the primary concepts of the senses, and thus be the origin of sense illusions even in the minds of those who are otherwise of a sound, healthy constitution. It is quite clear that these undercurrents of Fancy are distinct from ordinary concepts of memory, although it is not improbable that memory and fancy concepts are intimately related, and may powerfully act and react upon each other. The curious way in which a memory—say of a name which we at the moment in vain try to recall—bursts in unbidden soon after upon a foreign train of thought, is very remarkable, and it is therefore quite possible that through the hidden agency of active undercurrents of Fancy the dormant memory may be awakened.

Illusions, as regards simple concepts, are comparatively rare among sane persons, where all the senses are free or unconditioned and healthy. External or primary sensations of forms, colors, sounds, touch, motion, and such like, are for the most part readily distinguished from simulations of realities, even in some cases of partially impaired sense organs.

There are numberless circumstances, however, which readily tend to produce



illusion in the minds of persons untrained and inexperienced. For example, persons strongly tend to believe in a second shouter, while, for the first time, they listen to a remarkable voice—echo. Similarly the untutored must also be strongly impressed at first with the illusory reality of reflected sight objects. Who, again, has not felt the powerful tactile illusion of duality in unity by crossing the finger tips—preferably the second and third—while with eyes shut pressing the surface of a round object, such as a marble or the tip of the nose; or the converse of this—unity in duality—in the pressure upon the skin of the body by the two adjacent points of a pair of compasses?

If in such cases the particular senses were not aided by the more extended experience of others, and by free comparisons and repeated trials in conjunction with the sister or complementary senses, we should all be subject to illusions to a much greater extent than we at present conceive.

Where, on the other hand, the senses are not merely unaided, but are crippled by conditions which are unfavorable for the reception of clearly-defined and undisturbed concepts, we may be certain, that as sure as the lowly organised fungi attack and destroy the more highly organised animal and vegetable forms whose vigor has abated, or whose tissues are diseased, so sure is it that fungoid illusions will be ten upon and distort the judgment of all those whose hidden springs are poisoned at the source by conditions unfavorable to the formation of strong healthy primary sense concepts.

COMMON FUNGOID ILLUSIONS.

The references to what have been termed "Common Fungoid Illusions" in this argument, are restricted to a few common types, and do not pretend to comprehensiveness. One or two types have been chosen which are particularly characteristic of our own race and age. It would be less difficult to bring conviction to most people with regard to the prevalence of gross illusions among lower races of men, or among people of a bygone age; for it is proverbial that errors of this kind are likely to be more correctly appreciated from the standpoint of an observer

untrammelled by local influences. If we refer, therefore, to the illusions of the existing lower races of men, or to those of ancient times in regard to demonology, witchcraft, astrology, epilepsy, lunacy the shape of the earth and its position in the solar system, and such like, it is merely to show that the natural fruit of ignorance is illusion of some kind or another. Illusions are sometimes mimetic, and like all organisms of a mimetic character, they are difficult to distinguish from the surrounding conditions from which they take their shape and color. There are many current illusions, therefore, which are only superficially different from those of older times. They may be clothed in a pseudo science garb, in mimicry of the prevailing spirit of this age; but, fundamentally, they, on examination, will be found to present the well-known features of the fungoid illusions, which in all ages have been known to prey upon weakness and ignorance.

THE ILLUSIONS OF IDEA SYMBOLS.

The first examples under this division refer to those "fungoid illusions" so closely associated with all forms of the outward expressions of the ideas; especially those related to the sound-symbols of articulated words, and those related to the form, sight, or touch symbols of all kinds of writing. Simple pictorial representations being more natural are less liable to be illusory. Perhaps no age has been subject to this form of illusion so much as the present, and paradoxical as it may appear, there is good reason to believe that many of the so-called "educated classes" are likely to be as great slaves to the myriad illusions arising therefrom as are to be found among the illiterate.

What we know, think, and feel, and through what chains of previous knowledge we have arrived at our present condition can only be disclosed partially to others by means of idea symbols. Outwardly we can observe a man laugh, cry, speak, sing, gesticulate, but even though we could enter and penetrate to the remotest molecule of his brain we could not by all our perceptive organs of sense discern his actual feelings or thoughts.

If in ourselves there were not an orderly and consistent connection in the ordinary casual relation between certain

similar groups of such external symbolic sounds, forms, gesticulations, and expressions with our own concepts, thoughts, and feelings, we could not hope to understand others, or be understood by them. Laughter in another, e.g., might really in itself mean grief, did not such outward symbolic expression correspond with a similar causal relation between our own constant forms of outward expression and our inner real feeling which we have learned to designate by the word symbol—laughter. (See Lange's *History of Materialism*, Vol. II., 316.) To the inexperienced this analysis may seem trivial, but it is really necessary; for it will be disclosed presently how closed all forms of illusion by the intervention of word symbols, may, through mistaken interpretation, result in much unnecessary strife and confusion. For it logically follows that if any idea-symbol be used by anyone in an abnormal way, whether in ignorance, at random, or as a wilful misrepresentation, he is likely to produce a wrong conception in the minds of those who are in the habit of using the idea-symbol correctly.

#### ILLUSIONS RELATED TO WORD SYMBOLS.

The form, color, intensity, and specific significance of actual ideas can never be closely approximated by the agency of words between persons whose capacities differ, or whose mental culture may happen to be at different stages of development.

Every cultivated person knows from experience that particular words or phrases related to complex ideas—although at first used familiarly in a general sense—come by closer study and wider culture to stand for a much broader, deeper, and clearer conception than that afforded by the insignificant seed idea which at the first stage was associated with the particular word symbol in this person's mind. It is at this stage where confusion is apt to arise in controversy between good, earnest men. Philosophers, too, find in this region their favorite battle ground. But as regards the latter, so long as distinctions remain unclassified, it is perhaps well that a wisely conducted conflict should be maintained; for it is in such conflict that we come to expand the new idea, and to form the needful expression. The ignorant person, as well as the

superficial word glutton, so largely produced by our gramaphonic systems of education, only catch remotely the order of genus of the cultured thinker's idea. To the class referred to—the Species, or the fully developed light and shade of the cultured person's idea is more or less concealed in penumbral darkness. The illusions which arise out of these differing conditions, however, are often very disastrous; for to these may chiefly be attributed the reason why the prophets of each succeeding age have been stoned, crucified, maligned, or otherwise maltreated. The fungoid illusions which batten upon forms of expression have been the cause of much evil. That the evils arising out of word illusion is not exaggerated may be easily proved. Let anyone attempt to get a clear grasp of the ideas of any two persons of average education with respect to the real nature and particular meaning of the following group of idea symbols as used by the learned, viz.:—

Anthropomorphism, Atheist, Christian, Communist, Deist, Darwinian, Determinism, Evolutionist, Hypnotism, Paganism, Pantheism, Realism, Sceptic, Socialism, Teleologist, Spiritualist, Agnostic, Mind, Force, Matter, Spirit, Soul, Body, Ego, Non-Ego, Religion, Moral sense, Will, and suchlike.

These terms cover a very wide field. They are in common use in some sense by the learned and unlearned; by the learned of opposing schools of thought; but as there are comparatively few who take the honest trouble, or have the mental capacity to understand in their fullness the history and complex ideas underlying these words or symbols, it follows that they must be fertile sources of illusion; and the fruit of such illusion, where strong feelings are concerned, have been, and ever will be, confusion, bitterness, and strife. The proof of this is manifested by the frequency of the use of terms ending in *ist*; not so much as an expression of the appropriate underlying thought or feeling, as of a dim notion of a quality involving reproach and depreciation. Clearly to all such the particular term is illusory; and the application, so far as intention is concerned, is likely to be as false and unjust as when at Antioch, the fierce opponents of the followers of

Jesus Christ, coined the term of reproach "Christian," now fortunately transmuted into one glorious to humanity.

As a further illustration of the common illusions related to word-symbols, let us examine the illusory conceptions so frequently held by many persons with regard to the use of the terms Matter and Mind. The illusion to such persons is, that we know directly a substance of matter as distinct from mind. And again further it is conceived by such persons that matter, in itself, is dead, inert, distinct from, and less mysteriously constituted than that part of mental phenomena to which they restrict the term mind.

This is a common fungoid illusion. The cultured thinker knows and can demonstrate logically that the substance of matter is a hypothesis of the mind to account for certain of the mental concepts chiefly related to direct primary impressions of sight, touch, and muscular effort. It can be demonstrated to minds sufficiently developed to receive such demonstration that all our concepts—whether relating to form, color, space, time, resistance, opacity, transparency, smell, heat, cold, hunger, thirst, weariness, memory, mental introspection, self, not self; in a word, all sensations are mental. In the words of an able expositor (Huxley) immediate knowledge is confined to states of consciousness, or, in other words, to the phenomena of mind. Knowledge of the physical world, or of one's own body, and of objects external to it, is a system of beliefs, or judgments, based on the sensations. The term "self" is applied not only to the series of mental phenomena, which constitute the *ego*, but to the fragment of the physical world, which is their constant concomitant. The corporeal self, therefore, is part of the *non-ego*, and is objective in relation to the *ego* as subject.

Elsewhere the same able expositor states clearly, "that if we possessed no sensations but those of smell we should be unable to conceive a material substance. We might have a conception of time, but could have none of extension, or resistance, or of motion; and without the three latter conceptions, no idea of matter could be formed."

It may be conceived, therefore, that the only knowledge we consciously possess,

directly or indirectly, is purely mental. One portion we call external perception; other parts (including feeling, judgment, memory, dream, delirium, illusion—all parts of one whole) purely subjective, and equally mysterious. The mind tends to infer, ejectively, its impressions, as symbolic of a mysterious objective, something external to it. That is all.

The Æolian harp, if endowed with the sense of hearing only, and so limited to the range of its own chord sounds, would conceive its own chord, objectively, as external to itself. It would tend to seek external to itself the exact origin and idea of its own specific sounds. It could not dream, as the objective cause of its own subjective chord sounds, the gentle vibrating breeze, except in the manner of some Æolian harp sound.

THE COMMON ILLUSION THAT MEN OF CULTURE AND SCIENCE HAVE A SPECIAL TENDENCY TO BE SCEPTICAL AS REGARDS TRUTH.

This may be regarded as a type of the many fungoid illusions which naturally arise in the prejudiced and antagonistic minds of the slothful and ignorant.

Lovers of ease favor conceptions which involve no trouble of mind. To hold the mind in suspense when in doubt, and when immediate action is not imperative; to sift the grain of wheat from the associated chaff; to qualify the observation with the ascertained knowledge of one's personal equation of error; to seek truth with a single eye in scorn of cowardly fears regarding possible consequences to one's self; to suffer misunderstood the mental pain of transition of thought due to the unequal growth and change of the intellect and one's personal clinging ideals and sympathies, are matters which are no more than the sound of words to the indolent mind, whose faith, too often, is a mere accident of time and place. The indolent mind is irritated by complexity, and insists upon the enjoyment of simplicity, even though it should be artificially created by the mutilation of valuable complex truths.

It is not here maintained that the earnest enquiring mind is not advantaged at times to desire when wearied a somewhat similar refuge. But to the latter it is consciously sought, and is the well-earned repose after the strain of mental



toil. In their case it is the natural half-sleep following upon mental activities wherein at times the great and beautiful generic truths of poesy and parable have their birth. It need not be pointed out, however, that there are many indolent of mind amongst us, while the group of earnest and thorough thinkers are few. It is not surprising, therefore, that the aims and methods of the scientific worker should so frequently be misunderstood and misrepresented.

Of course it is not meant that the opponents of scientific work and methods of investigation are so unjust as to suppose that the alleged tendency to scepticism, on the part of the men of science, would be blameable in matters which are false or which appear to be so; for in such case there would be no room for discussion.

To oppose even the appearance of falsehood or vice is a healthy attitude, and can only be considered objectionable by those minds antagonistic to truth and virtue.

As a matter of fact, the charge as regards scientific observers is manifestly absurd. Science is simply carefully proved knowledge. True men of science are those who are ever actually engaged in wresting the fruits of knowledge from the vast unexplored regions of nature, and whose highest reward is the feeling that, by their labors and discoveries, they have conquered some part of the region of chaos, doubt and obscurity, to the great benefit of their kind. The railway train in rapid motion may cause the illusion that the increased resisting current of air is in itself moving more swiftly than when the same train is at rest.

In like manner inexperienced minds see only in the active forward advance of scientific investigation, the sifting, weighing, and measuring processes, and often labor under the illusion that because in this pioneer work the workers are obliged to reject large quantities of truth husks, the latter process—and not the acquirement of the fewer and less conspicuous truth grains—is the particular object of their remarkable activities. Their positive advance, and greater need to discriminate and to reject, being a mere consequence of their relatively greater love for the acquisition of more truth or know-

ledge. Relative to the indolent they appear to reject more—nay, blunder more—but it is altogether due to the fact that their love for knowledge is more active. Those who can endure an imperfect mixture, or do not love purity, need not reject much dross; but it is hard that the refiner should be blamed for the unavoidable accumulations of the conserving and refining processes.

#### ILLUSIONS DUE TO INEXPERIENCE OR DEFECTIVE EQUIPMENT ON THE PART OF THE ACTIVE OBSERVER.

Thoughtful men are well aware of the danger of being over-sure about matters which many able men have arrived at profoundly opposite conclusions. The thoughtless have no such dread. And yet, though all our observations are so apt to be faulty if not properly directed, few think that for exact observation in any special branch of knowledge, special aptitude, and a long, careful training in the instruments of observation are absolutely necessary. For example:—Look what long years of patient training of the muscles of the hand, ear, and eye, is necessary before the musician can render with skill and feeling the masterpieces of a Mendelssohn or a Schumann. The skilled botanist may be called upon at any time to distinguish a new plant, and to describe its characters. But in order to do this satisfactorily he must be prepared to show in what respect it is related, and in what respect it differs from, say, about 85,000 flowering plants already scientifically described and classified. When we learn also that prior to the proper study of botany and zoology, the student, by laborious training in morphology and physiology, must equip himself for the special work, we can have some notion of the pains taken by men of science that observations, in the line of their studies are not marred by lack of skill or of previous training. Nay, so necessary is it that all scientific observation should be carried out with the greatest rigor and exactness, that the greatest pioneers in scientific investigation have been the foremost in the discovery of more perfect instrumental aids designed to further extend the range and neutralise the errors of our senses, and in this way secure that precision which modern science demands of its followers.

It takes the great expositor and thinker, Lange, over 1000 closely printed pages of matter, to unfold to us a mere abstract of the history and meaning of the schools of materialism and idealism. Bastian, with numerous carefully executed figures, tries to convey to us in 700 pages of descriptive matter a summary of his own observations regarding the structure and functions of the brain. Hitzig, Ferrier, and other skilled specialists, had long and profoundly studied the functions and physiology of the sensorial apparatus of the brain in all its bearings, and their combined testimonies have been of the greatest service to us in dissipating many of the older and cruder conceptions of phrenology and physiology, and in explaining many of the more mysterious problems of mind and body.

One important lesson has been given to us in regard to observation, which has an important bearing upon the subject of this argument, viz., that not only as regards eyesight and for astronomical observations merely do we require to provide ourselves with a carefully determined "personal equation of error," but every other sense should be similarly guarded as they are all subject to varying degrees of error under certain conditions. From what has already been stated it is obvious that should any untrained person think he can properly understand the mysteries of new and complex phenomena, without first studying carefully the laws which make phenomena at all possible to him, together with the ascertained conditions of sensorial error, he will undoubtedly and unconsciously land himself in the Cimmerian darkness of illusions, kindred to the ancient witchcraft or its twin sister, spiritualism, now so often guised in modern pseudo-science dress.

To the cultured thinker all phenomena are purely mental and subjective, and as such are equally mysterious. To the average spiritualist only a small portion of phenomena, and that the most disordered and unreliable part seems to be regarded as possessing any wonder or mystery. The most orderly, valuable, and equally mysterious part of subjective phenomena—orderly primary concepts—is despised by the spiritualist for the vulgar reason that such orderly manifestations are as common as the green

grass; and yet the profoundest thinkers see in the lowliest organism so common by the wayside a mystery greater than that of human folly, whose epidemics have so often puzzled the moralist and psychologist.

Whilst dissecting the living tissues of the common triglochin and other weeds of our ditches under the microscope, I have often been impressed by the beauties of structure which are shut off from the feebler powers of the unaided eyesight. I have watched the mysterious life of the cell in the humble yeast plant and desmid, and I have seen the living building processes grow into form and beauty before my wondering sense, and a feeling of awe has frequently filled my mind, as form after form seemed to come mysteriously into existence before my eyes, and to frame themselves upon a structure of wondrous design and beauty. Each living "brick" in itself being guided and determined in its course as if by the immediate agency of a hidden Almighty finger.

Most naturalists have been similarly impressed while contemplating the silent building forces of organic nature. They are thus frequently reminded of the mystery underlying the more familiar and perhaps uninteresting externals of common objects. They are also so accustomed to witness mysterious design and movements for which they can give no explanation that they are not so apt to be led into illusion by the appearance of phenomena, which, for the time being, may seem extraordinary and inexplicable to the crippled or unaided senses. Nor are they so apt to be overwhelmed by mere novelty or rarity because the momentary wonder seems as inexplicable as the origin of all mental phenomena to the cultured thinker. The average form of spiritualism would appear to be a corrupt or degraded form of the poetry of Materialism, although it affects to despise that system of philosophy. It is far from my mind to treat with levity the ordinary crudities so commonly manifested at the many spiritualistic seances which I have had the opportunity of witnessing.

One grave objection to the value of the testimony of such seances is, that wherever any phenomena have been observed which appeared to be inexplicable, they



were always manifested under conditions where at least some of the complementary senses, if not all, were at a disadvantage. It has already been stated that the senses are particularly liable to all forms of illusions, at times, even where they are free and unconditioned. It has also been shown that the only difference between the waking concepts, dreams, subjective delusions, and suchlike is in the invariable strength, and unmistakable order, consistency, and harmony of the primary concepts, as compared with the feebler, inconsistent, shifting, kaleidoscopic phenomena of fancy, ghost delusion dream, and other illusions of the diseased brain. The only way to distinguish any form of illusion would be to dispel the conditions unfavorable to the manifestations of healthy concepts.

One significant circumstance which may enable strong healthy minds to free themselves from the degrading errors of spiritualism is to discern that the conditions favorable to illusion and fraud are ever the conditions under which typical spiritualistic phenomena are manifested. Lord Lindsay and others—by moonlight—fancied that they saw the law of gravitation opposed by some new force, in the devitation of Mr Home. But that men, in a sane state of mind, should accept the *idola offa* and that they had discovered a new force when all the senses were so absurdly handicapped (for ordinary purposes of observation even), and that they were trammelled by the disadvantage of best position for verification, shows, for the time being, they were not aware of the great liability to illusion under such conditions.

To have contemplated even the possibility of discovering a new force under such crippled conditions shows that their minds, like those of ordinary madmen, were for the time being constituted to favor illusionary conceptions.

It ought to be strongly impressed that there is no well marked line between the sane and the insane, and scarcely any where illusion is concerned, apart from its permanency.

There are many remarkable points of agreement between some of the concepts of spiritualists and those of the hopelessly insane.

1. In both the concepts are frequently

normal, in contradiction to common sense, and without any apparent purpose or reason. The intensity of the conviction, nevertheless, in both seems to be greater than the ordinary convictions of common sense.

2. They manifest themselves under conditions where the common organs of sense are partly or wholly crippled.

3. In both classes they are manifested frequently under physical excitement or strong emotion.

4. In both they are frequently manifested by people who have, or who appear to have, a well-known epileptic tendency, frequently resulting in bodily prostration.

5. The moral sense of many such intermittently affected epileptics—the trance medium—seems to be very low, and their testimony worthless.

It is a significant circumstance observed by Dr. Maudsley, and other experts, that in the incipient stages of epilepsy, the destruction of the moral sense seems to precede the more violent physical accompaniments of this dread calamity.

6. In both classes referred to extreme excitability is frequently exhibited; their imagination and originality remarkable, and often of a poetic order. But, unlike the normal stages of sanity, they are extremely irritated when the reality of their illusory concepts are called in question. It would seem as if all the creative and other powers of the mind were diverted from critical and other proper uses, and devoted to the creation of wonderful theories, whose sole object is to buttress or build up the loved illusion.

The explanation of spiritualism is not to be found in the typical phenomena, but in the thorough study of the deeply rooted causes, mental and physical, in men's natures, of which the phenomena which so impresses them are a fairly reliable index. Tell me a person's wonder, and I may fairly infer whether the intelligence of the person is of the order of a madman, a savage, a child, or a Newton.

Wonder is purely a relative state, and varies with the stage of intelligence. Higher intelligence is like a kingdom of a higher order of useful vigorous plants, whose advance into a wilderness absorbs and takes the place of a less useful and a more lowly order.

The mystery which caused the deep agitation of Newton's mind as influence which binds the Pleiades, gradually dawned upon his wondering soul, is a very different one from that which fascinates the gaze of the ignorant trick-worshipper.

To penetrate the interior of a world in motion; to trace as far as possible the orderly laws which determines its course, and to contemplate the mystery of the cause of its original impulses are matters which lie within the field of wonder of the higher intelligence. To be callous to the inner life of everything, to see a wonder only in novelty, rarity, or in the unusual exterior are sure indices of a lower stage of intelligence.

#### CONCLUSION.

The order and equilibrium of the mind are intimately connected with the vigour, fullness, and health of the organs of sense.

Many persons commit mental suicide for the sensual delight of a useless momentary wonder.

The insane, by disease, are forced to live always within a world of wonders such as those sought after, at times, by the ignorant.

I have prepared a classified "Psychometer Index" which to some may be useful in showing the treacherous nature of the apparent value of judgments based upon observations of the crippled senses. I have shown by this classified "Psychometer Index" that we may only hope for orderly concepts, free from illusion, within narrow limits. Beyond this limit orderly conception diminishes or lessens in value. It would seem that passion distorts or gains ascendancy over sane judgment in proportion to the degree of the diminishing power of the senses, until, approaching the zero of the understanding, the state coincides exactly with insanity.

The insane state consists of all kinds of unreasoning beliefs; but, unlike sane concepts, they are marked by a real pitiful intensity of conviction to which the sane mind can never hope, or ever wish for, within the logical order of the higher states of consciousness. Better be a dull, pulsating mass of protoplasm than to be adrift upon a stormy ocean of disordered concepts, when the rudder and helm of

the senses have been rendered nugatory, or have been for ever destroyed. Let us beware, therefore, of the intensity of a conviction which is, in this way, related.

Notwithstanding what has been stated in opposition to illusions of a fungoid character, I am far from being convinced that *all* illusions, as such, are harmful. I am inclined to think that a beneficial purpose is served by many of them, especially of such as are born of the extraordinary strength of love, affection, sympathy, and the higher poetic fancy. The mother, for example, sees favourable qualities in her child which no other eye regards, and, frequently, have no real existence. Who, therefore, would wholly banish the mist of the affections? I, for one, would not if I could. A large group of illusions might fairly be classed under this order. All illusion, or partial illusion, which for the moment may be necessary to our comfort and well-being, spiritually, and not liable to introduce more remotely great evil consequences, I would be sorry to see wholly dispelled. I do not regard or class such as "Fungoid Illusions." Illusions which are harmful are alone regarded as "fungoid" in my estimation.

We have seen that it may be possible to reach the zero of valuable concepts, and, indeed, of all consciousness, in two widely different directions. On the one hand, it may be gradually approached through varying stages of fictitious wonder, imagination, dream-illusion, insanity, and by the destruction of one after the other of those wonderful organs of sense which, though of feeble range, are yet, in the highest sense, God-given, Heaven-born.

On the other hand, by humble mien and fearless confidence, we may, through all the channels of widening sense, advance to still greater heights, wider horizons, which may be ordained that we should yet conquer. There are still almost infinite circles within the legitimate domain of natural science, but beyond the limits of our present knowledge and range of powers.

Yet, even now, from a thousand heights of sense, we can perceive that, however we may increase in *subjective* knowledge—*i.e.*, natural knowledge—the *objective* mystery which surrounds us, which we feel we can never penetrate, is but in-

creased by every advancing step in natural knowledge. We feel that though new chords should continue to be struck on "the harp of a thousand strings," the "Everlasting Arm" which is the cause of their harmonious vibrations can, itself, never be revealed to us save through that veil of the sensible in which "we live, move, and have our being."

Do not, therefore, foolishly tremble under the illusion that all mystery shall be dissipated, or that the veil may be pierced, if we but open wider our dim eyes, or stretch out a little further our feeble hands. Their limits—not determined by us—not written on tables of stone, and soon enough reached—are the truest and best guides. The created mysteries of distorted imagination and the crippled senses are but a poor "mess of pottage" as compared with our glorious birthright of *orderly* natural knowledge and feeling.

If still—like wilful children—we *will* have a deeper mystery, let us, with the fullest possible equipment, attempt to penetrate from every portal of sense the CAUSE of which they are themselves wondrous symbols. The effort to do so will convey an impression which *cannot* be effaced. Thereafter the appalled and humbled mind will gratefully shrink back within its own protecting luminous mist of the higher poetic ideal, and, with the chastened submission of a child—cry—

"It is enough." "Thy will be done."

Nor swords of angels could reveal what they conceal.

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PROPOSED PSYCHOMETER INDEX DESIGNED AS AN AID TO THE BETTER DETERMINATION OF THE COMPARATIVE VALUE OF MENTAL CONCEPTS.

Table specially prepared with the object of showing approximately the Relative Value of Observations and Related Conclusions or Judgments, as Determined by the Nature of the Testimony and other Conditions under which the Original and other Observations have been made :—

Key to Classification. Order of Value of Testimony.

Direct. Indirect.  
(1) (2) (3) (4)

(A) PHENOMENA OF THE WAKING STATE—

(A) Mind not diseased and little or not affected by the disorders arising out of passion, prejudice, or ignorance.

\* Common Phenomena :—

Condition <i>a</i>	...	1	2	3	4
" <i>b</i>	...	5	6	7	8
" <i>c</i>	...	9	10	11	12
" <i>d</i>	...	13	14	15	16
" <i>e</i>	...	17	18	19	20
" <i>f</i>	...	21	22	23	24
" <i>g</i>	...	25	—	—	—

\* \* Extraordinary Phenomena :—

Condition <i>a</i>	...	26	27	28	29
" <i>b</i>	...	30	31	32	33
" <i>c</i>	...	34	35	36	37
" <i>d</i>	...	38	39	40	41
" <i>e</i>	...	42	43	44	45
" <i>f</i>	...	46	47	48	49
" <i>g</i>	...	50	—	—	—

(B) Mind not diseased, but more or less subject to the disorders arising out of passion, prejudice, or ignorance.

\* Wonderful or Miraculous Phenomena, including the Ghost, Vision, or Illusion stage :—

Condition <i>a</i>	...	51	52	53	54
" <i>b</i>	...	55	56	57	58
" <i>c</i>	...	59	60	61	62
" <i>d</i>	...	63	64	65	66
" <i>e</i>	...	67	68	69	70
" <i>f</i>	...	71	72	73	74
" <i>g</i>	...	75	—	—	—

(c) Mind diseased, and subject, more or less, to all its disorders.

Condition :—

* Hallucination, milder form...	76	77	78	79
* Dementia	80	81	82	83

(B) PHENOMENA OF SLEEP—

(A) Peaceful or pleasurable visions	...	84	85	86	87
(B) Painful or horrible visions	...	88	89	90	91
(c) Profound slumber...	...	92	—	—	—



EXPLANATION OF TERMS USED IN  
CLASSIFIED TABLE.

Subdivisions of order of value of testimony:—

- (1) Indicates testimony directly appealing to senses, feeling, or consciousness. Memory of former experiences aiding the judgment.
- (2) Indicates testimony directly appealing to the senses, feeling, or consciousness. Memory of former experiences not an aid to judgment.
- (3) Indicates experiences more or less remote. Testimony dependant upon observer's memory mainly.
- (4) Indicates that testimony is wholly dependant upon the observation of others—not personal observation.

Conditions *a b c d e f g* qualifying the value of the subordinate stages of observation:

- a* Indicates stage of the scientific method. All sense organs available for verification, together with the advantages of health, perfect organisation, best position, special training, and full equipment of tested instrumental aids.
- b* Indicates the common sense stage. The same as *a* stage, but lacking the advantage of special training, best position, and the absence of tested instrumental aids.

(Crippled sense stages more or less liable to illusion.)

- c* Indicates the *b* stage, but lacking the co-operation of one of the least valuable of the complementary sense aids.
- d* Indicates the *b* stage, but lacking the co-operation of two of the least valuable of the complementary sense-aids.
- e* Indicates the *b* stage, but lacking the co-operation of three of the least valuable of the complementary sense-aids.
- f* Indicates the *b* stage, but lacking the co-operation of four of the least valuable of the complementary sense-aids.
- g* Indicates that all the sense organs are rendered nugatory so far as direct observation is concerned; memory of former experiences alone available to qualify the testimony of others upon whom the crippled mind and senses are now wholly dependant.

Column numbers under order of value of testimony:—

The numbers under each one of the four columns indicate, in the order of downward sequence, the relative qualitative (not quantitative) value of the particular stage of observation, or of the conclusion or judgment based thereupon.