

SCIENCE

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ADDRESS OF THE PRESIDENT BEFORE THE SOCIETY FOR PSYCHICAL RESEARCH.*

THE Presidency of the Society for Psychical Research resembles a mousetrap. Broad is the path and wide the way that leadeth thereinto. Flattering bait is spread before the entrance: The distinguished names of one's predecessors in the office; the absence of any active duties; England and America symbolically made one in that higher republic where no disputed frontiers or foreign offices exist; and all the rest of it. But when the moment comes to retrace one's steps and go back to private life, like Cincinnatus to his plough, then comes the sorrow, then the penalty for greatness. The careless presidential mouse finds the wires all pointing against him, and to get out there is no chance, unless he leave some portion of his fur. So in resigning my office to my worthier successor, I send this address to be read across the ocean as my ransom, not unaware, as I write it, that the few things I can say may well fall short of the dignity of the occasion and the needs of the cause for which our Society exists.

Were psychical research as well organized as the other sciences are, the plan of a presidential address would be mapped out in advance. It could be nothing but a report

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of progress, an account of such new observations and new conceptions as the interim might have brought forth. But our active workers are so few compared with those engaged in more familiar departments of natural learning, and the phenomena we study so fortuitous and occasional, that two years must, as a rule, prove too short an interval for regular accounts of stock to be taken. Looking back, however, on our whole dozen years or more of existence, one can appreciate what solid progress we have made. Disappointing as our career has doubtless been to those of our early members who expected definite corroboration or the final *coup de grâce* to be given in a few short months to such baffling questions as that of physical mediumship, to soberer and less enthusiastic minds the long array of our volumes of *Proceedings* must suggest a feeling of anything but discouragement. For here, for the first time in the history of these perplexing subjects, we find a large collection of records, to each of which the editors and reporters have striven to attach its own precise coefficient of evidential value, great or small, by getting at every item of first-hand evidence that could be attained, and by systematically pointing out the gaps. Only those who have tried to reach conclusions of their own by consulting the previous literature of the occult, as vague and useless, for the most part, as it is voluminous, can fully appreciate the immense importance of the new method which we have introduced. Little by little, through consistently following this plan, our *Proceedings* are extorting respect from the most unwilling lookers-on; and I should like emphatically to express my hope that the impartiality and completeness of record which has been their distinguishing character in the past will be held to even more rigorously in the future. It is not as a vehicle of conclusions of our own, but as a

collection of documents that may hereafter be resorted to for testing the conclusions and hypotheses of *anybody*, that they will be permanently important. Candor must be their very essence, and all the hesitations and contradictions that the phenomena involve must appear unmitigatedly in their pages. Collections of this sort are usually best appreciated by the rising generation. The young anthropologists and psychologists who will soon have full occupancy of the stage will feel, as we have felt, how great a scientific scandal it has been to leave a great mass of human experience to take its chances between vague tradition and credulity on the one hand and dogmatic denial at long range on the other, with no body of persons extant who are willing and competent to study the matter with both patience and rigor. There have been isolated experts, it is true, before now. But our Society has for the first time made their abilities mutually helpful.

If I were asked to give some sort of dramatic unity to our history, I should say first that we started with high hopes that the hypnotic field would yield an important harvest, and that these hopes have subsided with the general subsidence of what may be called the hypnotic wave. Secondly, I should say that experimental thought-transference has yielded a less abundant return than that which in the first year or two seemed not unlikely to come in. Professor Richet's supposition that if the unexplained thing called thought-transference be ever real, its causes must, to some degree, work in everybody at all times (so that in any long series of card-guessings, for example, there ought always to be some excess of right answers above the chance number) is, I am inclined to think, not very well substantiated. Thought-transference may involve a critical point, as the physicists call it, which is passed only when certain psychic conditions are realized, and otherwise

not reached at all—just as a big conflagration will break out at a certain temperature, below which no conflagration whatever, whether big or little, can occur. We have published records of experiments on at least thirty subjects, roughly speaking, and many of these were strikingly successful. But their types are heterogeneous; in some cases the conditions were not faultless; in others the observations were not prolonged; and generally speaking, we must all share in a regret that the evidence, since it has reached the point it *has* reached, should not grow more voluminous still. For whilst it cannot be ignored by the candid mind, it yet, as it now stands, may fail to convince coercively the skeptic. Any day, of course, may bring in fresh experiments in successful picture guessing. But meanwhile, and lacking that, we can only point out that our present data are strengthened in the flank, so to speak, by all observations that tend to corroborate the possibility of other kindred phenomena, such as telepathic impression, clairvoyance, or what is called ‘test-mediumship.’ The wider genus will naturally cover the narrower species with its credit.

Now, as regards the work of the Society in these latter regards, we can point to solid progress. First of all we have that masterpiece of intelligent and thorough scientific work—I use my words advisedly—the Sidgwick Report on the Census of Hallucinations. Against the conclusion of this report, that death apparitions are 440 times more numerous than they should be according to chance, the only rational answer that I can see is that the data are still too few, that the net was not cast wide enough, and that we need, to get fair averages, far more than 17,000 answers to the Census question. This may, of course, be true, though it seem exceedingly unlikely, and in our own 17,000 answers veridical cases may have heaped themselves unduly.

So neither by this report then, taken alone, is it absolutely necessary that the skeptic be definitely convinced. But then we have, to strengthen *its* flank in turn, the carefully studied cases of ‘Miss X.’ and Mrs. Piper, two persons of the constitution now coming to be nicknamed ‘psychic’ (a bad term, but a handy one), each person of a different psychic type, and each presenting phenomena so chronic and abundant that, to explain away the supernormal knowledge displayed, the disbeliever will certainly rather call the subjects deceivers, and their believers dupes, than resort to the theory of chance-coincidence. The same remark holds true of the extraordinary case of Stainton Moses, concerning which Mr. Myers has recently given us such interesting documents. In all these cases (as Mr. Lang has well said of the latter one) we are, it seems to me, fairly forced to choose between a physical and a moral miracle. The physical miracle is that knowledge may come to a person otherwise than by the usual use of eyes and ears. The moral miracle is a kind of deceit so perverse and successful as to find no parallel in usual experience. But the limits of possible perversity and success in deceit are hard to draw; so here again the skeptic may fall back on his general *non possumus*, and without pretending to explain the facts in detail, say the presumption from the ordinary course of Nature holds good against their supernormal interpretation. But the oftener one is forced to reject an alleged sort of fact, by the method of falling back on the mere presumption that it can’t be true because, so far as we know Nature, Nature runs altogether the other way, the weaker does the presumption itself get to be; and one might in course of time use up one’s presumptive privileges in this way, even though one started (as our anti-telepathists do) with as good a case as the great induction of psychology that all our knowl-

edge comes by the use of our eyes and ears and other senses. And we must remember also that this undermining of the strength of a presumption by reiterated report of facts to the contrary does not logically require that the facts in question should all be well proved. A lot of rumors in the air against a business man's credit, though they might all be vague, and no one of them amount to proof that he is unsound, would certainly weaken the *presumption* of his soundness. And all the more would they have this effect if they formed what our lamented Gurney called a faggot and not a chain, that is, if they were independent of each other, and came from different quarters. Now our evidence for telepathy, weak and strong, taken just as it comes, forms a faggot and not a chain. No one item cites the content of another item as part of its own proof. But, taken together, the items have a certain general consistency; there is a method in their madness, so to speak. So each of them adds presumptive value to the lot; and cumulatively, as no candid mind can fail to see, they subtract presumptive force from the orthodox belief that there can be nothing in any one's intellect that has not come in through ordinary experiences of sense.

But it is a miserable thing for a question of truth to be confined to mere presumption and counter-presumption, with no decisive thunderbolt of fact to clear the baffling darkness. And sooth to say, in talking so much of the merely presumption-weakening value of our records, I have been wilfully taking the point of view of the so-called 'rigorously scientific' disbeliever, and making an *ad hominem* plea. My own point of view is different. For me the thunderbolt *has* fallen, and the orthodox belief has not merely had its presumption weakened, but the truth itself of the belief is decisively overthrown. If you will let me use the language of the professional logic shop, a

universal proposition can be made untrue by a particular instance. If you wish to upset the law that all crows are black, you mustn't seek to show that no crows are; it is enough if you prove one single crow to be white. My own white crow is Mrs. Piper. In the trances of this medium, I cannot resist the conviction that knowledge appears which she has never gained by the ordinary waking use of her eyes and ears and wits. What the source of this knowledge may be I know not, and have not the glimmer of an explanatory suggestion to make; but from admitting the fact of such knowledge, I can see no escape. So when I turn to the rest of our evidence, ghosts and all, I cannot carry with me the irreversibly negative bias of the rigorously scientific mind, with its presumption as to what the true order of nature ought to be. I feel as if, though the evidence be flimsy in spots, it may nevertheless collectively carry heavy weight. The rigorously scientific mind may, in truth, easily overreach itself. Science means, first of all, a certain dispassionate method. To suppose that it means a certain set of results that one should pin one's faith upon and hug forever is sadly to mistake its genius, and degrades the scientific body to the status of a sect.

But I am devoting too many words to scientific logic, and too few to my review of our career. In the question of physical mediumship, we have left matters as baffling as we found them, neither more nor less. For if, on the one hand, we have brought out new documents concerning the physical miracles of Stainton Moses, on the other hand we have, by the Hodgson-Davey experiments, and the Paladino episode, very largely increased the probability that testimony based on certain sorts of observation may be quite valueless as proof. Eusapia Paladino has been to us both a warning and an encouragement: an encouragement to pursue unwaveringly the rigorous method

in such matters from which our *Proceedings* have never departed, and a warning against drawing any prompt inference whatever from things that happen in the dark. The conclusions to which some of us had been hastily led on 'the Island,' melted away when, in Cambridge, the opportunity for longer and more cunning observation was afforded. Some day, it is to be hoped, our *Proceedings* may be enabled to publish a complete study of this woman's life. Whatever the upshot of such a study, few documents could be more instructive in all ways for psychical research.

It is pleasant to turn from phenomena of dark-sitting and rathole type (with their tragi-comic suggestion that the whole order of nature might possibly be overturned in one's own head, by the way in which one imagined oneself, on a certain occasion, to be holding a tricky peasant woman's feet) to the 'calm air of delightful studies.' And on the credit side of our Society's account a heavy entry must next be made in favor of that immense and patient collecting of miscellaneous first-hand documents that alone has enabled Mr. Myers to develop his ideas about automatism and the subliminal self. In Mr. Myers' papers on these subjects we see, for the first time in the history of men's dealings with occult matters, the whole range of them brought together, illustrated copiously with unpublished contemporary data, and treated in a thoroughly scientific way. All constructions in this field must be provisional, and it is as something provisional that Mr. Myers offers us his attempt to put order into the tangle. But, thanks to his genius, we begin to see for the first time what a vast interlocked and graded system these phenomena, from the rudest motor automatisms to the most startling sensory apparition, form. Mr. Myers' methodical treatment of them by classes and series is the first great step towards overcoming the distaste of orthodox science to look at them at all.

But our *Proceedings* contain still other veins of ore for future working. Ghosts, for example, and disturbances in haunted houses. These, whatever else may be said of them at present, are not without bearing on the common scientific presumption of which I have already perhaps said too much. Of course, one is impressed by such narratives after the mode in which one's impressibility is fashioned. I am not ashamed to confess that in my own case, although my *judgment* remains deliberately suspended, my *feeling* towards the way in which the phenomena of physical mediumship should be approached has received from ghost and disturbance stories a distinctly charitable lurch. Science may keep saying: "such things are simply impossible;" yet, so long as the stories multiply in different lands, and so few are positively explained away, it is bad method to ignore them. They should at least accrete for future use. As I glance back at my reading of the past few years (reading accidental so far as these stories go, since I have never followed up the subject) ten cases immediately rise to my mind. The Phelps case at Andover, recorded by one of the family, in *McClure's Magazine* for this month; a case in China, in Nevius's *Demon Possession*, published last year; the case in John Wesley's life; the 'Amherst Mystery' in Nova Scotia (New York, 1888); the case in Mr. Willis's house at Fitchburg, recorded in *The Atlantic Monthly* for August, 1868 (XXII., 129); the Telfair-Mackie case, in Sharpe's *History of Witchcraft* in Scotland; the Morse case, in Upham's *Salem Witchcraft*; the case recounted in the introduction of W. v. Humboldt's *Brief an eine Freundin*; a case in the *Annales des Sciences Psychiques* for last year (p. 86); the case of the carpenter's shop at Swanland, near Hull, in our *Proceedings*, Vol. VII., Part XX., pp. 383-394. In all of these, if memory doesn't deceive me, material objects are

said to have been witnessed by many persons moving through the air in broad daylight. Often the objects were multitudinous; in some cases they were stones showered through windows and down-chimney. More than once it was noted that they fell gently and touched the ground without shock. Apart from the exceptionality of the reputed occurrences, their mutual resemblances suggest a natural type, and I confess that until these records, or others like them, are positively explained away, I cannot feel (in spite of such vast amounts of detected fraud) as if the case against physical mediumship itself as a freak of nature were definitively closed. But I admit that one man's psychological reaction cannot here be like unto another's; and one great duty of our Society will be to pounce upon any future case of this 'disturbance' type, catch it while red-handed and nail it fast, whatever its quality be.

We must accustom ourselves more and more to playing the *rôle* of a meteorological bureau, be satisfied for many a year to go without definitive conclusions, confident that if we only keep alive and heap up data, the natural types of them (if there are any) will surely crystallize out; whilst old material that is baffling will get settled as we proceed, through its analogy with new material that will come with the baffling character removed.

But I must not weary your patience with the length of my discourse. One general reflection, however, I cannot help asking you to let me indulge in before I close. It is relative to the influence of psychical research upon our attitude towards human history. Although, as I said before, Science taken in its essence should stand only for a method, and not for any special beliefs, yet, as habitually taken by its votaries, Science has come to be identified with a certain fixed general belief, the belief that the deeper order of Nature is mechanical ex-

clusively, and that non-mechanical categories are irrational ways of conceiving and explaining even such a thing as human life. Now this mechanical rationalism, as one may call it, makes, if it becomes one's only way of thinking, a violent breach with the ways of thinking that have, until our own time, played the greatest part in human history. Religious thinking, ethical thinking, poetical thinking, teleological, emotional, sentimental thinking, what one might call the personal view of life to distinguish it from the impersonal and mechanical, and the romantic view of life to distinguish it from the rationalistic view, have been, and even still are, outside of well-drilled scientific circles, the dominant forms of thought. But for mechanical rationalism, personality is an insubstantial illusion; the chronic belief of mankind, that events may happen for the sake of their personal significance, is an abomination; and the notions of our grandfathers about oracles and omens, divinations and apparitions, miraculous changes of heart and wonders worked by inspired persons, answers to prayer and providential leadings, are a fabric absolutely baseless, a mass of sheer *untruth*. Now, of course, we must all admit that the excesses to which the romantic and personal view of Nature may lead, if wholly unchecked by impersonal rationalism, are direful. Central African Mumbo-jumboism in fact is one of unchecked romanticism's fruits. One ought accordingly to sympathize with that abhorrence of romanticism as a sufficient world theory; one ought to understand that lively intolerance of the least grain of romanticism in the views of life of other people, which are such characteristic marks of those who follow the scientific professions to-day. Our debt to Science is literally boundless, and our gratitude for what is positive in her teachings must be correspondingly immense. But our own *Proceedings* and *Journals* have,

it seems to me, conclusively proved one thing to the candid reader, and that is that the verdict of pure insanity, gratuitous of preference for error, of superstition without an excuse, which the scientists of our day are led by their intellectual training to pronounce upon the entire thought of the past, is a most shallow verdict. The personal and romantic view of life has other roots besides wanton exuberance of imagination and perversity of heart. It is perennially fed by *facts of experience*, whatever the ulterior interpretation of those facts may prove to be; and at no time in human history would it have been less easy than now, at most times it would have been much more easy, for advocates with a little industry to collect in its favor an array of contemporary documents as good as those which our publications present. These documents all relate to real experiences of persons. These experiences have three characters in common: They are capricious, discontinuous and not easily controlled; they require peculiar persons for their production; their significance seems to be wholly for personal life. Those who preferentially attend to them, and still more those who are individually subject to them, not only easily *may* find, but are logically bound to find, in them valid arguments for their romantic and personal conception of the world's course. Through my slight participation in the investigations of the Society for Physical Research, I have become acquainted with numbers of persons of this sort, for whom the very word Science has become a name of reproach, for reasons that I now both understand and respect. It is the intolerance of Science for such phenomena as we are studying, her peremptory denial either of their existence, or of their significance except as proofs of man's absolute innate folly, that has set Science so apart from the common sympathies of the race. I confess that it is on this, its

humanizing mission, that our Society's best claim to the gratitude of our generation seems to me to depend. We have restored continuity to history. We have shown some reasonable basis for the most superstitious aberrations of the foretime. We have bridged the chasm, healed the hideous rift that Science, taken in a certain narrow way, has shot into the human world.

I will even go one step further. When from our present advanced standpoint we look back upon the past stages of human thought, whether it be scientific thought or theological thought, we are amazed that a Universe which appears to us of so vast and mysterious a complication should ever have seemed to any one so little and plain a thing. Whether it be Descartes' world or Newton's; whether it be that of the materialists of the last century or that of the Bridgewater treatises of our own; it always looks the same to us—incredibly perspectiveless and short. Even Lyell's, Faraday's, Mill's and Darwin's consciousness of their respective subjects are already beginning to put on an infantile and innocent look. Is it then likely that the Science of our own day will escape the common doom, that the minds of its votaries will never look old-fashioned to the grandchildren of the latter? It would be folly to suppose so. Yet, if we are to judge by the analogy of the past, when our Science once becomes old-fashioned, it will be more for its omissions of fact, for its ignorance of whole ranges and orders of complexity in the phenomena to be explained, than for any fatal lack in its spirit and principles. The spirit and principles of Science are mere affairs of method; there is nothing in them that need hinder Science from dealing successfully with a world in which personal forces are the starting-point of new effects. The only form of thing that we directly encounter, the only experience that we concretely have, is our own personal life.

The only complete category of our thinking, our professors of philosophy tell us, is the category of personality, every other category being one of the abstract elements of that. And this systematic denial, on Science's part, of personality as a condition of events, this rigorous belief that in its own essential and innermost nature our world is a strictly impersonal world, may, conceivably, as the whirligig of time goes round, prove to be the very defect that our descendants will be most surprised at in our own boasted Science, the omission that, to their eyes, will most tend to make it look perspectiveless and short.

But these things lie upon the knees of the gods. I must leave them there, and close now this discourse, which I regret that I could not make more short. If it has made you feel that (however it turn out with modern Science) our own Society, at any rate, is not 'perspectiveless,' it will have amply served its purpose; and the next President's address may have more definite conquests to record.

WILLIAM JAMES.

THE FORM OF THE HEAD AS INFLUENCED BY GROWTH.

THE change in the shape of the head which accompanies growth has been but very slightly investigated either in this country or abroad. The meagreness of results may be indicated by the fact that Topinard's *Éléments d' Anthropologie* contains only a note upon the subject, with no data.* A recent investigation upon the students of the Massachusetts Institute of Technology may be of interest as bearing upon this question. The measurements covered 485 students, grouped as follows: 215 in the first-year class; 69 in the second; 66 in the third, and 136 in the graduating class.

From the comparison of the measurements of the length and breadth of the heads

of these students so divided into classes, it appears that between the period of entrance and of graduation, that is to say from the ages of 18-19 to 23-24 years, the development of the head is almost entirely in respect of its length. The average breadth of the head remaining constant at or near 152 mm., the length varies from an average of 195.13 mm. in the first-year to 196.35 in the fourth-year class. The intermediate classes occupy a position midway between the two, indicating that this is not a result of chance. If this tendency be a general one, it means that the cephalic index in our American population of this class tends to decrease at this particular time of life. The cephalic index, for example, of the first-year students averages 78.6 and that of the fourth-year averages 77.2, the second and third years being 77.7. This is rendered specially significant by the fact that Drs. West and Porter have shown a slight decrease of cephalic index in American school children between the ages of 5 and 18; at Worcester, for example, the average index falling between 79 and 78.* If we assume that in both cases we are dealing with similar populations the hypothesis of a progressive decrease of cephalic index, with growth, of our American people would seem to be well founded.

In Europe, Zuckerhandl, comparing the index of 156 children and 197 adults of the same (Austrian) race, found that the children were narrower-headed than adults as a rule; and Holl confirms this result.† Dr. Meis declares that from his experience the children among the Germans are more dolicho-cephalic than the adults.‡ Schaafhausen finds that in many cases the length

* *Archiv für Anthropologie*, XXII., pp. 19 and 34; and Report of Anthropological Congress at Chicago, p. 57.

† *Mitt. der Anth. Gesell. in Wien*. XIV., 1884., p. 127; and *Ibid* XVIII., p. 4.

‡ *Ibid*, XX., 1890, p. 39 seq.

* Page 374.