

correspond? Are individual "spirits" constituted there? How numerous, and of how many hierarchic orders may these then be? How permanent? How transient? And how confluent with one another may they become?

What again, are the relations between the cosmic consciousness and matter? Are there subtler forms of matter which upon occasion may enter into functional connection with the individuations in the psychic sea, and then, and then only, show themselves?--So that our ordinary human experience, on its material as well as on its mental side, would appear to be only an extract from the larger psycho-physical world?

Vast, indeed, and difficult is the inquirer's prospect here, and the most significant data for his purpose will probably be just these dingy little mediumistic facts which the Huxleyan minds of our time find so unworthy of their attention. But when was not the science of the future stirred to its conquering activities by the little rebellious exceptions to the science of the present? Hardly, as yet, has the surface of the facts called "psychic" begun to be scratched for scientific purposes. It is through following these facts, I am persuaded, that the greatest scientific conquests of the coming generation will be achieved. *Kühn ist das Mühen, herrlich der Lohn!*

[1] Published under the title "Confidences of a Psychological Researcher" in the *American Magazine*, October, 1909. For a more complete and less popular statement of some theories suggested in this article see the last pages of a "Report on Mrs. Piper's Hodgson-Control" in *Proceedings of the [Eng.] Society for Psychical Research*, 1909, 470; also printed in *Proc. of Am. Soc. for Psychical Research* for the same year.

[2] T. H. Huxley, "Life and Letters," I, 240.

IX

ON SOME MENTAL EFFECTS OF THE EARTHQUAKE[1]

When I departed from Harvard for Stanford University last December, almost the last good-by I got was that of my old Californian friend B: "I hope they'll give you a touch of earthquake while you 're there, so that you may also become acquainted with that Californian institution."

Accordingly, when, lying awake at about half past five on the morning of April 18 in my little "flat" on the campus of Stanford, I felt the bed begin to wobble, my first consciousness was one of gleeful recognition of the nature of the movement. "By Jove," I said to myself, "here's B's old [Transcriber's note: 'B's old?'] earthquake, after all!" And then, as it went *crescendo*. "And a jolly good one it is, too!" I said.

Sitting up involuntarily, and taking a kneeling position, I was thrown down on my face as it went *fortior* shaking the room exactly as a terrier shakes a rat. Then everything that was on anything else slid off to the floor, over went bureau and chiffonier with a crash, as the *fortissimo* was reached; plaster cracked, an awful roaring noise seemed to fill the outer air, and in an instant all was still again, save the soft babble of human voices from far and near that soon began to make itself heard, as the inhabitants in costumes *negligés* in various degrees sought the greater safety of the street and yielded to the passionate desire for sympathetic communication.

The thing was over, as I understand the Lick Observatory to have declared, in forty-eight seconds. To me it felt as if about that length of time, although I have heard others say that it seemed to them longer. In my case, sensation and emotion were so strong that little thought, and no reflection or volition, were possible in the short time consumed by the phenomenon.

The emotion consisted wholly of glee and admiration; glee at the vividness which such an abstract idea or verbal term as "earthquake" could put on when translated into sensible reality and verified concretely; and admiration at the way in which the frail little wooden house could hold itself together in spite of such a

shaking. I felt no trace whatever of fear; it was pure delight and welcome.

"Go it," I almost cried aloud, "and go it *stronger!*"

I ran into my wife's room, and found that she, although awakened from sound sleep, had felt no fear, either. Of all the persons whom I later interrogated, very few had felt any fear while the shaking lasted, although many had had a "turn," as they realized their narrow escapes from bookcases or bricks from chimney-breasts falling on their beds and pillows an instant after they had left them.

As soon as I could think, I discerned retrospectively certain peculiar ways in which my consciousness had taken in the phenomenon. These ways were quite spontaneous, and, so to speak, inevitable and irresistible.

First, I personified the earthquake as a permanent individual entity. It was *the* earthquake of my friend B's augury, which had been lying low and holding itself back during all the intervening months, in order, on that lustrous April morning, to invade my room, and energize the more intensely and triumphantly. It came, moreover, directly to *me*. It stole in behind my back, and once inside the room, had me all to itself, and could manifest itself convincingly. Animus and intent were never more present in any human action, nor did any human activity ever more definitely point back to a living agent as its source and origin.

All whom I consulted on the point agreed as to this feature in their experience. "It expressed intention," "It was vicious," "It was bent on destruction," "It wanted to show its power," or what not. To me, it wanted simply to manifest the full meaning of its name. But what was this "It"? To some, apparently, a vague demonic power; to me an individualized being, B's earthquake, namely.

One informant interpreted it as the end of the world and the beginning of the final judgment. This was a lady in a San Francisco hotel, who did not think of its being an earthquake till after she had got into the street and some one had explained it to her. She told me that the theological interpretation had kept fear from her mind, and made her take the shaking calmly. For "science," when the tensions in the earth's crust reach the breaking-point, and strata fall into an altered equilibrium, earthquake is simply the collective *name* of all the cracks and shakings and disturbances that happen. They *are* the earthquake. But for me *the* earthquake was the *cause* of the disturbances, and the perception of it as a living agent was irresistible. It had an overpowering dramatic convincingness.

I realize now better than ever how inevitable were men's earlier mythologic versions of such catastrophes, and how artificial and against the grain of our spontaneous perceiving are the later habits into which science educates us. It was simply impossible for untutored men to take earthquakes into their minds as anything but supernatural warnings or retributions.

A good instance of the way in which the tremendousness of a catastrophe may banish fear was given me by a Stanford student. He was in the fourth story of Encina Hall, an immense stone dormitory building. Awakened from sleep, he recognized what the disturbance was, and sprang from the bed, but was thrown off his feet in a moment, while his books and furniture fell round him. Then with an awful, sinister, grinding roar, everything gave way, and with chimneys, floor-beams, walls and all, he descended through the three lower stories of the building into the basement. "This is my end, this is my death," he felt; but all the while no trace of fear. The experience was too overwhelming for anything but passive surrender to it. (Certain heavy chimneys had fallen in, carrying the whole centre of the building with them.)

Arrived at the bottom, he found himself with rafters and *débris* round him, but not pinned in or crushed. He saw daylight, and crept toward it through the obstacles. Then, realizing that he was in his nightgown, and feeling no pain anywhere, his first thought was to get back to his room and find some more presentable clothing. The stairways at Encina Hall are at the ends of the building. He made his way to one of them, and went up the four flights, only to find his room no longer extant. Then he noticed pain in his feet, which had

been injured, and came down the stairs with difficulty. When he talked with me ten days later he had been in hospital a week, was very thin and pale, and went on crutches, and was dressed in borrowed clothing.

So much for Stanford, where all our experiences seem to have been very similar. Nearly all our chimneys went down, some of them disintegrating from top to bottom; parlor floors were covered with bricks; plaster strewn the floors; furniture was everywhere upset and dislocated; but the wooden dwellings sprang back to their original position, and in house after house not a window stuck or a door scraped at top or bottom. Wood architecture was triumphant! Everybody was excited, but the excitement at first, at any rate, seemed to be almost joyous. Here at last was a *real* earthquake after so many years of harmless wobble! Above all, there was an irresistible desire to talk about it, and exchange experiences.

Most people slept outdoors for several subsequent nights, partly to be safer in case of recurrence, but also to work off their emotion, and get the full unusualness out of the experience. The vocal babble of early-waking girls and boys from the gardens of the campus, mingling with the birds' songs and the exquisite weather, was for three or four days delightful sunrise phenomenon.

Now turn to San Francisco, thirty-five miles distant, from which an automobile ere long brought us the dire news of a city in ruins, with fires beginning at various points, and the water-supply interrupted. I was fortunate enough to board the only train of cars--a very small one--that got up to the city; fortunate enough also to escape in the evening by the only train that left it. This gave me and my valiant feminine escort some four hours of observation. My business is with "subjective" phenomena exclusively; so I will say nothing of the material ruin that greeted us on every hand--the daily papers and the weekly journals have done full justice to that topic. By midday, when we reached the city, the pall of smoke was vast and the dynamite detonations had begun, but the troops, the police and the firemen seemed to have established order, dangerous neighborhoods were roped off everywhere and picketed, saloons closed, vehicles impressed, and every one at work who *could* work.

It was indeed a strange sight to see an entire population in the streets, busy as ants in an uncovered ant-hill scurrying to save their eggs and larvae. Every horse, and everything on wheels in the city, from hucksters' wagons to automobiles, was being loaded with what effects could be scraped together from houses which the advancing flames were threatening. The sidewalks were covered with well-dressed men and women, carrying baskets, bundles, valises, or dragging trunks to spots of greater temporary safety, soon to be dragged farther, as the fire kept spreading!

In the safer quarters, every doorstep was covered with the dwelling's tenants, sitting surrounded with their more indispensable chattels, and ready to flee at a minute's notice. I think every one must have fasted on that day, for I saw no one eating. There was no appearance of general dismay, and little of chatter or of inco-ordinated excitement.

Every one seemed doggedly bent on achieving the job which he had set himself to perform; and the faces, although somewhat tense and set and grave, were inexpressive of emotion. I noticed only three persons overcome, two Italian women, very poor, embracing an aged fellow countrywoman, and all weeping. Physical fatigue and seriousness were the only inner states that one could read on countenances.

With lights forbidden in the houses, and the streets lighted only by the conflagration, it was apprehended that the criminals of San Francisco would hold high carnival on the ensuing night. But whether they feared the disciplinary methods of the United States troops, who were visible everywhere, or whether they were themselves solemnized by the immensity of the disaster, they lay low and did not "manifest," either then or subsequently.

The only very discreditable thing to human nature that occurred was later, when hundreds of lazy "bummers" found that they could keep camping in the parks, and make alimentary storage-batteries of their stomachs,

even in some cases getting enough of the free rations in their huts or tents to last them well into the summer. This charm of pauperized vagabondage seems all along to have been Satan's most serious bait to human nature. There was theft from the outset, but confined, I believe, to petty pilfering.

Cash in hand was the only money, and millionaires and their families were no better off in this respect than any one. Whoever got a vehicle could have the use of it; but the richest often went without, and spent the first two nights on rugs on the bare ground, with nothing but what their own arms had rescued. Fortunately, those nights were dry and comparatively warm, and Californians are accustomed to camping conditions in the summer, so suffering from exposure was less great than it would have been elsewhere. By the fourth night, which was rainy, tents and huts had brought most campers under cover.

I went through the city again eight days later. The fire was out, and about a quarter of the area stood unconsumed. Intact skyscrapers dominated the smoking level majestically and superbly--they and a few walls that had survived the overthrow. Thus has the courage of our architects and builders received triumphant vindication!

The inert elements of the population had mostly got away, and those that remained seemed what Mr. H. G. Wells calls "efficients." Sheds were already going up as temporary starting-points of business. Every one looked cheerful, in spite of the awful discontinuity of past and future, with every familiar association with material things dissevered; and the discipline and order were practically perfect.

As these notes of mine must be short, I had better turn to my more generalized reflections.

Two things in retrospect strike me especially, and are the most emphatic of all my impressions. Both are reassuring as to human nature.

The first of these was the rapidity of the improvisation of order out of chaos. It is clear that just as in every thousand human beings there will be statistically so many artists, so many athletes, so many thinkers, and so many potentially good soldiers, so there will be so many potential organizers in times of emergency. In point of fact, not only in the great city, but in the outlying towns, these natural ordermakers, whether amateurs or officials, came to the front immediately. There seemed to be no possibility which there was not some one there to think of, or which within twenty-four hours was not in some way provided for.

A good illustration is this: Mr. Keith is the great landscape-painter of the Pacific slope, and his pictures, which are many, are artistically and pecuniarily precious. Two citizens, lovers of his work, early in the day diverted their attention from all other interests, their own private ones included, and made it their duty to visit every place which they knew to contain a Keith painting. They cut them from their frames, rolled them up, and in this way got all the more important ones into a place of safety.

When they then sought Mr. Keith, to convey the joyous news to him, they found him still in his studio, which was remote from the fire, beginning a new painting. Having given up his previous work for lost, he had resolved to lose no time in making what amends he could for the disaster.

The completeness of organization at Palo Alto, a town of ten thousand inhabitants close to Stanford University, was almost comical. People feared exodus on a large scale of the rowdy elements of San Francisco. In point of fact, very few refugees came to Palo Alto. But within twenty-four hours, rations, clothing, hospital, quarantine, disinfection, washing, police, military, quarters in camp and in houses, printed information, employment, all were provided for under the care of so many volunteer committees.

Much of this readiness was American, much of it Californian; but I believe that every country in a similar crisis would have displayed it in a way to astonish the spectators. Like soldiering, it lies always latent in human nature.

The second thing that struck me was the universal equanimity. We soon got letters from the East, ringing with anxiety and pathos; but I now know fully what I have always believed, that the pathetic way of feeling great disasters belongs rather to the point of view of people at a distance than to the immediate victims. I heard not a single really pathetic or sentimental word in California expressed by any one.

The terms "awful," "dreadful" fell often enough from people's lips, but always with a sort of abstract meaning, and with a face that seemed to admire the vastness of the catastrophe as much as it bewailed its cuttingness. When talk was not directly practical, I might almost say that it expressed (at any rate in the nine days I was there) a tendency more toward nervous excitement than toward grief. The hearts concealed private bitterness enough, no doubt, but the tongues disdained to dwell on the misfortunes of self, when almost everybody one spoke to had suffered equally.

Surely the cutting edge of all our usual misfortunes comes from their character of loneliness. We lose our health, our wife or children die, our house burns down, or our money is made way with, and the world goes on rejoicing, leaving us on one side and counting us out from all its business. In California every one, to some degree, was suffering, and one's private miseries were merged in the vast general sum of privation and in the all-absorbing practical problem of general recuperation. The cheerfulness, or, at any rate, the steadfastness of tone, was universal. Not a single whine or plaintive word did I hear from the hundred losers whom I spoke to. Instead of that there was a temper of helpfulness beyond the counting.

It is easy to glorify this as something characteristically American, or especially Californian. Californian education has, of course, made the thought of all possible recuperations easy. In an exhausted country, with no marginal resources, the outlook on the future would be much darker. But I like to think that what I write of is a normal and universal trait of human nature. In our drawing-rooms and offices we wonder how people ever do go through battles, sieges and shipwrecks. We quiver and sicken in imagination, and think those heroes superhuman. Physical pain whether suffered alone or in company, is always more or less unnerving and intolerable. But mental pathos and anguish, I fancy, are usually effects of distance. At the place of action, where all are concerned together, healthy animal insensibility and heartiness take their place. At San Francisco the need will continue to be awful, and there will doubtless be a crop of nervous wrecks before the weeks and months are over, but meanwhile the commonest men, simply because they *are* men, will go on, singly and collectively, showing this admirable fortitude of temper.

[1] At the time of the San Francisco earthquake the author was at Leland Stanford University nearby. He succeeded in getting into San Francisco on the morning of the earthquake, and spent the remainder of the day in the city. These observations appeared in the *Youth's Companion* for June 7, 1906.

X

THE ENERGIES OF MEN[1]

Everyone knows what it is to start a piece of work, either intellectual or muscular, feeling stale--or *oold*, as an Adirondack guide once put it to me. And everybody knows what it is to "warm up" to his job. The process of warming up gets particularly striking in the phenomenon known as "second wind." On usual occasions we make a practice of stopping an occupation as soon as we meet the first effective layer (so to call it) of fatigue. We have then walked, played, or worked "enough," so we desist. That amount of fatigue is an efficacious obstruction on this side of which our usual life is cast. But if an unusual necessity forces us to press onward a surprising thing occurs. The fatigue gets worse up to a certain critical point, when gradually or suddenly it passes away, and we are fresher than before. We have evidently tapped a level of new energy, masked until then by the fatigue-obstacle usually obeyed. There may be layer after layer of this experience. A third and a fourth "wind" may supervene. Mental activity shows the phenomenon as well as physical, and in exceptional cases we may find, beyond the very extremity of fatigue-distress, amounts of ease and power that we never dreamed ourselves to own,--sources of strength habitually not taxed at all, because habitually we never push