

than that of the past of the relation of thought and feeling to physical processes; and it may be that the qualities of Mind will be studied through the organism as we now study the character of Force through the affections of ordinary matter. We believe that every thought and every feeling has its definite mechanical correlative in the nervous system, that it is accompanied by a certain separation and remarshaling of the atoms of the brain.

"This latter process is purely physical; and were the faculties we now possess sufficiently strengthened, without the creation of any new faculty, it would, doubtless, be within the range of our augmented powers to infer from the molecular state of the brain the character of the thought acting upon it, and, conversely, to infer from the thought the exact corresponding molecular condition of the brain. We do not say—and this, as will be seen, is all-important—that the inference here referred to would be an *a priori* one. What we say is, that by observing, with the faculties we assume, the state of the brain, and the associated mental affections, both might be so tabulated side by side, that if one were given, a mere reference to the table would declare the other.

"Given the masses of the planets and their distances asunder, and we can infer the perturbations consequent on their mutual attractions. Given the nature of a disturbance in water, air, or ether, and from the physical properties of the medium we can infer how its particles will be affected. The mind runs along the line of thought which connects the phenomena, and, from beginning to end, finds no break in the chain. But when we endeavour to pass by a similar process from the phenomena of physics to those of thought, we meet a problem which transcends any conceivable expansion of the powers we now possess. We may think over the subject again and again—it eludes all intellectual presentation—we stand, at length, face to face with the Incomprehensible."

The discussion above referred to turns on the question: Do states of consciousness enter as links in the chain of antecedence and sequence which give rise to bodily actions and to other states of consciousness; or are they merely by-products, which are not essential to the physical processes going on in the brain? Now, it is perfectly certain that we have no power of imagining states of consciousness interposed between the

molecules of the brain, and influencing the transference of motion among the molecules. The thought "eludes all mental presentation;" and hence the logic seems of iron strength which claims for the brain an automatic action, uninfluenced by states of consciousness. But it is, I believe, admitted by those who hold the automaton-theory that states of consciousness are *produced* by the marshaling of the molecules of the brain; and this production of consciousness by molecular motion is certainly quite as unthinkable as the production of molecular motion by consciousness. If, therefore, unthinkability be the proper test, we must equally reject both classes of phenomena. I, for my part, reject neither, and thus stand in the presence of two Incomprehensibles, instead of one Incomprehensible. While accepting fearlessly the facts of materialism dwelt upon in these pages, I bow my head in the dust, before that mystery of the brain which has hitherto defied its own penetrative power, and which may ultimately resolve itself into a demonstrative impossibility of self-penetration.*

But, whatever be the fate of theory, the practical monitions are plain enough, which declare that on our dealings with matter depends our weal or woe, physical and moral. The state of mind which rebels against the recognition of the claims of "materialism" is not unknown to me. I can remember a time when I regarded my body as a weed, so much more highly did I prize the conscious strength and pleasure derived from moral and religious feeling, which I may add, was mine without the intervention of dogma. The error was not an ignoble one, but this did not save it from the penalty attached to error. Saner knowledge taught me that the body is no weed, and that if it were treated as such it would infallibly avenge itself. Am I personally lowered by this change of front? Not so. Give me their health, and there is no spiritual experience of those earlier years—no resolve of duty, or work of mercy, no act of self-denial, no solemnity of thought, no joy in the life and aspects of Nature—that would not still be mine. And this without the least reference or regard to any purely personal reward or punishment looming in the future.

* See Tyndall's "Fragments of Science," article "Scientific Materialism."