

there afforded to sight, must bring conviction that time is not only real, but that it moves in profound compatibility with eternal motion in matter, from the myriad electrons streaming within the dancing atoms of agitated molecules, to suns so distant that they are far beyond even photographic vision of the earth. If an additional thought be permissible here, the question may be asked whether it is not credible that, as matter and energy, so far as we know them, are recognized as immortal, one may not rationally suppose that mind may survive. It may be answered, as if conclusively, that all energy, so far as we know it, is interchangeable in character, that nothing has been more conclusively proved than its constant *mutability* throughout the action of the correlation and conservation of energy. True, but the saving clause herein lies in the fact embodied in the words, "so far as we know," and justly, too, for discoveries in this department of knowledge have not ceased to the present day. It is conceived by many as probable, and by many more as certain, that there is a form of energy, not inextricably correlated to its generally recognized forms, variously termed mind or soul, through which, if so, the existence of Deity as its highest type is implied. Certain it is, that if one chooses to regard nature as wholly materialistic, a distinctly greater difficulty would seem to be thereby admitted by the question as to the possibility of its producing through evolution what is universally recognized as mind.

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### MATHEMATICAL ANALOGY.

An article by Mr. McFarland in *The Monist* of October of last year, calls attention to a fruitful source of error in the reasoning of many people, who have picked up a knowledge of mathematics at second-hand, and think they can apply it to reasoning about the question of miracles or about moral problems. The whole mass of misleading speculation on this subject rests on two initial false assumptions.

1. There does indeed exist a connection between religious and mathematical doctrine; but the parallelism is not, as many suppose, between facts in the history of Palestine and curves drawn in Europe or America; but between two psychologic conditions. Any attitude

of mind or sequence of mental operations which, if a man were trying to trace a curve, would lead him into error and make him mistake the false for the true, is, *a fortiori*, likely to lead him into some error if he is trying to trace out the relative values and get the resultant of a mass of complicated evidence about something long ago. Therefore, a sound mathematician tests the value of his reasoning about miracles, by asking himself whether a parallel line of reasoning would make him "prove" something not true if applied to the simpler problem of tracing a curve.

2. But there is a far more serious caution which should be given. The process by which a person, who is not himself an original discoverer in mathematics, arrives at understanding, or thinking he understands, a demonstration at second-hand, is absolutely different from any process by which an original mathematician makes a discovery. Now, when a real mathematician speaks of applying his mathematical method to religious or moral questions, he means the method by which he originally arrived at the mathematical truth, the method by which he got his own mind into a condition to receive new mathematical truths as an inspiration. No real mathematician would think of applying a demonstrative method, such as that criticised by Mr. McFarland about the curve, to any question connected with religion, morals, or miracles. That a great many pseudo-mathematicians do make the attempt is a sufficient reason for being very grateful to Mr. McFarland for exposing its absurdity.

An experiment is now being tried in England, of giving children a few years of steady initiation into the methods used by the great original mathematicians for training themselves for sound inspiration, before the children are allowed to be shown the logical demonstration of any geometric proposition whatsoever. The results are rather remarkable, and are attracting a good deal of attention. An account of the method of training will probably be published in the course of this winter. It is believed to be as nearly as possible the same as was used in very ancient times in Egypt and India for training the privileged or priestly caste.

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