SCIENCE

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THE HUMAN WORTH OF RIGOROUS THINKING1

But in the strong recess of Harmony, Established firm abides the rounded Sphere.

-Empedocles.

AMONG the agencies that ameliorate life, what is the rôle of rigorous thinking? What is the rôle of the spirit that aspires always to logical righteousness, seeking "to frame a world according to a rule of divine perfection"?

Evidently that question is not one for adequate handling in an hour's address by an ordinary student of mathematics. Rather is it a subject for a long series of lectures by a learned professor of the history of civilization. Indeed so vast is the subject that even an ordinary student of mathematics can detect some of the more obvious tasks such a philosophic historian would have to perform and a few of the difficulties he would doubtless encounter. It may be worth while to mention some of them.

Certainly one of the tasks, and probably one of the difficulties also, would be that of securing an audience—an audience, I mean, capable of understanding the lectures, for is not a genuine auditor a listener who understands? To understand the lectures it would seem to be necessary to know what that is which the lectures are about—that is, it would be necessary to know what is meant by rigorous thinking. To know this, however, one must either have consciously done some rigorous thinking or else, at the very least, have examined some specimens

¹An address delivered before the Mathematical Colloquium of Columbia University, October 13, 1913.

MSS. intended for publication and books, etc., intended for review should be sent to Professor J. McKeen Cattell, Garrisonon-Hudson, N. Y.