

publication business and his personal financial estate. When he offered to sell the journals to the association on his retirement, he hoped to accomplish both desires at once. His proposals seemed fair to the Executive Committee and the association Council, which accepted them with expressions of appreciation and ordered them signed and duly sealed. Further study and clarification of those proposals led to a revised and more detailed agreement, which was also accepted and duly signed by both parties. Questions persisted, however, not only in the minds of many association members but also in Cattell's mind, as to whether the final signed agreement really embodied all that was desirable on both sides. In conversation he once said to me that he would be willing to consider cancelling the agreement if the association should propose that solution. But no action was taken. The second agreement was in part fulfilled when *The Scientific Monthly* was purchased by the association, and the remaining

part still stands, providing for the ultimate purchase of SCIENCE.

I am convinced that Cattell's original intention, in proposing that these journals should ultimately become solely the responsibility of the association, was to make a very fine gift to the organization and to American science workers. He regarded the specified terms of sale as a not too burdensome condition for such a gift. However that may be, those terms were definitely accepted by the association and they were adhered to in the recent purchase of *The Scientific Monthly*, which is now edited, published and managed, with evident success and great promise, by the staff of the association's Washington office. There can be no doubt that both association journals will be carried forward into the approaching new era of science advancement and that they will forever constitute a remarkable monument to one far-reaching aspect of Cattell's many achievements.

HIS SERVICE TO SCIENCE

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By the *diversity, duration and character* of Dr. Cattell's services to science our departed colleague has earned an enduring place in our hearts and in the history of American science. His services as president of our association are the least significant. Others more competent will speak of his many years and his great influence in the council and in the executive committee of the association. Dr. Cattell became the editor and publisher of SCIENCE fifty years ago. The character of that journal and its service to research and to education in science, we owe largely to that one man. That he had sufficient business acumen, foresight and energy to make SCIENCE, *The Scientific Monthly*, *School and Society* and his other publication projects carry on without subsidies, and succeed financially through their own merit, is additional evidence of Dr. Cattell's capacity and his faith in his fellow men. In these days of increasing specialization, our weekly journal, SCIENCE, has served and should increasingly serve to keep all of us somewhat in touch with progress and failure in all fields, and thus, discourage the development of the delusion that "what I am doing is the only work worth while."

The Scientific Monthly endeavors to present, in lay language, the significant problems and findings in special fields of science. Perhaps we should now take stock and inquire whether to-morrow we should, both in SCIENCE and *The Scientific Monthly*, present more regularly and clearly the method or methods yielding our new facts and our larger generalizations. In

"American Men of Science," Dr. Cattell initiated an inquiring look at the human variant called the scientist.

The passing of a colleague who rendered conspicuous service to science and society for sixty years compels those still in harness to pause and ponder. From the point of view of physics and chemistry the individual man is an insignificant clod in the common world-stuff. We in biology find this clod a challenging problem. What makes this clod click? What makes one man perform better than some of his fellows? The answer is still largely out yonder, in the unknown processes of living matter. We salute heredity and scan the environment, and yet we do not know. In his maturing youth our departed colleague was a student at the Johns Hopkins University, at Leipzig, at Göttingen, at Paris and at Geneva. In those days the Johns Hopkins University was up and coming, science in Germany lighted the entire civilized world, and the German university was the mecca for the budding American scholar. Cattell's brief sojourn at Bryn Mawr College and at the University of Pennsylvania should probably also be counted in as part of his Wanderjahre and of some significance in the making of the man—James McKeen Cattell.

I knew, though not intimately, our departed colleague for some forty years. Three elements in his character stood out, according to my observation: First, his broad interest, sound judgment, and wisdom; second, his extraordinary energy and capacity to

work; third, his conspicuous courage. All three were undoubtedly significant in his outstanding service to science during the last fifty years and his attempt to make science understood and therefore effective in the ways of life of our non-scientific fellow citizens.

A word about the Cattell courage. Some colleagues probably would term it stubbornness. Yes, Dr. Cattell was at times stubborn. He might have been less insistent had all the facts in the issue been clearly known. But, in my experience, dogmatism did not obscure Dr. Cattell's vision for long, not for days or years. His was a mind unusually open and inquiring. But he never compromised on what he considered established facts, probable reason based on facts and on fundamental justice and fair play. When Columbia University dismissed Dr. Cattell from his professorship in 1917, during the mass hysteria of World War I, dismissed him on the charge of treason, because he as a plain citizen had signed a petition urging Congress not to declare war, Dr. Cattell did not take that lying down. A man or woman really loyal to science can not be false to any man or any country governed by the principles prevailing in our own beloved land. At this juncture, Dr. Cattell displayed some of the courage of Galileo, who, when condemned on his facts by the prophets of superstition, still insisted that "the earth does move."

Dr. Cattell's worthwhile labors will endure only if we, on taking stock, discover the wisdom, the vision and the courage to carry on. What are these unfinished tasks, these seemingly endless labors of Hercules? (1) The light of scientific understanding, despite our boasting, has not yet penetrated very far into the unknown night. The scientific conquest of the yet unknown in every field appears to me a more stupendous task and a more worthwhile challenge than the subduing of the other fellow with bayonets and bombs. Assuming we have or can find the brains, we could travel faster on the road towards new discoveries, did we have more intellectual, moral and financial support from society. (2) If there be a better way of securing

understanding than by the method of science, human history and human experience have not yet revealed it. If this is a fact, it follows that the scientific method should be applied to all fields of human endeavor. This means that all men should have a workable understanding of it. Is that feasible? We will not know until we try, and so far we have not tried either very hard or with much persistence. Dr. Cattell made a start. We hear many words about the confusion in to-day's education. I think superficiality and triviality, rather than confusion, are our besetting sins in education. It is play in place of mastery, the "Quiz Kid" ideal of *what*, rarely proceeding to the *evidence* and the factual *why*. This is not an accusation against the other fellow. For when we examine the record, our own performance (in science education) is as yet below par. If our answer is: We can do no better with the human cerebrum against the primitive hypothalamus of man, we surrender our creed. We *can* try new devices with more persistence, if the *goal is clearly worth while*. Fortunately, we can not quit even if we want to, for human curiosity, human want and human pain are potent spurs. At present, education (even in the sciences) is largely memory conditioned by traditions and faith rather than by the exercise of reason based on understanding. But lest in these few lines about a great citizen and a great servant of science I (by partiality or exaggeration) sin against science itself, I must conclude by saying that the servants of science are not supermen. They are made out of the common human clay. And even they may at times falter in the application of their creed, which in terms of action reads: Keep your mouth shut and your pen dry till you know the facts. Use your intelligence and integrity with all diligence to get the facts. Then, and only then, can we speak with some measure of enduring wisdom as we walk humbly among our fellow men. Dr. James McKeen Cattell did not stray very often or very far from this difficult path during his sixty years of superb service to science.

RESOLUTION OF THE EXECUTIVE COMMITTEE

WHEREAS, The death on January 20, 1944, of J. McKeen Cattell has deprived this Executive Committee of this distinguished member:

Whose years of membership in the Committee have been continuous since its organization in 1920, and whose services to the Association began many years earlier;

Whose knowledge, comprehensive and incisive mind for so long have stimulated and guided the considerations of the Executive Committee;

Whose intelligent and constant concern about science and its services in America and throughout the world con-

stantly expressed itself in important and far-reaching ways;

Whose exceptional organizing, business, and editorial abilities initiated and developed scientific publications and scientific organizations of surpassing scope and usefulness;

Whose personal researches and teaching produced novel and major contributions to psychological science, and trained many superior students whose contributions to science are widely known;

Whose ever-alert mind, keen judgment and frank com-