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 constantly 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-

ment, when applied to the perplexities of his associates, helped many scientists to find their way more clearly through scientific and personal problems;

Whose friends, holding him in high professional respect and personal esteem, include almost all those who knew him.

Therefore, *be it resolved,*

That on this sixth day of February, 1944, we, the members of the Executive Committee of the Council of the American Association for the Advancement of Science, as the elected representatives of the Association, express to Mrs. J. McKeen Cattell and all other members of the family of Doctor J. McKeen Cattell, our appreciation of:

Doctor Cattell's unmatched services to American and International science and to scientific publications;

The privilege and good fortune in our long association with Doctor Cattell, and our sense of irreparable loss through his death.

The Executive Committee expresses its sympathy with Doctor Cattell's family and with the host of other friends of this truly great American citizen, and acknowledges the obligation of this Committee and the Council of the American Association for the Advancement of Science to go forward with the great work to which Doctor Cattell devoted so much of his thought and energy throughout his long and effective life.

J. W. BARKER
OTIS W. CALDWELL
W. B. CANNON
A. J. CARLSON
ARTHUR H. COMPTON
BURTON E. LIVINGSTON
KIRTLEY F. MATHER
F. R. MOULTON
E. C. STAKMAN
W. E. WRATHER

SOME PERSONAL CHARACTERISTICS

By Dr. R. S. WOODWORTH

PROFESSOR EMERITUS OF PSYCHOLOGY, COLUMBIA UNIVERSITY

DR. CATTELL was a man of strong character and disinctive personality. He was indeed, as has been said, a "dominant figure" in many scientific circles. It would be a mistake, however, to describe him as dominant in the sense of domineering or to imply that he was eager to dominate the groups in which he played so important a part. Characteristically outspoken and free-thinking, he was nevertheless not at all inclined to jump to a hasty conclusion or to express more than a tentative opinion on doubtful questions. He was an excellent committee man and council member, as amply proved by his fifty years of constructive service in such capacities.

In the old days it was true that many of his graduate students were afraid of him, as they had need to be if their experimental work was sloppy, if they neglected the literature of their problems, or claimed far-reaching conclusions from limited data, or failed to consider the "probable error" of their results. But the sincere research student had nothing to fear from Cattell, who was all interest and helpfulness. Instead of handing out prescribed dissertation subjects he gave each student the first say in the choice of a problem and followed the student's lead if it gave any promise of accurate scientific work. In consequence a great variety of experiments went on in his laboratory, though some of the best were following up his own leads. To his advanced students and junior colleagues he was a loyal personal friend as well as a keen scientific adviser.

In an after-dinner speech before a group of friends and associates, including many of his old students, Cattell told a story of his boyhood. His mother took him for examination to a phrenologist who gave the boy a fine rating in almost every respect but added one less favorable note: "You are deficient in will power!" The spontaneous outburst of laughter from his friendly audience seemed to surprise Dr. Cattell, who probably did not regard himself as a notably strong-willed individual. He may even as a youth have accepted the phrenologist's dictum and have striven earnestly to develop his will power. As an adult he certainly showed abundant courage in undertaking large and difficult tasks, and notable energy and persistence in putting them through. But as regards this matter of dominance his attitude was not one of imposing his will on his juniors and subordinates, though it was one of resisting domination by those higher up—unless their authority was due to merit and ability rather than simply to position. The ruling classes and pillars of society, and especially university presidents and trustees were the target of pungent epigrams which he evidently took great pleasure in concocting and applying to his victims in conversation and in his speeches and writings. Addressing a Johns Hopkins group at the time of President Remsen's inauguration he said:

> As Mr. Remsen told us that the professor would be pleased, but not particularly improved, by an increase in salary, I may perhaps be permitted to suggest that a president might be pained, but would not be seriously injured, by a reduction of his salary to that of the professor.

And speaking to a Harvard group on the baffling problems of the college curriculum he said: