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QUALIFICATIONS OF A RESEARCH PHYSICIST¹

By Dr. ALBERT W. HULL

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I AM going to show you, later, that the figure of merit of a research physicist is expressible in degrees of ignorance rather than knowledge. My first application of this theorem is the willingness, or temerity, to address you upon this subject, about which you know so much more than I.

Please note the narrowness of the subject. Research physicists are a small class—perhaps too small to be called a class. They are a part of the so-called creative group, which is rated at the top of the human ladder by certain students of society such as Dr. Charles R. Gow²; and by certain others as akin to the mentally unbalanced. Whether high or low doesn't concern us here. I am merely leading up to

¹ Address presented before the American Association of Physics Teachers, Bureau of Standards, April 30, 1931.

² Charles R. Gow, "Foundations for Human Engineering," Macmillan, 1930.

the first qualification of a research physicist, which is that he must be born that way.

The aptitudes with which a man is born determine, often uniquely, his field of successful activity. By field is meant, not a specified profession, but some one of a group of related activities which utilize the same qualifications. The most common classification recognizes three types of native ability: the research type, the engineering type, and the executive type. Sometimes the research and engineering types are classed together and a teaching type differentiated. For example, President Hadley³ summed up these qualifications for Yale undergraduates as follows:

Speaking broadly, men may be divided into three types or temperaments: the scientific type, consisting of men whose power lies in observing and arranging and put-

³ A. T. Hadley, "Choosing a Career," *Yale Alumni Weekly*, March 3, 1916.

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