

METHODS AND STATUS  
OF  
SCIENTIFIC RESEARCH

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AND  
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METHODS AND STATUS  
OF  
SCIENTIFIC RESEARCH

*With Particular Application  
to the Social Sciences*

*by*

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*Harper & Brothers Publishers*

NEW YORK AND LONDON

1930

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FIRST EDITION  
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## P R E F A C E

THIS book is designed for the beginner in research, particularly for college seniors and for those who are expecting to engage in research leading to the Master and Doctorate degrees in the social science fields. The work has been planned to provide the novice in research with the three most valuable tools necessary to successful research: (1) the principles of critical scholarship which appear to be most generally acceptable among the leading scholars of the world; (2) the proper technique to be used in applying the principles of scientific method; and (3) a general knowledge of the status of research today in those fields in which the social scientist does the major part of his research. Above all it is the purpose of this book to give the beginner in research that proper attitude of mind without which he cannot hope to produce scholarly results.

The authors believe that the mental development of young people, college students in particular, may be divided roughly into the following stages: The first is one which is fairly characteristic of the freshman whose chief concern in coming to college may be to secure his degree. Believing that the simplest way to do this is to master his texts and the lectures of his instructors, he becomes the more or less faithful follower of his narrow routine, and submits neither the texts nor the lectures to the cross-fire of extensive collateral reading which might raise disturbing doubts and so jeopardize the possibility of securing the grades necessary for the coveted degree. Furthermore, most college freshmen are very young and, therefore, have not acquired the intellectual maturity necessary for constructive study. This attitude and mental status of young students, real or assumed, are reflected in the arrangement of curricula and in the pedagogical procedure in vogue in high schools and in the first years in college. Schools are filling stations on the highway of life where young people stop to fill their absorptive minds with as many facts as they can

be made to hold under pressure. The whole procedure is rather arbitrarily conforming, and tends to accentuate the student's natural deficiencies; the student is not encouraged to reason why, to question and to doubt; he is taught to trust, to accept, and to believe—to follow, not to lead—to be intellectually passive.

Another stage in the student's mental development begins when he enters the realm of doubt. Some arrive at this stage earlier than others. In general, college sophomores, juniors, and seniors begin to manifest doubts in varying degrees as to the infallibility of books and instructors. They become conscious of their own mental powers and begin to enjoy their use. This is the beginning of their intellectual growth. They are passing from the purely acquisitive to the inquisitive stage, from a passive to an active mental life. This is a critical period in a student's life, because he has not had much mental discipline to fortify his doubt against an unbalanced skepticism. The mental pendulum may swing too far. Instead of a constructive critic, with an honest desire for truth, he may become a destructive and irrational fault-finder, who takes pride in doubting everything indiscriminately, and who thus acquires a negative philosophy of life—he is always looking for error and not for truth. Such a person is a trial to his teachers and to his friends.

Emerging from the transitional period of doubt, which is negative, the student enters the stage of constructive scholarship. This is the creative stage—that marking the beginning of intellectual maturity. Now the student brings to his task a questioning but disciplined mind, with confidence in his own power to discover truth. He has acquired mental poise and objectivity; he is ready to do constructive work, to enter into the field of scholarship.

It is for those persons who are approaching or have reached this constructive stage of mental development that this book on methodology is designed. It should afford them the guiding principles and technique, and aid them in developing the proper mental attitude toward their research problems and the evidence involved. The authors believe that of all the things which may be learned in proceeding through the various steps in formal education—particularly during the later stages—nothing is more valuable than the mastering of sound principles of methodology. Most facts

probably are forgotten, but good methodology becomes a fundamental part of one's mental attitude and method of doing things.

The authorship of this book is distributed as follows: Mr. Spahr wrote the chapters dealing largely with the principles of critical scholarship and with the status of research while Mr. Swenson wrote those dealing with technique. Specifically, the former is the author of Chapters I-VI, X, XI, and XIV-XVIII; the latter is the author of Chapters VII-IX, XII, and XIII.

With respect to his portion of the work Mr. Spahr wishes to express publicly his debt to Dr. Willford I. King, Professor of Economics, New York University, for his criticism of Chapters X and XI; to Dr. Clyde Eagleton, Associate Professor of Government, New York University, for his criticism of Chapter XV; to Dr. Earl E. Muntz, Associate Professor of Economics, New York University, for his suggestions with respect to the sociological aspects of the work; to Dr. Loyle A. Morrison, Assistant Professor of Economics, New York University, for his criticism of Chapters I and XI; and to Mr. Richard A. Girard, Assistant Instructor in Economics, New York University, who during the later stages of the work rendered most valuable service in checking references, in gathering materials, and in doing with characteristic care a great variety of other detailed work which usually falls on the author as a genuine burden.

Mr. Swenson, in a similar manner, wishes to acknowledge his indebtedness to Dr. Homer A. Watt, Professor of English, New York University, for reading and criticising Chapter XIII; and to Mr. Harry J. Freeman, of the faculty of the School of Law, New York University, for constructive suggestions relative to Chapter IX.

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*New York, 1929.*

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