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COWLES FOUNDATION

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at Yale University

SECOND EDITION

Social Choice
and
Individual Values

Kenneth J. Arrow

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To Selma, my wife

PREFACE TO SECOND EDITION

The literature on the theory of social choice has grown considerably beyond the few items in existence at the time the first edition of this book appeared in 1951. Some of the new literature has dealt with the technical, mathematical aspects, more with the interpretive. My own thinking has also evolved somewhat, although I remain far from satisfied with present formulations. The exhaustion of the first edition provides a convenient time for a selective and personal stocktaking in the form of an appended commentary entitled, "Notes on the Theory of Social Choice, 1963," containing reflections on the text and its omissions and on some of the more recent literature. This form has seemed more appropriate than a revision of the original text, which has to some extent acquired a life of its own.

K. J. A.

Tokyo, Japan
August 1963

ACKNOWLEDGMENTS

FIRST EDITION

This study was initiated in the summer of 1948 while I was on leave from the Cowles Commission as a consultant to The RAND Corporation, which is engaged in research under contract with the United States Air Force. It was further developed and assumed its present form at the Cowles Commission during the period of October, 1948, to June, 1949, as part of the general research program of the Commission which is conducted under a grant from the Rockefeller Foundation. During part of this period support was also received from The RAND Corporation under a contract between RAND and the Cowles Commission for the study of resource allocation. To these organizations I wish to express my appreciation for the interest shown in this study and for the facilities accorded to me.

I wish to express my indebtedness to the following individuals at RAND: A. Kaplan, University of California at Los Angeles, and J. W. T. Youngs, University of Indiana, for guidance in formulating the problem, and D. Blackwell, Howard University, and O. Helmer for other helpful discussions. The manuscript has been read by A. Bergson and A. G. Hart, Columbia University, and by T. C. Koopmans, Cowles Commission for Research in Economics and the University of Chicago, and I owe much, both in improvement of presentation and in clarification of meaning, to their comments. Development of the economic implications of the mathematical results has been aided by the comments of F. Modigliani, Cowles Commission and the University of Illinois, T. W. Schultz, University of Chicago, and H. Simon, Cowles Commission and Carnegie Institute of Technology. I have had the benefit of comments by J. Marschak, Cowles Commission and the University of Chicago, on the question of the measurability of utility, touched on in Chapter II. The section in Chapter VII on the decision process as a value in itself has benefited from suggestions by P. J. Bjerve, Central Statistical Bureau, Oslo, Norway, then a guest of the Cowles Commission, and M. Friedman, University of Chicago. For guidance in the unfamiliar realms of political philosophy, I must thank D. Easton, University of Chicago. The mathematical exposition has been considerably improved as a result of comments by T. W. Anderson, Cowles Commission and Columbia University, E. Nagel, also of Columbia University, J. C. C. McKinsey, The RAND Corporation, and J. W. T.

Youngs. I must also mention the stimulation afforded by several staff meetings of the Cowles Commission in which my thesis was submitted to the research group for discussion and criticism. Needless to say, any error or opacity remaining is my responsibility.

I cannot fully acknowledge here the great debt I owe to my many teachers, but I cannot refrain from singling out H. Hotelling, now of the University of North Carolina, to whom I owe my interest in economics and particularly my interest in the problems of social welfare.

Acknowledgment is also due Mrs. Jane Novick, Editorial Secretary of the Cowles Commission, for preparing the manuscript for publication and seeing it through the press and to Miss Jean Curtis, Editorial Assistant, for valuable aid in proofreading and preparation of the index.

SECOND EDITION

I wish to thank Miss Laura Stagers, of the Stanford Institute for Mathematical Studies in the Social Sciences, for her patient typing and retyping of the manuscript for Chapter VIII.

K. J. A.

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