Arms races, arms control, and conflict analysis
Arms races, arms control, and conflict analysis
Contributions from Peace Science and Peace Economics

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To my grandchildren,
whose grandchildren will, I hope,
have grandchildren to whom
they can dedicate their books
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Preface

Born shortly after World War I, I have seen immense changes during my life – changes whose immensity has been no greater perhaps than in the destructive capability of military weaponry. It is still unimaginable to me how mankind could have allowed technology to develop from a simple airplane that could drop a bomb that on average would result in a few casualties to a modern bomber that can launch missiles capable of annihilating probably hundreds of thousands if not millions with horrible after-effects upon many more millions. If such an increase in destructive capability is possible in one’s lifetime, I shudder to think what this capability will be when the grandchildren of my grandchildren write their books. Yet, I remain optimistic and hope that this book will make a contribution, however limited, to the most pressing problem of mankind – arms control – and that the grandchildren of my grandchildren also will be able to make their contributions to the solution of critical social problems.

It is difficult to say exactly when the ideas contained in this book began to take form in my mind. Certainly a desire to say something hopefully of value for averting wars and controlling international conflicts was well advanced when colleagues and I founded the Peace Research Society (International) in 1963 in Malmo, Sweden, later renamed the Peace Science Society (International). The Peace Science Society (International) is an international association for the advancement of peace research and related studies. The society operates as an objective, scientific organization without political, social, financial, or nationalistic bias. Its main objectives are to foster exchange of ideas and promote studies focusing on peace analysis and utilizing tools, methods, and theoretical frameworks specifically designed for peace research as well as concepts, proce-
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dures, and analytical techniques of the various social and natural sciences, law, engineering, and other disciplines and professions. The society supports these objectives by promoting acquaintance and discussion among its members and with scholars from all fields and regions of the world, by stimulating research, by encouraging the publication of scholarly studies, and by performing services to aid the advancement of its members and peace research.

Since the formation of the society I have been exposed to the thinking on conflict management, arms control, disarmament, and so on, of various scholars from various disciplines. To all of them I am indebted, for almost unavoidably over the last quarter of a century or so I have been absorbing their ideas. Thus this book is primarily a presentation of their ideas, hopefully ordered in a fairly systematic fashion, and not a potpourri of ideas. Many of their ideas are contained in the 29 volumes of Papers published by the Peace Science Society (International), later replaced by the Journal of Peace Science, now renamed Conflict Management and Peace Science. There were, too, many other unpublished contributions made and presented by scholars at Peace Science and other conferences that have influenced my thinking.

This book has two aims. One is to provide some basic background on international conflicts – particularly the U.S.–Soviet arms control conflict – which hopefully will be of value in some way or other (perhaps provide one or two new insights) to scholars, active negotiators, political leaders, primarily by covering the relevant contributions of scholars in many disciplines. After all, no one knows all there is to know about the interplay of forces governing a major conflict, say, the U.S.–Soviet arms control conflict; and the broad coverage of forces contained in this book can serve an educational purpose for each of us. For example, consider two of the major figures deeply involved in the U.S.–Soviet negotiations on arms control (1986–7) while this book was being written: U.S. Secretary of State George Shultz, whom I got to know when both of us taught elementary economics at MIT using the Samuelson textbook in its first mimeographed form, and Ambassador Max Kampelman (Head, U.S. Delegation to Negotiations on Nuclear and Space Arms), who engaged in extensive discussions when we were fellow conscientious objectors at the Big Flats campsite during World War II. Both have brilliant minds, tremendous intellectual capacities, and enormous stocks of knowledge. Yet each could learn much about the U.S.–Soviet arms control problem from writings of scholars reported upon in this book.

The other aim, equally important, has been to help lay a sound foundation for the interdisciplinary field of Peace Science. I do not profess to cover all the relevant topics that should come under the umbrella of this
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Discipline, only some of the key areas. There are undoubtedly several that have not been dealt with properly, for example, game theory and historical analysis. Some of these are noted and suggested in Chapters 14 and 15 of the book *Conflict Analysis and Practical Conflict Management Procedures* (Ballinger, Cambridge, Mass., 1982), written with Christine Smith, where a first attempt was made to define the field of Peace Science. I trust that younger scholars will come along to treat these topics adequately and handle better those covered in this manuscript.

At this point, it may be useful to suggest how different scholars and students might read this book most effectively. The present sequence of chapters is perhaps best for the nonmathematical reader. In Chapter 2, the difficult mathematics has by and large been confined to footnotes, and the more advanced chapters come in Part II of the book. The more advanced student and scholar might read the technical footnotes along with the text. He or she may also choose to read Chapter 13, on the synthesis of arms race models, immediately after Chapter 2, a survey of arms race models. The student may also want to read Chapter 14 (on learning by a group and its individual members), Chapter 15 (on information research and development from a dynamical systems viewpoint), and Chapter 16 (on invention and innovation in information research and development for problem solving) immediately after Chapter 6, on learning, problem solving, and information research and development. There are of course readers who may be interested in only one of the several basic topics covered by the book. Those interested in arms races only should find interesting materials in Chapters 2 and 13. Those interested in individual and group behavior and decision making should find relevant materials in Chapters 3–5. Those interested in learning, problem solving, and information development should read Chapters 6 and 14–16. Those interested in policy formulation and argumentation and the development of supporting data should read Chapters 7–9. Those interested in negotiations and mediation should read Chapter 10 and perhaps Chapter 11.
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