

PREFACE

This pedagogical book addresses the modeling, interpreting, testing, and presentation of interactive propositions in regression analysis. We intend it to provide guidance on these issues to advanced undergraduates, graduate students, and researchers in political science and other social-science disciplines. We begin by explaining how verbal statements of interactive arguments and hypotheses translate into mathematical empirical models including, and statistical inferences regarding, interactive terms. The book then provides advice on estimating, interpreting, and presenting the results from such models. It provides next an explanation of some existing general practice rules and, last, a discussion of more advanced topics including nonlinear models and stochastically interactive models. The concluding chapter outlines our general advice for researchers as they formulate, estimate, test, interpret, and present interactive hypotheses in their empirical work.

This project evolved from a previous paper, Cindy D. Kam, Robert J. Franzese, Jr., and Amaney Jamal, “Modeling Interactive Hypotheses and Interpreting Statistical Evidence Regarding Them,” presented at the 1999 Annual Meetings of the American Political Science Association. We thank Amaney Jamal for her key role in those origins, and we also gratefully acknowledge Joel Simmons for research assistance in updating some data from the previous project. Finally, we thank Jacob Felson and Michael Robbins for assistance in preparing the final manuscript.

All calculations, tables, and figures can be reproduced using supplementary materials located at www.press.umich.edu/KamFranzese/Interactions.html.