

PREFACE

Individuals share information; we self-select into social groups; most of us live and work in close proximity in cities and in firms, both important features of modern economic life. Economists, influenced by other social scientists and recognizing that disciplinary boundaries are sometimes arbitrary, have developed new theoretical models and empirical tools for understanding the social interactions that underlie interpersonal and community life.

This book offers a synthesis of research on the economics of social interactions, a body of knowledge made up of strands from several areas of economics. My goal is to provide a set of tools that can be used to structure empirical investigations and to interpret empirical findings in ways that make recent research in economics accessible as a tool to scholars in other social science disciplines. In other words, the book is designed to enrich our set of metaphors for understanding and modeling the fabric of communities, their neighborhoods, and their consequences for studying larger regional and national economies. Identifying and measuring the importance of social interactions is a challenging task because of the inherent difficulty in separating personal, social, and cultural forces from purely economic ones. Social interactions have important impacts on phenomena ranging from the diffusion of norms to how students learn from one another, and from causes of urban decay to explanations for economic growth.

The concept of social interactions has already shown its value in exploring many facets of interdependence between actors in the modern economy. In economics, social interactions are defined as direct agent-to-agent interactions that are not mediated by price. My overarching theme in this book is proximity in all of its dimensions and its impact on interactions among individuals and firms in society and in the economy. Chapter 1 introduces highlights of the significance of social interactions. Chapter 2 sets out the basics of the analytical language that I then use throughout the book to describe social interactions. The subsequent chapters use that analytical language. Chapter 3 examines location decisions of individuals and emphasizes the study of neighborhood effects in housing markets and their interaction with the role of prices in rationing admission to communities and neighborhoods in market economies. Chapter 4 looks at the impact of interactions on firms' location decisions, focusing on the effects of proximity to other firms, the size of the total urban economy, the availability of a suitable labor force, and risk pooling. Chapter 5 builds on the foundations laid down in earlier chapters when economic agents interact in physical space. It examines how the interactions of individuals and firms in their vicinity and in broader communities help

us understand the spatial structure of cities as self-organization by agents. Chapter 6 documents spatial patterns in productivity, wages, and incomes and addresses the origin of the idea that spatial concentration causes higher productivity. The chapter starts with aggregative spatial measures, such as economic activity at the level of states, regions, and counties, and moves to the smaller scale of cities and their neighborhoods. In chapters 7–9 the city is ultimately the unit of analysis. Those chapters address urban structure, industrial specialization and diversification, and urban growth in the context of national economic growth. Each chapter provides its own microfoundations and moves progressively from static settings to dynamic economies in steady states, such as the model of labor market turnover in chapter 7 and the empirics of urban evolution in chapter 8. Chapter 9 explores models of long-run growth with factor accumulation and endogenous technological change.

Finally, chapter 10 speculates about the prospect of a deeper understanding of social interactions in urban settings, introducing broader sets of tools for describing the entire social fabric. I cogitate about ways the interplay of actors in the physical, economic, and social space allows interactions to make the global local. It ends by comparing individuals and their social interactions to an archipelago. Components of the urban economy and social structure interact in numerous ways, sometimes reaching far and other times concentrating locally as they react to economic and social forces. The models can allow an economy to self-organize in the face of vicissitudes within an ever-changing environment, as adverse shocks alternate with payoffs from increasing returns.

My goal is to emphasize that our knowledge of social interactions rests on data, on the empirical findings that derive from them, and on the applied economics that made those findings possible. It also reflects my view that the only way to do justice to the empirical findings is to present their theoretical underpinnings. Each chapter interweaves original material with syntheses of the existing literature, going back and forth between theory and empirics.

The book comes at a time when a torrent of new research has become available. Among several particularly elegant new books, those by Glaeser (2008), Jackson (2008), and Zenou (2009a) stand out. My goal is to provide a synthesis for economist and noneconomist readers that organizes the interacting areas of this very active research topic. Of course, I hope that others will build on my synthesis.

I am truly grateful to a great number of friends, some of whom also happen to be colleagues and research collaborators (from whom I have learned enormously, and especially from Vernon Henderson and Christopher Pissarides), who have shown great selflessness and immeasurable patience in reacting to my work over many years. Many offered suggestions and corrections during presentations of parts of the research that led to this book. Some generously offered thoughtful suggestions on earlier related work and on drafts of parts of the book. They include Tom Bender, Marcus Berliant, Larry Blume, John Boulton, Yann Bramoullé, Drusilla Brown, the late Toni Calvo-Armengol, David Cuberes, Linda Harris Dobkins, Gilles Duranton, Steven N. Durlauf, Dennis Epple, Yannis Evrigenis, Xavier Gabaix, Dominique Goux, Bryan

Graham, Hans Haller, Bob Helsley, Vernon Henderson, Wen-Tai Hsu, Panle Jia Barwick, Matt Kahn, Tomoo Kikuchi, Alan P. Kirman, Anne Laferrère, the late Linda Datcher Loury, Stelios Michalopoulos, Tomoya Mori, Henry G. Overman, Theodore Palivos, Christopher A. Pissarides, Diego Puga, Danny Quah, Esteban Rossi-Hansberg, Kjell Salvanes, Kurt Schmidheiny (and his and Giacomo Ponzetto's students at Pompeu Fabra), Tracey N. Seslen, Spyros Skouras, Adriaan Soetevent, Michael Sobel, Enrico Spolaore, Takatoshi Tabuchi, Chih Ming Tan, Heiwai Tang, Giorgio Topa, David Warsh, Bruce Weinberg, Jeff Zabel, Marios Zachariades, Giulio Zanella, Yves Zenou and Junfu Zhang. I benefited from a wonderful research environment provided by my colleagues at Tufts and by the MacArthur Research Network on Social Interactions and Economic Disparities, directed by Kenneth J. Arrow and Steven N. Durlauf during 1998–2005. The interactions in the network helped me decisively in clarifying my ideas. I acknowledge with gratitude resources from the MacArthur Foundation, the Max and Herta Neubauer Chair in Economics at Tufts, and the National Science Foundation under grants SBR-9618639 and ACI-9873339. I benefited greatly from the regular compilations of working papers produced as “New Economics Papers: Urban and Real Estate Economics,” part of Research Papers in Economics (RePEC), edited by Stephen Ross, and *Economics of Networks eJournal*, part of the Social Science Research Network (SSRN), edited by Nicholas Economides. I thank Thad Beal whose *Chance Construction 2* is so brilliantly evocative of how human networks overlay urban geography.

I wish to especially acknowledge my intellectual gratitude to Alan Kirman for encouraging me early on, and to Steven Durlauf, whose own research in related areas and whose comments and friendship over more than 15 years have had an extraordinary influence on much of my work reflected in this book. My friends Costas Azariadis, Dimitri P. Bertsekas, and Christopher A. Pissarides taught me the importance of setting high standards for oneself. I am grateful to the anonymous reviewers at Princeton University Press whose comments improved the manuscript enormously. Peter Dougherty, Tim Sullivan, and Seth Ditchik at the Press have been enthusiastic, very encouraging, and extraordinarily patient, and so has Janie Chan. Very special thanks go to Carol Dean for superb copyediting, and to Natalie Baan for meticulous care of the manuscript. Finally, Anna Hardman and Kimon Ioannides in different ways have been wonderfully helpful to me throughout this undertaking: Anna, with her tireless advice and editorial help, and Kimon, whose steadfast advice that writing a book is a different and worthy kind of challenge, kept me going.

September 25, 2011