William C. Cockerham *Editor*

Medical Sociology on the Move

New Directions in Theory

Springer

Medical Sociology on the Move

William C. Cockerham
Editor

Medical Sociology on the Move

New Directions in Theory

Springer

Editor
William C. Cockerham
Department of Sociology
University of Alabama at Birmingham
Birmingham, AL
USA

ISBN 978-94-007-6192-6 ISBN 978-94-007-6193-3 (eBook)
DOI 10.1007/978-94-007-6193-3
Springer Dordrecht Heidelberg New York London

Library of Congress Control Number: 2013934017

© Springer Science+Business Media Dordrecht 2013
This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. Exempted from this legal reservation are brief excerpts in connection with reviews or scholarly analysis or material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work. Duplication of this publication or parts thereof is permitted only under the provisions of the Copyright Law of the Publisher's location, in its current version, and permission for use must always be obtained from Springer. Permissions for use may be obtained through RightsLink at the Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law.
The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.
While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Contents

Contributors

Ellen Annandale is Professor of Sociology at the University of Leicester, UK. She has a longstanding interest in the relationship between gender and health and what it can tell us about social relations of gender in both contemporary and historical contexts. She is editor of Social Science and Medicine and her most recent monograph is *Women's Health and Social Change* (Routledge, 2009).

Kathy Charmaz is Professor of Sociology and Director of the Faculty Writing Program at Sonoma State University, in which she assists faculty from diverse disciplines in their research and writing. The areas of her current scholarship include illness and disability, symbolic interactionism, ethics in qualitative research, qualitative analysis, and writing for academic publication. She has written, co-authored, or co-edited nine books including *Good Days*, *Bad Days*: *The Self in Chronic Illness and Time*, which received awards from the Pacific Sociological Association and the Society for the Study of Symbolic Interaction, and *Constructing Grounded Theory*: *A Practical Guide through Qualitative Analysis*, which received a Critics' Choice award from the American Educational Studies Association and has been translated into Chinese, Japanese, Polish, and Portuguese. Her recent multi-authored books are *Five Ways of Doing Qualitative Analysis*: *Phenomenological Psychology*, *Grounded Theory*, *Discourse Analysis*, *Narrative Research*, *and Intuitive Inquiry* (2011) and *Developing Grounded Theory*: *The Second Generation* (2009). She has received the Goldstein award for scholarship from Sonoma State University, and the George Herbert Mead award for Lifetime Achievement and the Feminist Mentors Award from the Society for the Study of Symbolic Interaction.

William C. Cockerham is Distinguished Professor of Sociology and Chair at the University of Alabama at Birmingham and is the immediate past president of the Research Committee on Health Sociology of the International Sociological Association. His areas of research are transnational studies of health and health lifestyles. He has published several books and articles, including the *New Blackwell Companion to Medical Sociology* (Wiley-Blackwell, 2010), *Sociology of Mental Disorder* (Pearson Prentice-Hall, 2010), *Health and* Globalization (Polity, 2010), and *Medical Sociology*, 12th edition (Pearson Prentice-Hall, 2012).

Peter Conrad is Harry Coplan Professor of Social Sciences at Brandeis University. He received his Ph.D. in Sociology from Boston University in 1975 and has been on the faculty at Brandeis since 1979. He served as chair of the Department of Sociology for nine years and is currently chair of the interdisciplinary program on Health, Science, Society, and Policy (HSSP). He is the author of over one hundred articles and chapters and nine books, including the awarding winning, *Deviance and Medicalization*: *From Badness to Sickness* (with Joseph W. Schneider) and his most recent book, *The Medicalization of Society*: *On the Transformation of Human Conditions into Treatable Disorders* (John Hopkins, 2007). His honors include the Charles Horton Cooley Award (1981), a Distinguished Fulbright Fellowship (1997), and the Leo G. Reeder Award (2004) from the American Sociological Association for distinguished contributions to medical sociology

Alex Dumas is Associate Professor in the School of Human Kinetics at the University of Ottawa in Canada. He has published in journals such as *Ageing and Society*, *Social Theory and Health*, and *Leisure Studies*. His latest publication "Rejecting the Aging" was published in the *Routledge International Handbook of Body Studies*. His current research deals with the health practices of men in underprivileged neighborhoods, antiaging discourses in biomedical sciences, and women's discursive constructions of health and obesity.

Brian P. Hinote is Assistant Professor of Sociology at Middle Tennessee State University, where he is a specialist in the sociology of health and medicine. Professor Hinote's most recent scholarship explores novel applications of sociological theory in medical sociology, health care delivery, and clinical practice. His other areas of research examine numerous dimensions of the Russian and post-Soviet health crises, as well as various health and policy issues in the United States and other international contexts. Recent publications appear in *Social Science and Medicine*, *Social Theory and Health*, *Appetite*, and the *Journal of Healthcare*, *Science and the Humanities*.

Bruce G. Link is Professor of Epidemiology and Sociomedical Sciences at the Mailman School of Public Health of Columbia University and a Research Scientist at New York State Psychiatric Institute. His interests include the nature and consequences of stigma for people with mental illnesses, the connection between mental illnesses and violent behaviors, and explanations for associations between social conditions and morbidity and mortality. In 2002, he received the Leonard Pearlin Award for career achievement from the Mental Health Section of the American Sociological Association and was elected to the Institute of Medicine in 2002. In 2007, Dr. Link received the Leo G. Reeder Award from the Medical Sociology Section of the American Sociological Association and the Rema Lapouse Award from the Mental Health Section of the American Public Health Association. He is the Director of the Psychiatric Epidemiology Training Program, the Director of the Center for Violence Research and Prevention, and a Director (with Peter Bearman) of the Robert Wood Johnson Health and Society Scholars Program at Columbia University.

Sigrun Olafsdottir is an Assistant Professor of Sociology at Boston University. Her research interests are at the intersection of medical, political, and cultural sociology with a specific focus on understanding how broader societal arrangements impact individual lives. Her work has appeared in various journals, including the *Journal of Health and Social Behavior*, *Social Science and Medicine*, *Journal of the American Academy of Child and Adolescents Psychiatry*, *European Sociological Review* and *Sociological Forum.*

Jo Phelan is Professor of Sociomedical Sciences in the Mailman School of Public Health at Columbia University. Her academic interests focus on social inequalities in health and mortality, stigma and discrimination, and the impact of the genomics revolution on stigma and discrimination.

Graham Scambler is Professor of Medical Sociology and Chair of the Sociology Network at University College London, UK. He has wide ranging interests, covering social and critical theory, health inequalities, the sociology of chronic and disabling conditions, stigma, sex work, and sport. He has published over 150 books, chapters and academic papers in these areas. He is a founding co-editor of the international journal *Social Theory and Health*. His latest edited book, published in 2012, is *Contemporary Theorists and Medical Sociology* (Routledge). He was elected an Academician of the Academy of Social Sciences in the United Kingdom in 2010.

Sasha Scambler is a Lecturer in Sociology at King's College London Dental Institute, UK. She has carried out extensive work on the experiences of families with Batten disease and researched and published on the application of disability and social theory to chronic disabling conditions and loneliness in later life. She is co-editor of the journal *Social Science and Dentistry*, has published numerous papers, and is co-author of The Social World of Older People (Open University Press, 2009) and co-editor of *Sociology of Chronic Illness and Disability*: *Assaults on the Lifeworld* (Palgrave MacMillan, 2010).

Lijun Song is an Assistant Professor in the Department of Sociology and Center for Medicine, Health, and Society at Vanderbilt University. Her scholarly interests focus on causes and consequences of social networks, social integration, social capital, and social support. Her recent publications appear in the *Journal of Health and Social Behavior*, *Social Networks*, and *Social Forces*. She has also co-authored a chapter with Nan Lin and Joonmo Son on social capital in *The New Blackwell Companion to Medical Sociology* (2010).

Bryan S. Turner is the Presidential Professor of Sociology and the Director of the Committee on Religion at the Graduate Center at the City University of New York. He was Professor of Sociology at Cambridge University (1998–2005) and the Alona Evans Distinguished Visiting Professor of Sociology at Wellesley College (2009–2010). His publications relating to the body, medical sociology, and aging include *The Body and Society* (1984), *Regulating Bodies* (1992), *The New Medi-*

cal Sociology (2004), and *Can We Live Forever?* (2009). He edited the *Routledge Handbook of Body Studies* (2012).

Jason Adam Wasserman is currently Assistant Professor of Bioethics at Kansas City University of Medicine and Biosciences. His research has focused on homelessness and integrating social science into clinical medicine. Along with Jeffrey Michael Clair, he recently published a book entitled *At Home on the Street*: *People*, *Poverty*, *and a Hidden Culture of Homelessness* (Lynne Rienner, 2010) as well as a documentary film entitled *American Refugees*: *Homelessness in Four Movements* (2011). He has previously published in *Social Science and Medicine*, *the Journal of Contemporary Ethnography*, *Qualitative Research*, *Culture and Organizations*, *Journal of Medical Ethics*, *Visual Communication*, *Journal of Medicine and Philosophy*, and *Social Theory and Health*, among others.

Chapter 1
The Rise of Theory in Medical Sociology

William C. Cockerham

The purpose of this book is to provide readers with a single source reviewing and updating developments in theories commonly used today in medical or health sociology. It originated in papers and discussions in a session on new developments in theory in medical sociology at the International Sociological Association's 2010 World Congress of Sociology held in Gothenburg, Sweden. The session itself was scheduled because theoretical work has increasingly become a major feature of medical sociology. When the field first appeared as a new sociological specialty in the mid-twentieth century, much of the work was atheoretical. Over time, this situation has changed dramatically and it is the task of this book to not only discuss the major theoretical approaches, but to also identify new directions in theory in medical sociology.

Three of the chapters are contributed by the original theorists—Bruce Link and Jo Phelan on fundamental cause theory, Peter Conrad on medicalization, and William Cockerham on health lifestyle theory—and the other chapters are all written by selected senior scholars (Kathy Charmaz, Linda Liska Belgrave, Bryan Turner, Graham Scambler, Ellen Annandale, and Bernice Pescosolido) and rising younger medical sociologists (Sigrun Olafsdottir, Alex Dumas, Sasha Scambler, Brian Hinote, Jason Wasserman, and Lijun Song) with special expertise in theory.

Theory is critically important to every academic discipline because it provides a conceptualization about how sets of phenomena or a particular phenomenon works in the empirical world. As Karl Popper pointed out several decades ago in *The Logic of Scientific Discovery* (1934/1992 p. 59), theories are "nets" that allow us to catch what we call the world in order to understand and explain it, and we endeavor to make the net's mesh ever finer and finer. Theories in sociology

---

W. C. Cockerham (✉)
University of Alabama, Birmingham, Alabama
e-mail: wcocker@uab.edu

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_1, © Springer Science + Business Media Dordrecht 2013

provide definitions and sets of propositions explaining some facet or facets of social reality. Usually these propositions are testable so the validity of the theory can be either confirmed, modified, or rejected. Over time, theories may be discarded as social conditions change or better theories emerge; consequently, theoretical work is continually ongoing and evolving.

Many techniques developed by sociologists have been adopted by other disciplines, including both quantitative and qualitative research methodologies, such as social surveys and participant observation. However, sociological theory remains *the* most important pillar of medical sociology's uniqueness in studies of health and disease. It is the sociological perspective, as exemplified by its theoretical gaze, which gives medical sociology its distinctiveness in comparison to research in public health, health psychology, health services research, and behavioral medicine. Therefore, one of the major developments in medical sociology since the 1950s is the increased use of sociological theory to provide explanatory models of the social processes affecting health and disease. In fact, it can be successfully argued that medical sociology has a robust theoretical literature and the use of theory is now a major strength of the field, as demonstrated by the chapters in this book.

In the beginning, as noted, medical sociology was largely atheoretical. It came into being during the years after World War II when Western governments sought to improve the lives of the populations in their respective countries. One strategy was to address the social conditions associated with poor health through the use of sociological research that could be applied to health-related policies and improving medical care (Bloom 2002; Cockerham and Scambler 2010; Cockerham 2012). This meant funding, research opportunities, and jobs for sociologists on topics that paired work in their specialty with research in public health and medicine. Some of the people working in medical sociology at this time had little or no formal sociological training and switched to the new specialty because of the opportunities (Claus 1983). The questions they researched tended to be more relevant for medical practice than sociology and the new specialty began to emerge largely outside of mainstream sociology.

Parsons' Sick Role

While contributing to medical practice and health policy is an essential role of medical sociology, a lack of theoretical insight undermines the capability of medical sociologists to make systematic analyses and conclusions. A theoretical base was clearly needed for medical sociology to establish itself as a scientific subdiscipline and the catalyst for this development was the publication of Talcott Parsons' *The Social System* in 1951. Within its pages, was his concept of the sick role, the first theoretical statement directly applicable to medical sociology. The propositions he listed about the roles and norms associated with being sick still have some applicability today, including the social imperative to *try* to get well. Parsons was a world figure in sociology and anything he published at the time attracted considerable attention from the global sociological community. His book *The Social System* had a wide readership because he intended to provide the ultimate theory about how large social systems worked based upon the then popular structural-functionalist perspective.

As we know now, Parsons was unsuccessful in providing the definitive theory of society and structural-functionalism is no longer an active theory. In fact, one of Parsons' lasting contributions may have been to call attention to medical sociology as a fertile theoretical field. At the time, during the 1950s and 1960s, when medical sociology was established as an academic specialty in the United States, the structural-functionalist perspective advocated by Emile Durkheim and Parsons was the dominant theory in all of sociology. He demonstrated that the topic of sickness could be embraced by mainstream sociology in the first contribution ever by a leading theoretician directly applicable to medical sociology. More than any other sociologist of his generation, Parsons made medical sociology academically respectable by providing its inaugural theoretical orientation and calling attention to its potential as an important area of sociological inquiry (Cockerham 2012).

As for structural-functionalism, no one today refers to themselves as a structural-functionalist and the perspective joins another major twentieth century theory, conflict theory, in the category of what George Ritzer and William Yagatich (2012 p. 105) have currently described as "zombie theories." Zombie theories are theories that may seem alive to some supporters, but they are actually either dead or "at least in the process of dying while moving toward a zombie-like state" (Ritzer and Yagatich 2012 p. 105). Conflict, of course, is ongoing in the social world and the topic remains important, yet finding conflict in social situations does not make one a conflict theorist in their view. The theory sparked opposition because, like structural-functionalism, it accorded the individual little opportunity for creativity. Additionally, it was never fully developed and was severely criticized for ignoring social order and stability, just as it had earlier attacked structural-functionalism's failure to account for conflict and change (Ritzer 2011). Once structural-functionalism largely disappeared, conflict theory's value as an alternative faltered, leading Ritzer and Yagatich (2012) to rank it in the zombie category. Moreover, conflict theory never evolved as a leading theory in medical sociology and gained even less of a foothold than structural-functionalism which could at least point to the significance of Parsons' (1951) concept of the sick role.

Agency Theories: Symbolic Interaction and Social Construction

Symbolic Interaction

Among the so-called "big three" sociological theories—structural-functionalism, conflict theory, and symbolic interaction—that dominated all of sociology, including the new medical sociology in the 1960s, symbolic interaction has survived the best, although Ritzer and Yagatich suggest it might be on life support. Symbolic interaction emerged in the 1960s as the leading agency-oriented theoretical paradigm. Agency is a term referring to the capacity of the individual to freely select his or her behavior. The primacy of agency is embedded in the core of the symbolic interactionist perspective whose popularity signaled the beginning of the end of the dominance of structural-functionalism in sociological theorizing.

Symbolic interaction was expressly concerned with understanding the individual's stream of consciousness, internal self-conversations, the development of the individual's self-concept in relation to social experiences with other people, self-definitions of social situations, and the merging of individual behavior into collective expressions of joint or group activities (Blumer 1969; Mead 1934). While it stressed the distinctly social character of everyday group life, the initial focus was deeply lodged in the socialization of individuals and how they came to recognize and adopt as their own the social perspectives of their significant others, groups, communities, and societies (Mead 1934). Thus the starting point for symbolic interactionist theorizing invariably begins with how self-awareness and agency emerges in the individual through the process of social experience.

Symbolic interaction flourished in 1963–1970 and brought with it a corresponding increase in the influence of agency in sociology generally. By the 1980s, however, symbolic interaction entered a period of decline that extended to its use in medical sociology. Labeling theory, a major variant of symbolic interaction, likewise came under criticism. Despite its merits in accounting for the powerful and often lasting effects of social "labels" (e.g., HIV-infected, ex-mental patient, ex-convict) placed by others on individuals and affecting the way they are treated, labeling theory could not explain the causes of deviance (other than the reactions of other people), nor whether deviants themselves shared common characteristics like poverty, stress, or social backgrounds relevant to their deviance. Moreover, as pointed out by Norman Denzin (1992), a major figure in symbolic interaction at the time, the larger body of theory represented by symbolic interaction generally seemed to have reached its limits and taken on the image of a "fixed doctrine." That is, the theory seemed to have gone as far as it could and no new developments were forthcoming. Furthermore, symbolic interaction suffered from a methodological handicap in that studies using the perspective employed qualitative methodologies (e.g., participant observation, focus groups) and most research in American sociology generally was quantitative and based on statistical analyses of survey data.

Even though less influential than in the past, symbolic interaction continued in the late twentieth century with some interactionists moving into postmodern theory and others into the study of emotions and social constructionism. Postmodern theory, despite its early promise of explaining contemporary social change, was unable to account for the social conditions and structures following the transition from modernity to post modernity, never gained a foothold in medical sociology, and is near extinction (Cockerham 2007). Research on the sociology of emotions, in contrast, has increased as interactionism fills an analytic gap between biological approaches and non-biological social theories like social constructionism.

In order to investigate whether symbolic interaction is indeed headed toward "zombie" status in health or medical sociology, Chap. 2 examines modern symbolic interaction theory and its application to health. Written by Kathy Charmaz and Linda Liska Belgrave, the chapter begins with a brief review of the central tenets of symbolic interaction, followed by a discussion of how the theory is used to account for the lived experience of illness and aging, before examining ways in which it can be applied beyond the micro level or small group level that could give the perspective a longer life. Charmaz and Belgrave observe that, contrary to some of its critics, there are new developments in symbolic interaction theory.

Social Construction

An important legacy of symbolic interaction is its influence on social construction theory, often referred to as social constructionism. For example, as noted by Bryan Turner (2004), the classic text of social constructionism is Peter Berger and Thomas Luckmann's *Social Construction of Reality* (1967) which is solidly grounded in the symbolic interactionist perspective. Other works are also important, such as Eliot Freidson's (1970a, 1970b) analysis of medical knowledge in his study of the American medical profession and the views of Michel Foucault (1979) depicting the social control of the body as a product or outcome of power and knowledge utilized by dominant groups such as the state, church, and medical profession.

Social constructionism is the dominant theoretical perspective in the UK, although its use has been much slower to expand in the US. It does not have a uniform doctrine and is divided into branches. One major branch, reflecting its symbolic interaction roots, is influenced by Berger and Luckmann (1967) and features a strong emphasis upon agency. Another branch, virtually ignores agency and is influenced by the work of Michel Foucault (1979) emphasizing the tight relationship between knowledge and power. These different types of constructionism present very differing versions of agency and thus have different implications for an understanding of the relationship between health and disease (Turner 2004 p. 43). Nevertheless, social constructionism as a whole does have some unity in that its various practitioners agree that scientific knowledge and biological discourses about the body, health, and illness are produced by subjective, historically determined human interests and are therefore subject to change and reinterpretation (Gabe et al. 2004 p. 130). A diagnosis, for example, represents the transformation of physiological symptoms into socially appropriate behavior for the person who has been diagnosed and carries with it a changed social status.

While doctrinal uniformity is lacking, there are other difficulties, such as sometimes failing to acknowledge the biological realities of certain illness scenarios, rejecting the possibility that knowledge can be discovered (by insisting that knowledge can only be socially constructed), and adopting a relativist position that no one form of knowledge is more valid than another which calls the validity of all theories into question, including social construction (Gabe et al. 2004; Turner 2004). Nevertheless, social constructionism remains popular in studies of the body, the use of genetic information and other medical knowledge, women's health, patient-physician interaction, physical disability, aging, and other topics.

Chapter 3 in this book, by Sigrun Olafsdottir, provides a current update of social constructionism and its merits for medical sociology. Following the Berger and Luckmann path, she employs a cross-national perspective to determine its value. Olafsdottir concludes that it is an important perspective for understanding cultural influences on the meanings of illness, distinctions between normal and abnormal, ways in which illness responses are embedded in the community, and how medical knowledge itself is impacted by social factors. She then discusses the strengths and weaknesses of the approach and considers future directions, noting how health and illness is indeed simultaneously impacted by biological realities, cultural traditions, historical patterns, and institutional arrangements.

A New Look at Foucault and Marx

Two sociologically relevant theorists whose influence has persisted into the twenty-first century are Foucault and Karl Marx. Foucault provided social histories of the manner in which knowledge produced expertise that was used by professions and institutions, including medicine, to shape and control social behavior. Knowledge and power were depicted as being so closely connected that an extension of one meant a simultaneous expansion of the other. In fact, Foucault often used the singular term knowledge/power to express this conceptual unity (Turner 1995). For example, in *The Birth of the Clinic* (1973) Foucault described how the medical profession used their quest for clinical knowledge to define the human body as an object of study subject for medical intervention and control.

In Chap. 4 of this book, Bryan Turner and Alex Dumas use Foucault's work as a backdrop to a discussion of prolongevism, which is a social movement focused on prolonging life through medical intervention. In doing so, they extend the utility of Foucault's ideas in a new direction toward research in aging. They first discuss the life extension "project" and then show how Foucault's theories, especially his notion of governmentality, are applicable to the study of aging. Two dimensions of the problem of aging in society emerge from this chapter, one is the challenge faced by the state (statecraft) in managing an aging population and the other is on how the soul (soulcraft) manages an aging body.

Chapter 5 by Graham and Sasha Scambler is based largely on the work of Marx, but in a novel approach, they combine Marx with critical realism. In doing so, they suggest a provisional post-Marxist theory of health inequalities. The critical realism perspective in sociology has been advanced by Margaret Archer (1995) and is based on the work of British social philosopher Roy Bhaskar (1998) who trained as a sociologist. Critical realism highlights the openness of social systems to process and change. People are depicted as agents with the critical capacity, reflexivity, and creativity to shape social structures, yet, in turn, are shaped by structure. But the key feature for the critical realist is the capability of the individual to transform these structures and produce variable outcomes. That is, individuals are able to withstand or strategically circumvent structure, thereby minimizing its effects. Structure, for its part, is relatively enduring, although it can be modified, and deep structures have generative mechanisms going beyond the superficially observable that influence behavior. In this theoretical context, Scambler and Scambler use Marxist views on the contradictions of capitalism and the need for policy reform to theorize ways to reduce health disparities with a focus on the UK.

Fundamental Cause, Health Lifestyles, and Gender Theories

There is increasing evidence of the capability of social factors to cause health and disease, with theories in medical sociology emerging that explain the social processes and conditions involved. The basic thesis is that such factors are not just background or secondary variables when it comes to causation, but have *direct* causal effects on physical health and longevity. This relatively recent development requires a paradigm shift away from an emphasis on the study of individual attitudes and behaviors regarding health to a more balanced conceptual approach that includes a renewed focus on structural effects. Variables beyond the level of individuals and small groups in determining health outcomes are required because people can find their health and longevity directly influenced—either positively or negatively—by social structures. A comprehensive understanding of health and disease is therefore impossible without considering the role of macro-level social structures.

The seminal work on the role of social factors in disease causation in medical sociology is that of Bruce Link and Jo Phelan who are co-authors of Chap. 6. Link and Phelan (1995) maintain that social conditions are *fundamental* cause*s* of disease when social variables (1) influence multiple diseases, (2) affect these diseases through multiple pathways of risk, (3) are reproduced over time, and (4) involve access to resources that can be used to avoid the disease or minimize the consequences if it occurs. In addition to stratification variables such as class, race, and gender, stressful life events and stress-process variables like social support qualify as social factors in their view. Also included is a sense of control over one's life because people with such control typically feel good about themselves, cope with stress better, and have the capability and living situations to adopt healthy lifestyles. This situation may especially apply to people in powerful social positions than persons at the bottom of society who are less able to control their lives, have fewer resources to cope with stress, live in more unhealthy circumstances, confront powerful constraints in adopting a healthy way of life, and die earlier. In this chapter, Link and Phelan refine and extend their influential fundamental cause theory.

William Cockerham takes a similar approach in Chap. 7 which provides an updated version of his health lifestyle theory. Drawing initially on the early twentieth century work of Max Weber, the theory adopts Bourdieu's emphasis on class distinctions and his concept of habitus is accorded a major role. In this update, more attention is paid to Bourdieu's notion of "fields," while the decisive role of structure in determining health lifestyle patterns continues to be stressed. This is because lifestyles tend to cluster in particular patterns reflecting distinct differences by class, age, gender and other structural variables.The argument here is that health lifestyles are shaped from the top down by structural influences that people adopt as their own. In this scenario, structure channels health and other lifestyle practices down particular pathways instead of others that could be chosen. People still have the option to choose, but generally do so along class lines and in accordance with other structural influences that might be situationally relevant.

Whereas Chap. 7 emphasizes the importance of social class, Chap. 8, on gender theories and health by Ellen Annandale, reviews the feminist origins of gender theories, the incorporation of men's health into these theories, and notes the growing utilization of intersectionality theory in health-related gender studies. Intersectionality theory has been focused on the intersection of race, gender, sexuality, and class, and the ways in these variables simultaneously interact to disadvantage marginalized groups. The theory maintains that individual and group characteristics cannot be reduced to single variables (such as class or gender) or fully understood by prioritizing one variable over others; rather, all variables operate at the same time in the same context.

Medical Professions Medicalization, and Reflexive Modernity

An important area of study in medical sociology is the evolution of the medical profession from a position of extraordinary professional dominance and control over their work at the mid-twentieth century, to a profession whose status and power have significantly eroded at this time in history. In Chap. 9, Bernice Pescosolido examines the rise and fall of the medical profession and the theories that explained its upward and downward movement. She examines the mechanisms causing the change and poses key questions about the future. This chapter is followed by Chap. 10 in which Peter Conrad reviews and updates his theory of medicalization.

In it, Conrad talks about the various factors he considered in formulating his theory and explains why it is the way it is. Medicalization occurs when problems previously considered to be non-medical, such as hyperactivity, male baldness, and short stature, are defined and treated by the medical profession as medical problems. As trends toward the medicalization continue, Conrad's medicalization theory is growing in influence among medical sociologists.

The book also includes Chap. 11 by Brian Hinote and Jason Wasserman utilizing the work of Ulrich Beck on reflexive modernity to examine the social transformation of medicine. They suggest that discussions of the challenges facing contemporary medicine reflect an idiosyncratic vision of how the field is changing that imply problems in one or more areas may be approached in ways that are distinct from other dilemmas. Beck's conceptualization of reflexive modernization is used to organize and analyze critical developments in the contemporary medicine in ways that allow them to connect these varied phenomena in a more comprehensive fashion.

Social Capital

Lijin Song, a former student of Nan Lin, who developed one of the leading theories of social capital (Lin 2001) in medical sociology, contributes to the debate surrounding this topic in Chap. 12. She reviews the existing theories and use of the concept in health-related research, with a view toward the future. Like medicalization, social capital theory is growing in importance, not just in medical sociology, but in public health and elsewhere. Social capital is generally described in the research literature as a characteristic of social structures consisting of a network of cooperative relationships between residents of particular neighborhoods and communities that are reflected in the levels of interpersonal trust and norms of reciprocity and mutual aid. In effect, social capital refers to a supportive social atmosphere in specific places where people look out for one another and interact positively with a sense of belonging. The presence or absence of social capital has been found to be related to health outcomes and theories about are it are increasingly in demand by researchers.

Conclusion

Theory binds medical sociology to the larger discipline of sociology more extensively than any other aspect of sociological work. Theory is also what usually distinguishes research in medical sociology from socially-oriented studies in allied fields, like public health and health services research and allows it to remain unique among the health-related social and behavioral sciences. This could be considered a somewhat surprising statement because medical sociology has often been described in the past as atheoretical. It is true that much of the work in the field historically has been applied to practical problems rather than theoretical questions, but this situation has changed dramatically. The use of sociological theory is now widespread. There has been a general evolution of work in medical sociology that combines both applied and theoretical perspectives, with the utilization of theory becoming increasingly common as a framework for explaining or predicting health-related social behavior. This book represents an effort to capture some of the best theoretical thinking in medical sociology about the future.

References

Archer, M. (1995). *Realist social theory: the morphogenetic approach*. Cambridge, UK: Cambridge University Press.

Berger, P. L. & Luckmann, T. (1967). *The social construction of reality.* New York: Anchor.

Bhaskar, R. (1998). *The possibility of naturalism: a philosophical critique of the contemporary human sciences*. London: Routledge.

Bloom, S. W. (2002). *The word as scalpel: a history of medical sociology*. New York: Oxford University Press.

Blumer, H. (1969). *Symbolic interaction*. Englewood Cliffs, NJ: Prentice-Hall.

Claus, L. (1983). The growth of a sociological discipline: the development of medical sociology in Europe, vol. II. Leuven: Katholieke Universiteit

Cockerham, W. C. (2007). A Note on the fate of postmodern theory and its failure to meet the basic requirements for success in medical sociology. *social theory and health* 8:285–96.

Cockerham, W. C. (2012). Current Directions in Medical Sociology. In George Ritzer (Ed.), *The Wiley-Blackwell companion to medical Sociology* (pp. 385–401). Wiley-Blackwell: Oxford, UK.

Cockerham, W. C., & Graham, S. (2010). Medical sociology and sociological theory. In William Cockerham (Ed.), *The new blackwell companion to medical sociology* (pp. 3–26). Wiley-Blackwell: Oxford, UK.

Denzin, N. K. (1992). *Symbolic interactionism and cultural studies*. Oxford, UK: Blackwell.

Foucault, M. (1973). *Birth of the clinic*. London: Tavistock.

Foucault, M. (1979). *History of sexuality* London: Allen Lane.

Freidson, E. (1970a). *Professional medicine: a study of the sociology of applied knowledge*. New York: Dodd, Mead.

Freidson, E. (1970b). *Professional dominance*. Chicago: Aldine.

Gabe, J., Bury, M., & Elston, M.A. (2004). *Key concepts in medical sociology*. London: Sage.

Lin, N. (2001). *Social capital: a theory of social structure and action*. Cambridge, UK: Cambridge University Press.

Link, B.G. and Phelan, C.J. (1995). Social conditions as fundamental causes of disease. *Journal of Health and Social Behavior* (extra issue):80–94.

Mead, G.H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.

Parsons, T. (1951). *The Social System*. New York: Free Press.

Popper, K. (1934/1992). *The Logic of Scientific Discovery.* London: Routledge.

Ritzer, G. (2011). *Sociological theory* (8th ed.). New York: McGraw-Hill.

Ritzer, G., & Yagatich, W. (2012). Contemporary Sociological Theory. In G. Ritzer (Ed.), *The Wiley-Blackwell companion to medical sociology* (pp. 98–118). Wiley-Blackwell: Oxford, UK.

Turner, B.S. (1995). *Medical power and social knowledge* (2nd ed.). London: Sage.

Turner, B.S. (2004). *The new medical sociology: social forms of health and illness* (p. 16). London: Norton.

Chapter 2
Modern Symbolic Interaction Theory and Health

Kathy Charmaz and Linda Liska Belgrave

As sociologists we know that people are connected both to and through society. Individuals share much in the way of values and understandings of the world and their actions generally appear to be coordinated—yet human actors are more than well-socialized cogs in a machine. The symbolic interactionist perspective helps us understand relationships between the individual and the larger society as dynamic. This theoretical perspective views concepts of self, social situations, and society as accomplished through people's actions and interactions. Through its concepts and guiding assumptions, symbolic interactionism fosters theoretically-driven research with implications for medical sociology, which we address here.

In this chapter, we show how symbolic interactionism has informed theorizing in medical sociology—and beyond.[1] Symbolic interactionism is one of the least understood and most misrepresented theoretical perspectives. Hence, we include a short statement of the perspective before addressing the manner in which it informs conceptualizing the experience of illness, an area in which symbolic interactionism has played a significant role. Medical sociologists working from a micro-symbolic interactionist perspective have created inductive concepts

---

[1] We have selected several main ideas to discuss how the symbolic interactionist perspective influences theorizing in medical sociology but have not detailed its significance in areas such as stigma and social constructionism as other chapters in this volume cover these topics. We realize that the influence of symbolic interactionism in medical sociology extends far beyond the boundaries of this chapter and the borders of North America and Northern Europe although many of the ideas we discuss emanate from these regions.

K. Charmaz (✉)
Sonoma State University, Rohnert Park 94928, CA, USA
e-mail: charmaz@sonoma.edu

L. L. Belgrave
University of Miami, Coral Gables 33124, FL, USA

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_2,

including biographical disruption, loss of self, and the moral status of suffering. Such concepts illustrate the form, content, and direction of theorizing the illness experience and provide fertile ground for other researchers to develop and refine. Symbolic interactionism offers a way of looking at experience which our discussion of embodiment illustrates. We also show how medical sociologists have taken up micro approaches to study health and illness in the field of aging. Micro symbolic interactionist research can produce knowledge of meso level phenomena, particularly at the organizational level, as evident in past and present conceptions of the negotiated order and social worlds. Because many symbolic interactionists have relied on grounded theory[2] methods to guide inquiry, we conclude with a brief discussion of symbolic interaction and grounded theory as a theory-methods package (Clarke 2005; Clarke and Fujimora 1992; Clarke and Star 2008).

Symbolic interactionist theorizing in health and illness occurs within and beyond medical sociology. As our reference list attests, many relevant symbolic interactionist contributions appear in other places than medical sociology journals. Boundaries blur between symbolic interactionist research in medical sociology and general qualitative inductive research. Thus, symbolic interactionists in medical sociology have developed concepts that have informed other subfields, disciplines, and professions and, in some cases, have been further developed in them. Establishing distinct lines of theoretical development in medical sociology also poses problems. Medical sociology draws on and speaks to multiple, related theoretical perspectives, including symbolic interactionism (e.g. Crossley 2004; Haworth-Hoeppner and Maines 2005), phenomenology (e.g. Brown et al. 2011; Haddow 2005), social constructionism/medicalization (e.g. Carter 2010; Faircloth et al. 2004a; Nettleton et al. 2008), and feminist theory (e.g. Parry 2006) and researchers frequently draw on more than one tradition. Depending on the publication outlet and the author's orientation, the theoretical framework of a particular work might not be mentioned, much less discussed. For that matter, an author's background in medical sociology may not be apparent since medical sociologists work in varied settings and scholars from other fields have adopted symbolic interactionism to study health and illness. Multiple, overlapping, theoretical and disciplinary perspectives are mutually enriching and, frankly, sometimes inseparable. Medical sociologists use such perspectives to examine empirical problems ranging from health behavior (whether or not conceived of as such) to the experience of illness and the practice of health care services. Thus, we take an inclusive but not exhaustive approach here.

---

[2] Grounded theory methods consist of a set of systematic strategies for conducting qualitative research. These methods begin with inductive data that the researcher codes, analyzes, and checks to construct an abstract theoretical analysis. Grounded theory methods were designed to construct middle-range theories of empirical problems. Relatively few researchers use all grounded theory strategies and perhaps fewer have constructed theories. These methods can, however, be used to sharpen qualitative analyses and have been widely adopted. For explication of the logic and practice of using grounded theory methods see Charmaz (2006, 2008a).

Those symbolic interactionists whose studies distinctly reside within medical sociology typically direct their studies toward sociological rather than medical questions. Yet William Cockerham (2012) has rightly pointed out that the lines between a sociology *of* medicine and sociology *in* medicine overlap. Symbolic interactionists have, however, had a long history of starting research from the standpoint of sociology of medicine, although their analyses increasingly inform health professionals and patients, clients, and caregivers.

Medical sociologists from the symbolic interactionist tradition have continued, joined, and sometimes led lines of analysis in a variety of other areas within and beyond the discipline such as aging, emotions, organizations, social movements, inequality, and social studies of science, as well as having been major contributors to the development of qualitative inquiry. These medical sociologists have done more than apply a theoretical perspective originating in other disciplines or subfields. Rather, their concepts travel to other fields, although their theoretical roots in symbolic interactionism may not always be recognized.

The Symbolic Interactionist Perspective

Symbolic interactionism offers an abstract theoretical framework for viewing social realities rather than a definitive explanatory theory that specifies variables and predicts outcomes. This perspective assumes that society and collective life precede the individual and form contexts for action and interpretation. Most social scientists learn about the symbolic interactionist perspective through Blumer (1969). All that many scholars know about symbolic interactionism is Blumer's analysis of interpretation, which early critics often mistook as having an astructural bias. Symbolic interactionists do not deny the existence of social structures but argue that people construct and reproduce them. Social interaction is crucial. As Blumer (1969, p. 8) stresses, social interaction *forms* human conduct instead of being merely a means of expressing or releasing it. Interaction relies on spoken and unspoken shared language, symbols, and meanings. Hence, interaction occurs within social, cultural, and historical contexts that shape but do not determine it.

Symbolic interactionism assumes a reciprocal relationship between interpretation and action—each informs the other. In Mead's (1934) view, subjective meanings emerge from grappling with experienced interactions, are given form through language, and change when subjective or collective experience prompts reassessment. Thus, social interaction is dynamic and somewhat open-ended. Symbolic interactionists start from the assumption that human life consists of *process* and *change* rather than stability and continuity. Yet structure and process intrinsically implicate each other in a dynamic process.

Mead (1934) theorized that language is pivotal for the development of self and the conduct of social life. For Mead, self and mind develop simultaneously and depend on learning the language and symbolic meanings of one's community. Thus, consciousness is inextricably linked to possessing a self which allows us to converse with ourselves. As a result, we can act toward ourselves as we act toward others.

Symbolic interactionists distinguish between several seemingly similar concepts, such as self, self-image, self-concept, and identity. Self-images rely on our use of language to understand, categorize, and deal with experience, whether or not someone else is physically present. Self–images include fleeting reflections given in experience as noted and interpreted by the individual. Symbolic interactionists view self as an unfolding process in contrast to the self-concept. As Turner (1976) outlines, the self-concept consists of relatively stable, organized attributes, values, and judgments through which a person defines him or herself. If so, a self-concept has boundaries, content, and limits—and evaluations. Self-concepts are not neutral (Charmaz 1991). Symbolic interactionists devote much theoretical energy to these concepts because they so strongly influence action. Selves experience, suffer, and create meaning and they act.

Medical sociologists, particularly those following Erving Goffman (1959, 1961, 1963), have studied individuals' social identities and thus have attended to such concerns as creditable and discreditable identities, stigma potential, and the courtesy stigmas awarded to those closest to a stigmatized individual. Other people confer social identities on individuals and groups based on their social locations, cultural meanings, and group affiliations (Hewitt 2000). Typically social identities have profound implications for claims to a personal identity, which means the way the individual defines "a sense of location, differentiation, continuity, and direction by and in relation to the self" (Charmaz 1991, p. 269).

Symbolic interactionism views people as enacting meanings and making them real through interaction. Despite assuming that people's intended and taken-for-granted interactions construct society, situations, and selves, symbolic interactionists recognize that they seldom do so under conditions entirely of their own choosing. While acknowledging human agency, symbolic interactionists understand that society and its institutions and traditions precede and constrain individuals although how they respond to external constraints can vary. Structure exists and persists but some individuals may resist, circumvent, or ignore these constraints.

According to Blumer (1969, p. 3), the symbolic interactionist position rests upon three premises:

1. Human beings act toward things on the basis of the meanings that things have for them.
2. The meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows.
3. These meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters.

We can add two more premises (Charmaz 1980):

4. Meanings are interpreted through shared language and communication.
5. The mediation of meaning in social interaction is distinguished by a continually emerging processual nature (Mead 1934).

Blumer (1969) clarifies how symbolic interactionist views of meaning differ from common ways of attributing meaning. Rather than assume that the meaning of an object—such as an illness—emanates from this object itself, as if meaning is intrinsic to it, symbolic interactionists assume that people form meanings from what they *do* with the object. Blumer's first premise implies that meanings precede action, which over-simplifies a fundamental assumption of symbolic interactionism. People establish meanings—or *reconfirm* past meanings—through acting. Blumer also implies that social actors constantly make indications to themselves as they grapple with their situations. However, much of social life is routine. People are unlikely to change either their practices or meanings unless their situations have become problematic and their habitual responses no longer work or unanticipated situations arise (Charmaz 1980; Snow 2002). If others question a person's meanings or actions, such as by suggesting that this individual feigns symptoms, then this person may change these meanings and actions.

We understand situations through defining and naming them. As Strauss (1959) pointed out, naming constitutes a way of knowing, categorizing, locating, evaluating, and dealing with an object, event, individual, or group. Naming intrinsically involves boundary-setting and outlines one's relationship to what is named. Names are seldom neutral. Naming a phenomenon evokes or ensures evaluating it while renaming involves changing one's relationship to this phenomenon. Renaming clumsiness to lack of proprioception after being diagnosed with multiple sclerosis recasts its meaning, revises actions, predicts social identity, and casts shadows on the future.

Blumer's emphasis on interpretation relies heavily on communication processes. An alternative lies in the dramaturgical approach, which looks at *action* first, and then infers meaning from action. By invoking the metaphor of the drama, we see aspects of reality that might otherwise not be brought into view. Dramaturgy also draws attention to the temporal and spatial dimensions of the scene as well as the social staging of action. Scenes, actors, roles, performances, and audiences all contribute to dramaturgical analysis and concepts of self-presentation and impression management indicate how actors play their roles and what kind of performance they give. To the extent that we integrate dramaturgical analysis with more interpretive approaches, we can construct theory that is both fluid and reflective of the studied experience.

Studying the Illness Experience

The symbolic interactionist perspective leads to studying self-construction, interaction, actions, and meanings in the empirical world. To the extent possible, symbolic interactionists start inquiry from the experiencing person or collectivity's standpoints and understandings. Early symbolic interactionist studies of the experience of illness made in medical sociology purported to bring an "insider's view" into purview because their authors emphasized concrete realities rather than borrowed abstract concepts (Conrad 1987, p. 2). Today, researchers would not claim that their analyses speak for or fully represent research participants' experience or views. We try to get close to the illness experience, and some of us may share aspects of it, but the research frame limits as well as extends our views—and therefore the form and content of our theorizing. Most researchers use single in-depth interviews to conduct their studies of the illness experience. Thus they gain insights from their research participants' stories and reflections but seldom witness their actions or silences. Taken collectively, however, symbolic interactionist studies make significant statements about experience and offer directions for theorizing.

Establishing Lines of Inquiry

Symbolic interactionists have attempted to portray what people with chronic illnesses experience, how they experience it, which actions they take toward their situations, how they understand their experiences, and when their understandings shift or change. The symbolic interactionist perspective also alerts researchers to study varied—and sometimes conflicting—definitions of the situation among actors and groups within a setting or social world, an approach that began in the early days of medical sociology and still continues (see, for example, Freidson 1961; Roth 1963; Nack 2008; Shriver and Waskul 2006). Many symbolic interactionist studies have used grounded theory methods to explore, describe, and theorize life with chronic illness.

Lines of inquiry have generated new conceptual directions, as have areas of focus. What began as descriptions of the illness experience became theoretical conceptions of experience. Making the ill person's experience the central focus moved symbolic interactionists out of hospitals and into homes, away from patients' roles and into people's problematic lives. Early concepts about stigma (Goffman 1963), awareness, and uncertainty (Glaser and Strauss 1965, 1968) formed the backdrop of initial and contemporary studies of experiencing chronic illness (Charmaz 2008b; Charmaz and Rosenfeld 2010; Foote-Ardah 2003; Nack 2008; Strauss and Glaser 1975)**,** but the early analyses remained descriptive. These studies described how people lived with chronic illness and thus addressed regimen management, dealing with uncertainty, and, following Goffman (1959, 1961, 1963), their efforts to control how others viewed them and avoided stigma. Strauss and Glaser (1975) and their colleagues depicted the kinds of work and considerable time involved in managing chronic illness at home, which numerous authors still explore and in the study of how chronically ill people engage in restructuring their lives, emphasis has increasingly turned toward analyzing biographies (see, for example, Charmaz 1991; Corbin and Strauss 1984; Corbin 1987, 1988; Faircloth et al. 2004a; Hubbard and Kearney 2010).

Each of these developments brought questions about self and identity into view—and simultaneously altered views of people with chronic illness. Managing illness and care commonly poses knotty concrete problems as Strauss and Glaser's volume documents. Dealing with these problems developed two lines of analysis: (1) substantive analyses of the work that ill people and their caregivers perform and (2) subsequent theoretical statements about the reconstruction of self, as Bury (1982), Charmaz (1983, 1987, 1991, 2011), and Galvin (2005) 'among many other' show. Concepts derived from a symbolic interactionist perspective, particularly those developed through grounded theory methods invite development and refinement.

Theorizing the Illness Experience

Bury's (1982) concept of biographical disruption constituted a direct attempt to theorize how chronic illness affected people's lives. This disruption involves undermining or decimating the person's taken-for-granted assumptions about their concept of self, their health, and the conduct of their life; it entails reevaluating the person's biography and self-image, and marshaling resources to deal with changes stemming from the illness. Bury's (1982, p. 169–170) concept takes into account age, time, uncertainty, and issues of legitimacy.

Scholars (e.g., Lawton 2003; Pierret 2003) often link Bury's concept of biographical disruption with Charmaz's (1983) early concept of loss of self, which she ties explicitly to suffering. Charmaz defines loss of self as experiencing one's "former self-images crumbling away without the simultaneous development of equally valued new ones [self-images]" (Charmaz 1983, p. 168). Ghaziani (2004, p. 282) interviewed a man who said, "One of the down sides of having your job be really important to you is that when it's gone, you also lose a big piece of yourself. And it's a long process to sort out who you are. I think it's one of the biggest disability issues-'Who am I without a job?'" Over time, such losses erode the person's self-concept as well as narrowing the sources of identity construction. Taken together, the concepts of biographical disruption and loss of self provide an analytic handle on crucial aspects of experiencing illness. Both concepts bring self, identity, and time into the conceptual foreground and have given numerous researchers sources of comparison and debate as well as of application (see, for example, Pierret 2003; Sandstrom 1990, 1998).

The concept of loss of self captured numerous researchers' attention (Pierret 2003) although analyses of discoveries and transformation of self did not (Charmaz 1991, 1994a, 1994b). Some researchers who endeavor to study self and identity in chronic illness make explicit use of Mead's (1934) framework to sensitize themselves to look for the effects of illness. For example, Adams, Pill, and Jones (1997) adopted Mead's analysis of the self. They agree about the potential of loss of self but contend that it "will only occur in our respondents if an individual cannot reconcile the social identity of 'asthmatic' (this particular 'me') with their other social identities which, in turn, are irrevocably inter-connected with their personal identities or sense of self" (Adam et al. 1997, p. 198).

Analytic questions about awareness, timing, and action flow from a symbolic interactionist perspective. As Bury (1982) contends, a diagnosis may initiate or confirm biographical disruption. Charmaz (1991) refines the concept because she documents that people may also define a diagnosis or medical crisis as temporarily interrupting life, perhaps requiring a time-out, rather than marking a permanent change. She also shows that people experience chronic illness as intrusive or find themselves immersed in it as well as disrupted. Charmaz demonstrates temporality in multiple ways, as some people learn that they have an illness long before they receive a diagnosis and others long after. Diseases may be contested while illnesses may be present—and discounted for lengthy periods of time. Having no diagnosis at all 'or a questionable one' undermines a person's credibility to self as well as others, as this woman describes:

> Most people out there don't believe that it [chronic fatigue syndrome/environmental illness] exists, you don't look sick so no one is going to believe that I'm sick, and so it became surreal…. It became this kind of battle trying to remind myself that, Yeah, I really am sick, and then, but also [I'm] trying to meet other people's expectations. They expected me to be healthy and so I would push to do things that I didn't feel up to doing, and so in consequence I basically made myself sicker and sicker and sicker. (Charmaz 2008, p. 8)

People whose self-concepts are predicated on being healthy and active often insist on defining their conditions as temporary until long after health professionals dismiss their views and actions as unrealistic, or even as impairing their health. Learning about ill people's past biographies and current situations from *their* standpoints can explain their present actions. Both definitions of illness as temporary or chronic result in reconstructing the past in light of present events. In keeping with Mead's (1932) analysis of the past, Charmaz (1991) shows that the reconstructed past is a past of a particular present and Lombardo (2004, p. 539) argues that his "worried well" informants "symbolically reconstructed their pasts in order to make sense of their present beliefs in being HIV-positive".

Bury recognizes that biographical timing of illness influences the extent of its defined disruptiveness and like others finds defining loss varies with age (see, for example, Sanders et al. 2002). Moreover, using self, identity, and time as sensitizing concepts, fosters attending to the aftermath of biographical disruption, which is seldom a single event for chronically ill people. People form implicit or explicit identity goals that congeal into an identity hierarchy (Charmaz 1987, 1995). Where they locate themselves on this hierarchy depends on their age, situations, and experience with illness. The levels of the identity hierarchy include the supernormal social identity, the restored self, a contingent personal identity, and a salvaged self, all of which allowed people claims to avoid being what they saw as invalid. A successful surgery or new medication allowed some people to move up identity levels, but over years many people plummeted down the hierarchy, as further crises accrued and with these events, their preferred identities crumbled.

Concrete empirical study in multiple settings refines the concept of biographical disruption. Heather McKenzie and Mira Crouch (2004) agree that the diagnosis of cancer constitutes a critical situation consistent with Bury's concept. But they point out that unlike people with chronic illnesses, many people who have had cancer do not feel sick. Instead, they feel enormous uncertainty and fear of illness and death, but suffer from others disallowing expression of these feelings. Thus, these authors identify lasting uncertainty without experienced illness as a condition under which biographical disruption arises. As we explore below in greater detail, experiencing disturbing bodily cues induces action. Cynthia Mathieson and Henderikus Stam's (1995) narrative analysis pinpointed tacit forewarnings among cancer patients of biographical disruption and identity changes: bodily cues and troubled interactions with medical workers. These signs prompted changed narratives of self and elicited a renegotiation of identity.

Earlier marginalization, crises, and problematic lives affect the extent to which illness is a disruption. Illness may frame a way of life but it occurs within a life. What happened before illness counts. Desirée Ciambrone (2001, p. 517) finds that women with HIV/AIDS experienced an initial disruption but in hindsight saw it as causing them less disruption than violence, separation from children, and drug use. Daniéle Carricaburu and Janine Pierret (1995) find serious chronic illness may mean "biographical reinforcement" rather than a disruption among marginalized people. Pierret (2007) further refines the concept of biographical disruption. She found that people who had chaotic lives became passive, withdrawn, and unable to cope when they were diagnosed with HIV or AIDS. These people's identities changed when they gained the respectable label of "patients" due to French social policy. They gained stability because as patients, they could receive sufficient welfare benefits to live. Subsequently, their meanings of illness, self, and disruption changed. Pierret not only shows how people receive biographical reinforcement while ill but also makes important connections between meanings of subjective experience and structural conditions.

Symbolic interactionists scrutinize their studied empirical worlds and the assumptions on which their concepts rest. Under certain conditions, acknowledging disruption may be disallowed. Sinding and Wiernikowski (2008, p. 289) find that "broad cultural and moral discourses, patterns of social interaction and structures of power combine to foreclose older women's accounts of disruption". Studies of biographical disruption assume "good" health until illness occurs. Lowton and Gabe (2003) turn from disruption and illness to the converse: continuity of illness and health as they explore what *health* means to people who have been diagnosed as chronically *ill* since early infancy. Their study nicely brings continuity in the life of the chronically ill individual into focus and provides a strong counterpoint to the concept of disruption. Nonetheless, the concept of biographical disruption has applications beyond the sick person. Karner and Bobbit-Zeher (2005) show that it can be usefully applied to caregivers as well as sufferers.

Disruption, intrusive illness, and immersion in illness all lead to marginalization, and loss of self contributes to it. But what is marginalization? Everyone knows what marginalization is but, few researchers define it. Symbolic interactionists would look at how marginalizing processes are enacted and given meaning and grounded theorists would define an extant concept by its empirical indicators and identify its properties, if the concept earned its way into the analysis. Thus, Charmaz (2008, p. 9) compared accounts in her data and arrived at this definition:

"Marginalization means boundaries or barriers, distance or separation, and division or difference. Disconnection, devaluation, discrimination, and deprivation exemplify experiences of marginalization". Marginalization is both psychological and social; it assumes structure. Beyond the obvious observation that marginalized people and groups hold problematic statuses in society, Charmaz contends that marginalization assumes the following: (1) some identifiable social entity constitutes a core, a center; (2) implicit or explicit measures locate certain people as part of this core; (3) these measures separate or distance other people from the core; and (4) marginalizing processes are inherently comparative.

The stories of people with visible disabilities tell tales of experiencing marginalization. Anthropologist Murphy (1987) and sociologist Robillard (1999) each became paralyzed and used wheelchairs. Each man discovered that his colleagues avoided or ignored him, which resulted in his growing isolation and uneasy feelings. One of Galvin's (2005, p. 397) interviewees who used a wheelchair said:

> … being rejected is the biggest part. I don't like that feeling. I mean, no one would like the feeling of being rejected, but having a disability, that rejection seems to be… it's all of you. They are not just rejecting something you might have said or done. It's because they're rejecting you… it always comes back to you being different because you have a disability.

Social acts of marginalization not only result in psychological suffering but also confer a moral status on the individual *for* suffering. This status takes relative health into account yet spreads beyond it. When suffering is deemed legitimate, others grant an ill person moral rights and entitlements that, in turn, allow this individual to make moral claims. Here, moral judgments view the person as deserving, dependent, and in need. Definitions of legitimacy can elevate an individual's moral standing and even confer a sacred moral status—for a while. Through comparing numerous accounts, Charmaz (1999, p. 368) discerned an "implicit hierarchy of moral status in suffering". Over time, the ill person's moral claims and moral status become contested, particularly when people define this person's claims and physical and/or mental condition as troublesome. Subsequently, the person tumbles down the hierarchy of moral status in suffering.

Understanding Embodied Selves in Health and Illness

By offering a general frame for looking at empirical realities, symbolic interactionism leads researchers to ask certain kinds of questions and to forge certain kinds of questions. In the studies of the illness experience questions arise about the effects of having an altered body on chronically ill people. Hence, connections between embodiment, self, and identity not only follow but also bring researchers to wider issues concerning health as well as illness. We focus on embodiment to portray how symbolic interactionists have conceptualized it and to recognize its crucial place in qualitative studies of illness—and health.

Recent growth in explicit medical sociological attention to embodiment leads one to scratch one's head and ask, why wasn't the body always a focus of our field? (e.g. Walsh 2010; Waskul and Vannini 2006; Williams 2003). Bodies have been present in our work, of course, but too often relegated to the background. Williams (2003, p. 1) argues that medical sociology includes a "secret history of the body". Today, however, embodiment is an explicit focus among those using symbolic interactionist and related interpretive perspectives.

In their review, Waskul and Vannini (2006) identify five bodies of symbolic interactionism: the looking-glass body, the dramaturgical body, the phenomenological body, the socio-semiotic body, and the narrative body, all of which deal with meaning and/or reflexivity. Although symbolic interactionists use these various bodies to examine quite divergent health/illness issues, the bulk, though not all, of the sociology of the body deals in one way or another with self and identity, with issues concerning *control* and *visibility* as pivotal parts of the mix. Given space limitations, we focus on only a few substantive areas with clear relevance for medical sociology and beyond, but encourage the reader to explore further. Numerous examples below have clear implications for practice, suggesting that grounded theory research would be valuable in further pursuing those topics because it generates relevant findings for practice as well as for theory.

Authors often use embodiment to examine *self and/or identity*, topics fundamental to symbolic interactionist theory, explicitly and directly. For instance, Charmaz (1995) examines the adaptation to repeated changes in body-self unity in chronic illness. She explores substantive questions including: How do people with chronic illnesses respond to bodily changes? What meanings do they attribute to such changes? How do their meanings and actions change over time? She suggests that people adapt to their altered bodies, albeit this adaptation may be forced by the physical constraints they now have. The process of adapting to illness begins with the experience of an altered body, even a sense of bodily betrayal. Chronically ill people objectify their bodies (or the now problematic part) until they come to work *with* it, rather than *against* it. Bodily changes can lead to changes in their identity goals, a theoretical direction that Hubbard et al. (2010) continue. Adaptation to one's altered body involves tradeoffs, whereby ill people sacrifice some identity goals in order to hang on to others. Finally, surrendering to the sick body, giving up the quest for *control,* is an active process, one that brings a new unity of body and self. Symbolic interactionism guides the understanding of the process of adaptation, the interaction between self and body, explicated in this work.

Using the looking-glass self approach, Charmaz and Rosenfield (2006) examine the intrusion of chronic illness in both mundane and ritual occasions, pointing out that people with disabilities are even more self-conscious than Goffman's ordinary strategic actors. Consider this woman's statement about other people's response to her difficulty in walking:

> I just feel real self-conscious when I'm downtown and people look at me, you know, like women or something, or they notice the way I'm not walking correctly or whatever. And it really bothers me. It's almost like it brings me up short or something….I don't know what

> they're thinking or anything, but I can see that they perceive something different about me because they're looking, and I get annoyed.(Charmaz and Rosenfeld 2006, p. 35)

The *control* of visibility turns out to be a double-edged sword in identity management. Although visible health problems might threaten claims to competent identities, invisible problems call into question the legitimacy of requests for help.

Haworth-Hoeppner and Maines (2005) examine persistent invalidated anorexic identities and take a new look at a classic mismatch between self-identity and identity as seen by others. These researchers discover a divergence contrary to the successful reflexivity that symbolic interactionists often find. As anticipated, diet and exercise take center stage of sufferers' lives and growing ever thinner does increase their sense of self-worth. Yet traditional identity theory does not explain the persistence of invalidated identities. Sufferers cling to identity-claims of size (as huge, big, etc.), although other people typically counter these claims. Symbolic interaction theory points us to examining such seeming mismatches between theory and reality. Work like this helps advance theory, by specifying *conditions* that modify reflexivity.

Size is embodied not only by those with anorexia, of course, but also by those who are large, those living obesity. In their efforts to get at the embodiment and experience of largeness, Warin et al. (2008) quickly learned that to talk food and bodies within families is to talk motherhood and femininity. Identity, motherhood, and body are all connected. For the poor, who have experienced food insecurity, food symbolizes nurturing and is central to identity. For more affluent women, paid employment might be central to identity, but putting the family before one's self is still key, so that cooking comes before exercise. Essentially, women's embodied histories and practices of motherhood set the context for their relationships to food; medicalizing obesity and messaging for healthy lifestyles miss this boat (Warin et al. 2008).

Some (potential) disruptions come from *practices of the body*, as in the case of injury that strikes at the core of identity. The first example examines the "set up" for loss of self, while the second illustrates the process. Turner and Wainwright (2003) use the case of the injured ballet dancer to integrate embodiment and the construction of the body as a cultural object. Injuries are an expected part of the ballet career. Pain, like anorexia, comes with dance, but injury, real injury, destroys a dancer's embodiment. Because "(p)rofessional ballet is not just something you *do*—it is something you *are*… being a ballet dancer is an embodiment of identity" (Turner and Wainright 2003, p. 284–285).

Injury and pain also constitute sport. In a case study of an amateur rugby player, Smith and Sparkes (2008) examine aftermath of spinal cord injury (SCI). Parallel to the dancers discussed above, for Jamie, "my life was sport" (Smith and Sparkes 2008, p. 221). Initially following SCI the dominant narrative of restitution has Jamie telling, and seeing, his disability as temporary. Jamie looks forward to being once again able-bodied even though he can feel nothing below the neck. Jamie is a case example of what Charmaz (1991) has theorized as having a self-concept that lags behind experience. With no improvement, Jamie moves into a state of chaos, in which he has no narrative order and only a desolate future. Finally, as he faces social-structural barriers and internalizes others' definitions of who he now is, he sees his story as being over. Jamie is overwhelmed by pain and impairment, the raw materials of his embodied disability. Thus, examining injury through the lens of embodiment helps us to integrate the social and physical sides of impairment, to better understand the meaningful interaction of self and body.

Studies of situations in which "embodied experience is front and center" (Faircloth et al. 2004b, p. 83) yield insights into dualism. Faircloth et al. (2004b) looked at the practical mechanisms used by stroke survivors to manage their newly limited bodies. Some see the body as a whole, rather than focusing on parts that don't work. Others see the body as a foreign object that just will not listen to what their mind tells it to do or, alternatively, an active body that pushes the mind. Thus, while disrupted biography is part of the story, the stroke experience centers more on dualism.

In childbearing, the central issue is that of *control* (Carter 2010), with dualism vital to the story. This unique situation challenges symbolic interactionist theory's focus on self and the agency of the human actor, herself. Childbearing bodies are only rarely controlled and once in labor, the loss of control can extend to the self. Some bodies are autonomous, active, while others are accommodating to the needs of the self. Still other body/self relationships involve collaboration between bodies and selves that are both active agents. This point extends symbolic interactionism to recognizing that in some circumstances corporal bodies supersede the agency of symbolic selves.

Embodied knowledge has been examined at both the lay and professional levels. As more and more pregnant women are pushed into prenatal screening, with those deemed "high risk" encouraged to undergo amniocentesis, the relative power and authority of medical/scientific knowledge versus womens' experiential/embodied knowledge becomes a key issue. Markens et al. (2010) examined agency and decision-making among Mexican-origin women, finding that those who distrust medical/scientific knowledge or, at least, do not have blind faith in medicine, rely on their embodied knowledge of how their babies are doing. Those who trust medicine, find the arguments in favor of amniocentesis logical, and who express less certainty in their embodied knowledge are more likely to accept the test. The agency of these women, as they weighed various knowledge sources to make their own decisions is noteworthy, given their relative vulnerability. Work such as this demands the extension of symbolic interactionist work beyond the micro level, to deal with issues of differing status and power in the larger social system, as Nettleton et al.'s (2008) narrative analysis also confirms. Using embodiment perspectives can help symbolic interactionists understand how larger social structural actions play out at a level that is both more micro and far-reaching.

Taking an embodiment approach is not without risk. When examining the arena of childbirth with an eye toward *integration of perspectives*, Walsh (2010) notes that various approaches to embodiment, including phenomenology, feminist thought, the socially-constructed body, and more, lead to different foci and takes on childbirth and carry different shortcomings. For instance, a focus on discourse, a la Foucault, can lose the carnal nature of the body, whereas attention to the "natural body" can lead to essentialism. One result of this diversity has been dichotomized thinking regarding natural and medical childbirth, bringing distress for laboring women caught between the two sides.

Embodied analyses call into question some of our cherished approaches. Researchers need not discard these, but need to acknowledge their limitations, in order to elaborate them and expand their usefulness. For instance, Williams (2003) warns that when we become too caught up in the social construction of disease, we leave bodies behind. He contends that we do not so much overcome reductionism as invert it, ignoring the successes of medicine. Symbolic interactionism, in concert with related, interpretive theoretical approaches, might be particularly suited to address how bodies are "lived, experienced, and expressed in sickness and in health" and the role of emotions in linking "biology and society, structure and agency, the public and the private" (Williams 2003, p. 1). Certainly symbolic interactionist theory points us toward interrogating the relationship between body and self, a key relationship for understanding health actions. In combination with a grounded theory approach to research, symbolic interactionism can be key for designing useful interventions.

Glimpsing Selves in a Medicalized Old Age

Some might find it odd to see a section on aging included in a discussion of using theory in medical sociology. After all, aging and old age are neither diseases nor health states. Others will find it "natural" to see such a section, since growing old is "clearly" associated with increasing health problems. Symbolic interactionism is valuable for examining questions of aging and health ranging from the meaning of health and illness in old age to matters especially associated with old age, such as experiences of dementia or caregiving. This perspective can sensitize us to the downside of medicalization, the consequences of redefining phenomena of everyday life in medical terms, while acknowledging attendant benefits.

Criticisms of medicalization include Irving Zola's (1972) classic concern over medicine as a form of social control and later attention to the potential over-reach of the medical model Irving Zola's (1991). More recently, Gabe (2005) has attended to potential benefits of medicalization and expressed concern that the drawbacks have been overstated). Certainly clinical reductionism has yielded treatments that relieve very real suffering. Symbolically, we have long recognized that labels for troubling bodily signs that evade diagnosis can bring reassurance and help organize experience, even when the labels are quite serious, such as those related to multiple sclerosis or lupus erthymatosus (e.g. Davis 1973; Stockl 2007). Work in a symbolic interactionist perspective continues this tradition of interest in the consequences—both positive and negative—of having the meanings of elders' lives interpreted through medical lens.

Holstein and Gubrium (2007) distinguish what they see as two distinct social constructionist perspectives, one grounded in symbolic interactionism and the other more influenced by ethnomethodology. They state that those using symbolic interactionism seek to understand the construction of the meaning of experiences. They see those pursuing the "more radical" ethnomethodological approach as bracketing the meaning of the experience to focus on the construction and use of the tacit understandings and structures that underlie that experience. Thus, Holstein and Gubrium believe that a symbolic interactionist would be interested in the construction of meanings of experiences of health and illness, but leave out the symbolic interactionist emphasis on action, which addresses how actions reveal and construct tacit understandings and structures. These approaches are inherently connected and both are relevant to symbolic interactionist work on aging, health, and illness.

Medicalization of/in Old Age: Constraint and Resource

Epidemiologically speaking, indeed, age and illness are associated, primarily due to chronic illness. However, defining old age in terms of health/illness, with an inability to separate the two, symbolizes the strong medicalization of aging, no doubt largely influenced by the dominance of the "successful aging" framework in social gerontology (Belgrave and Sayed, forthcoming). This framework pushes aside critical perspectives based on class, race, and gender power structures (Estes et al. 2003; Holstein and Minkler 2003). Medicalization of old age is so strong that even critiques of equating old age with any particular health status contain implicit assumptions about the relationship. For instance, Jones and Higgs (2010) analyze natural, normal, and normative assumptions about aging, in the context of contemporary consumer society. They argue that we should attend to the lived experience of those who accept or reject these contested domains or are unable to do so, yet still refer to aging as an "important field of health" (p. 1513). The fact that we do not refer to youth or even infancy as a field of health alerts us to taken-for-granted acceptance of the medicalization of old age. Symbolic interaction theory can push us to let go of such unintended assumptions in order to focus on the meaning of health in old age for those living it. In fact, with this approach we see that meanings in old age are varied, that they can liberate or constrain.

The medicalized view of aging, the tendency to see old age in health/illness terms is hardly limited to gerontological researchers and practitioners. Life is increasingly "the business of bureaucracies and agencies" that become "primary sources of meaning for most aspects of our lives" (Holstein and Gubrium 2007, p. 348). Subsequently, medicalized definitions of aging become common resources for constructing meanings of and in later life. Multiple findings of expectations of bodily deterioration with aging reflects reliance on medicalized definitions. People can draw on such expectations to construct continuity in the face of illness-related disruption (Hinjosa et al. 2008). However, the growing influence of the "successful aging" framework brings with it demands that we assume personal responsibility for aging in good health, no matter our ability to do so. Holstein and Minkler (2003) remind us that cultural norms matter, influencing selves even when they are resisted. The potential damage done by this framework to aging selves has to be recognized and challenged. Symbolic interactionism provides the intellectual tools to confront this unintended consequence of "successful aging" and weigh it with the positive value of encouraging elders' agency in holding on to their health.

Moreover, "although well-constructed scientific experiments can provide much needed information about what we must do (if we are able) to have a relatively healthy old age, it cannot tell us what makes that life a good one" (Holstein and Minkler 2003, p. 790). Yet positive identities and continuous selves can be accomplished in the face of health problems (Phoenix and Sparkes 2009). Actors' abilities to draw on their creativity to do so cuts across ailments such as pain (Encandela 1997), stroke (Hinojosa et al. 2008), and other ailments. However, they exercise this creativity within larger interpretive contexts, which can either encourage alternatives to defining oneself as limited or constrain such creative definitions. Encandela (1997) found that elders living with chronic pain in continuing care retirement communities that encouraged active lives found ways to remain on the go and conceal their pain. Those who failed to live up to these expectations became the source of gossip. However, in these same facilities, the meaning of needing skilled nursing care constrained patients who required it more than collective definitions of pain. Elders can invoke cultural beliefs about aging to normalize bodily changes and thus maintain a sense of continuity of self in the face of loss of function following stroke (Hinojosa et al. 2008). In effect, elders use both disruption and continuity as sources of self-construction, so that even when experiencing despair over new limitations, one could maintain "that on the whole, in the realms of self-perception, the meaning of life, and future outlook, one continues to be the same person" (p. 211). This ability might explain, at least in part, the acceptance of bodily limitations following stroke or other serious health problem (Faircloth et al. 2004b).

Regardless of one's maintenance of a positive, continuous self/identity, serious illness does present problems that must be managed. For instance, the health care system often must be navigated in some fashion. Styles of negotiating treatment and care vary by hospital patients' adaptation—or resistance to being subordinated to health care providers (Löfmark and Hammarström 2005). Stroke survivors might use and listen to their bodies to understand what has happened to them and what it means (Faircloth et al. 2004b). Studies of pain in old age highlight the importance of the meaning of bodily conditions, an approach typical of symbolic interactionist theory. For instance, Miles et al. (2005) found that pain itself is less important for coping efforts than the bodily, activity, and identity constraints caused by that pain.

Learning from Dementia

Issues of meaning, continuity, and maintaining a positive image of self become more poignant when we turn to the experience of dementia. Alzheimer's disease/dementia provides a surprisingly valuable laboratory for examination of core principles of symbolic interaction theory while the theory guides us to a much more sensitive understanding of experiences and lives of sufferers and their caregivers.

Health professionals, social scientists, and ordinary people see dementia/ Alzheimer's as qualitatively different from other ailments. This condition challenges our sociological understandings not only of the experience of illness but, moreover, of relationships and selves as well. As such, studies of dementia are especially well-poised to contribute to interactionist theory in medical sociology and beyond. At the most obvious level, dementia/Alzheimer's is distinct in that it combines "fear of losing one's mind" with medicalized notions of inevitable, irreversible decline in a condition that is unique to old age. Although early-onset dementias occur, they are left out of the cultural picture of the condition. Dementia/Alzhiemer's conditions are also distinct in that care also might be given in the home or in a long-term care institution.

Dementia disrupts two lives—the sufferer and the informal caregiver. Symbolic interactionism alerts us to the possibilities that this disruption changes relationships within this dyad, with the potential for altered selves. Disruptions directly impact caregivers because they have the responsibility of dealing with the changed circumstances and making whatever pragmatic adjustments are needed (Belgrave et al. 2004; Karner and Bobbitt-Zeher 2005). When the relationship is spousal, the potential impact for intimacy is enormous and gendered in nature (Hayes et al. 2009). Emotional intimacy hinges on communication, which can be lost, so that physical intimacy is challenged, especially for women caregivers. Moreover, if the wife's role becomes one of "mothering," the conflict with sexual intimacy is profound. Changed relationships, as one person becomes a caregiver, imply changed selves for both parties (Karner and Bobbitt-Zeher 2005), at least potentially. Relationships remain paramount, at least early on, as dementia/Alzheimer's sufferers rely on supportive others to help maintain their sense of leading meaningful lives (MacRae 2010). With such confirmation available, sufferers can define their essential selves as unchanged and continuous, despite their condition. Whether or not these supportive others are fully open with the sufferer (Blum 1994), they play key roles in defining day-today situations. In effect, the extreme example of dementia/Alzheimer's dramatically highlights the place of social interaction in constructing meaning.

Symbolic interaction theory, with its focus on interaction, subjective meaning, and self, points us to examine loss of self within the specific context under study, rather than to assume universality. The potential loss of self with dementia/ Alzheimer's is less straightforward, perhaps, than with other conditions. Contrary to expectation, dementia/Alzheimer's sufferers do not necessarily experience or fear a loss of self (MacRae 2010), although the caregiver might (Karner and Bobitt-Zeher 2005), particularly when he or she is the sufferer's spouse (Hayes et al. 2009). Caregivers find that they have lost their "old" loved one and, hence, the familiar relationship they once had. Some sufferers, even in the face of their ailment, use their agency to construct valued selves, disputing caregivers' definitions and normalizing their conditions (Belgrave et al., 2004; MacRae 2010). Others are silenced while caregivers construct new meanings of their selves (Karner and Bobbitt-Zeher 2005). The divergence between sufferer and caregiver in definitions of the sufferer's self could be connected to their disparities in responsibilities and standpoints and/or the relative advancement of the condition in different studies.

Despite medicalization of dementia/Alzheimer's, neither caregivers nor sufferers, even those in long-term care facilities, define this condition in medical terms. In the home setting, sufferers and caregivers alike may experience dementia/Alzheimer's as medicalized, but not necessarily an illness at all (Belgrave et al. 2004). Though caregivers and sufferers might differ on constructions of sufferers' selves and in their use of medicalized explanations, both draw on common, cultural stocks of knowledge as well as their joint lived experiences to define these selves (Belgrave et al. 2004; Karner and Bobbitt-Zeher 2005; MacRae 2010).

Elders negotiate selves, conditions, and even models of dementia/Alzheimer's in long-term care settings, where one would expect the medical model to dominate. Residents of such facilities actively define their own and others' behavior and situation, despite limited awareness of the severity of their losses. However, their definitions might not match those of staff or researchers (Clare et al. 2008). Staff, primarily CNAs, when given the freedom to do so, draw on their deep respect for the selves of residents, the residents' own contributions to the meaning of the unit, and their experience of the residents' own world(s) to construct a decidedly non-medical model (Vittoria 1999). This model modifies, even rejects, basics of, the medical stage model. These staff change "the referent, from the disease or biological symptoms to the person of the resident" and the context, from the medical model to the "lived context" of the unit (Vittoria 1999, p. 369). And they do much of this through non-symbolic interaction with residents, whose language abilities are so limited.

We see that medicalization *in* old age is a complex phenomenon, carrying the potential for either benefit or harm. For instance, medicalization can provide a way to normalize experiences that might otherwise diminish the self. However, there appears to be no upside to medicalization *of* old age. Medicalizing elders, as a social category, individualizes responsibility for health, cuts off critical discourse, and potentially influences the selves and experiences of elders, even as they struggle to maintain a holistic, full self.

Moving Symbolic Interactionism Beyond Microsociology

Symbolic interactionism need not remain solely a micro perspective; it can inform studies of health care policies and organizations. What begins as inductive micro explorations can end with moving beyond microsociology. The symbolic interactionist perspective has long contained the elements for developing dynamic inductive meso and macro analyses that often start with micro research, such as Horowitz's (2011) study of medical licensing boards, but lead to general principles and useful concepts. Taking action as the unit of analysis and of theoretical development leads symbolic interactionists into organizational, social movement, and other forms of collective analysis.

Many of symbolic interactionist conceptual contributions build on researchers' prior interests and lines of research, although these contributions may take on a life of their own. Strauss's (1984, 1993; Strauss et al. 1963; Strauss et al. 1985) dual concern with the theoretical study of action and the substantive study of work is a case in point. The sociology of work animated many of Anselm Strauss's (Star 1991; Strauss 1984; Strauss et al. 1963, 1985) organizational analyses but these studies consistently addressed the actions that constituted the work. Like his empirical analysis of segmentation, over time Strauss's concepts segmented into separate lines of inquiry and spread across fields as other scholars engaged and developed them (see, for example, Casper 1998a, 1998b; Clarke 1998; Clarke and Star 2008; Star 1989; Star and Griesemer 1989; Wiener 1991; 2000).

Conceptualizing a Negotiated Order

Strauss et al.'s (1963) portrayal of the hospital as a "negotiated order" is one prominent example of a concept that moves symbolic interactionism beyond microsociology. This concept assumes that people construct and reconstruct the division of labor in organizations and accomplish organizational work through interaction processes. It addresses how order and change occur simultaneously—and depends on an analysis of action. Nadai and Maeder (2007) contend that the negotiated order approach offers a useful theoretical tool for "connecting different levels of analysis and linking interactions to organizations and overarching societal structures".

The concept of negotiated order takes into account informal sentiments, actions, and alignments as well as formal hierarchies, communications, and the content and distribution of work. The concept answers the question: How are these aspects of organizational life played out in action and interaction? These interaction processes are dialectical in that Strauss et al. (1963) argue that informal aspects of organizational life can influence formal structure in addition to the converse. Strauss rightly contended that scholars had reified structure to the exclusion of addressing process. In his later book, Strauss (1978a, b) explicitly states that negotiations occur within situations that have their own structural properties. He argues here that researchers must recognize which structural conditions impinge on the studied negotiations and specify how they do so. Certainly some groups seek to exercise their power to ensure that other groups have no power to negotiate their definitions of the situation, much less to obtain more symbolic and material resources.

Strauss (1987, 1993) brought temporality, flexibility, and mutability into purview in his concept of negotiated order—all within a focus on action. It focuses on movement—shifting commitments, changing organizational environments, fluctuating organizational relationships and continued fluid discussions, compromises, concessions, and resolutions. This concept also leads to looking at processes that otherwise may remain invisible, such as the requisite background work needed to accomplish over organizational goals and activities. When do explicit negotiations arise? Disagreements, ambiguity, uncertainty, and changed conditions encourage negotiations to arise (Maines and Charlton 1985) and often permit previously silenced voices to speak. For Strauss et al. (1963) the concept of the negotiated order corrected organizational theory and studies that assumed and over-emphasized organizational stability, rather than process and change. They based their concept on what they found in empirical settings rather than what organizational theory had prescribed. As Day and Day (1977, p. 126) note, the concept "calls into question the more static structural-functional and rational-bureaucratic explanations of complex organizations".

For over a decade after its publication, the concept of negotiated order received accolades. Its promise for developing lines of research has not, however, been fully realized, as both Davies (2003) and Griffiths (2003) point out. Davies observes that the relative absence of a sociology of organizations in medical sociology has been a source of question and consternation. However, symbolic interactionist concepts beginning with the negotiated order and its sequelae may give such studies a fresh start.

The concept of negotiated order generated a spate of studies in the 1970s and several important studies in the 1990s. Svensson (1996) calls for adopting the concept of negotiated order to understand changes in the doctor-nurse relationship which resulted in nurses taking an active role in defining patients' medical status and in interpreting hospital rules. He argues that researchers must take into account both micro processes at the hospital ward level and macro processes at the societal level and that the concept of negotiated order facilitates this type of analysis. Svensson states that the field of doctor-nurse negotiations had widened. The increased incidence of chronic illnesses meant devising strategies for managing life. Nurses had gained increased control of medical work and direct nurse-doctor communications routinely occurred in "sitting rounds" during which doctors and nurses discussed patient care. Such changes gave nurses many more opportunities to negotiate for patients and to negotiate expanding their tasks.

The studies above demonstrate how concepts born in medical sociology can serve other areas of study and disciplines and, thus, extend the reach of medical sociology. Perhaps the concept of negotiated order itself stands as boundary object between fields and disciplines, although its foundations in symbolic interactionism sometimes get lost.

Developing Social Worlds and Arenas Analysis

Like the earlier concept of negotiated order, Anselm Strauss's (1978a, 1978b, 1982) notion of social worlds brings process into the foreground and aims to capture fluid social relationships and forms of structure. Theorizing in social worlds and social arenas analysis stands at the borders between medical sociology and social studies of science. Some scholars who have developed these lines of inquiry, such as Clarke (1998) and Star (1989), possess and build on their expertise in medical sociology; others do not have this expertise. In social worlds and arena analyses, researchers have found that actors do engage in boundary-establishment and maintenance as well as efforts to legitimize their purposes and practices. Strauss's analysis focuses on fluid actions that construct and reconstruct social worlds while Clarke and Star (2008) sharpen how discursive practices shape these actions.

A symbolic interactionist perspective combined with grounded theory methods has generated robust analyses. Clarke and Star (2008, p. 115) show how social worlds analysis has led to new concepts such as "infrastructures," which they define as "frozen discourses that form avenues between social worlds and into arenas and larger structures". There are also "implicated actors" which include both physically present individuals who powerful social world leaders silence, ignore, or render invisible and actors who are *not* physically present but are made discursively present through other participants' conceptions, representations, and intentions (Clarke and Montini, 1993, p. 119). Social worlds analysis fosters making "invisible infrastructures" (Star 1991) visible, particularly when silences within relevant situations are explicated (Clarke 2005).

Star's (1993) widely invoked concept of "cooperation without consensus" puts to rest the notion that symbolic interactionism is wholly anchored to a narrow consensus model. Monica Casper's (1998a, b) study of the controversial area of fetal surgery reveals that different players in the emergent specialty of fetal surgery may cooperate without consensus. Casper (1998a) herself became a player as she rejected a prevailing view of the mother as only a container for the "real" patient, the fetus. Subsequently, she advocated for the mother's health as well as that of the unborn child. The concepts of social worlds and social arenas provide particularly useful tools for understanding fast-changing relationships, policies, and practices in emergent specialties before they become hardened into stable structures that control the conditions of action and involvement.

Conclusion

Researchers can join symbolic interactionism with grounded theory to form a useful theory-methods package. True, symbolic interactionist studies may be quantitative or qualitative and grounded theory methods can be used in conjunction with varied theoretical approaches. However, the symbolic interactionist perspective and grounded theory method fit and complement each other. Symbolic interactionist emphases on meaning and action fit the inductive approach of grounded theory. Both this theoretical perspective and the method emphasize studying actions. Symbolic interactionism takes process as fundamental and thus sensitizes researchers to look for processes—and how processes constitute structures. Grounded theory is uniquely and explicitly a method for analysing processes. Symbolic interactionism follows the pragmatist call to study

HIERARCHY of MORAL STATUS in SUFFERING

High Moral Status--Validated Moral Claims

Medical Emergency

Involuntary Onset

Blamelessness for Condition

“Appropriate” Appearance and Demeanor

Sustained Moral Status—Accepted Moral Claims

Chronic Illness

Negotiated Demands

Present or Past Power & Reciprocities

Diminished Moral Status—Questionable Moral Claims

Chronic Trouble

Blame for Condition and Complications

“Inappropriate / Repugnant” Appearance and/or Demeanor

Personal Value

worth less

worth less

Worth Less

WORTHLESS

Institutional Traditions **Structural Conditions**

Difference—class, race, gender, age, sexual preference, resources, capabilities

Fig. 2.1 As adapted in Charmaz, (2005,) p.523. The original version of this figure has been published in K. Charmaz, “Stories of Suffering: subjective Tales and Research Narratives” in Qualitative Health Research, Volume 9 Issue 3, May,1999 p. 369 by SAGE Publications, Inc., All rights reserved. © SAGE Publications

experiences and practices; grounded theory offers a way to reveal these experiences and practices. Both perspective and method emphasize emergent phenomena in obdurate but multiple realities. Symbolic interactionism leads researchers to study the specific, situated, and constructed nature of multiple realities and diverse definitions of a situation that grounded theory is well-positioned to examine and analyze. All these attributes of perspective and method can serve research in medical sociology.

As our analysis attests, symbolic interactionists in medical sociology have adopted qualitative, interpretive methodologies, which are not explicitly designed for applied research. However, studies from a symbolic interactionist perspective often serve applied goals. These studies address topics of relevance to participants and emphasize participants' meanings, and thus likely yield results suited for translation to practice.

Qualitative research invokes its own canon that differs from quantitative research. Qualitative findings are more explicitly interpretive than are their quantitative counterparts. As such, qualitative researchers openly debate and contest the means for evaluating the validity of their findings. Replicability, in contrast, holds less significance in qualitative than quantitative studies but qualitative researchers do seek resonance with participants and/or practitioners.

When researchers use grounded theory methods, they test and retest their developing theory against new data in keeping with the iterative process of the method. A key strategy of the method, theoretical sampling, leads researchers to gather new data to make their theoretical categories more complete and robust. From its beginnings to the present, grounded theory studies aim to contribute to theory construction. Yet researchers can and have used grounded theory methods for a variety of purposes. When they conduct studies with application in mind, the test of the robustness of the grounded theory resides in its successful, meaningful use in practice (Fig. 2.1).

Ultimately the value of a perspective lies in its products. Why do symbolic interactionist studies of health and illness matter? Interpretive medical sociology contributes to theory, of course, and produces translatable findings that can help professionals relieve suffering. Our work has offered fresh views of how health and illness affects people's lives but we can also help to move understandings of health and illness beyond the level of the individual. In the process, our theorizing can help meet Link's (2003) call to counter-balance the "blame-the-victim" approach so prevalent in North America, generally, and in practice fields pertaining to health, illness, and healing, in particular. Much of what we do as symbolic interactionists articulates the experiences of those who suffer. Symbolic interactionism and related interpretive approaches offer ideal tools for "look(ing) at things from the 'other side'" (Link 2003, p. 462). Let us use these tools and work together with colleagues of various theoretical orientations to produce knowledge that can challenge the dominance of the powerful.

References

Adams, S., Pill, R., & Jones, A. (1997). Medication, chronic illness and identity: The perspective of people with asthma. *Social Science and Medicine, 45*, 189–201.

Allen, D. (1997). The nursing medical boundary: A negotiated order? *Sociology of Health & Illness, 19*, 498–520.

Allen, D. (2000). Negotiating the role of expert carers on an adult hospital ward. *Sociology of Health & Illness, 22*, 149–171.

Belgrave, L. L., Allen-Kelsey, G. J., Smith, K. J., & Flores, M. C. (2004). Living with dementia: Lay definitions of Alzheimer's disease among African American caregivers and sufferers. *Symbolic Interaction, 27*, 199–222.

Belgrave, L.L., & Bisma, A.S. (forthcoming). Successful/productive aging, responsibility, and reflection. In J.W. Murphy & S.L. Arxer (Eds.), *The symbolism of globalization, development, and aging.* New York: Springer.

Berg, M., & Bowker, G. (1997). The multiple bodies of the medical record: Toward a sociology of an artifact. *Sociological Quarterly, 38*, 513–537.

Berg, M., & Timmermans, S. (2000). Orders and their others: On the constitution of universalities in medical work. *Configurations, 8*, 31–61.

Blum, N.S. (1994). Deceptive practices in managing a family member with Alzheimer's disease. *Symbolic Interaction, 17*, 21–36.

Blumer, H. (1969). *Symbolic interactionism: Perspective and method*. Englewood Cliffs: Prentice-Hall.

Brown, P. R., Alaszewski, A., Swift, T., & Nordin, A. (2011). Actions speak louder than words: The embodiment of trust by heatlhcare professionals in gynae-oncology. *Sociology of Health & Illness, 33*, 280–295.

Bury, M. (1982). Chronic Illness as biographical disruption. *Sociology of Health & Illness, 4*, 167–182.

Carricaburu, D., & Pierret, J. (1995). From biographical disruption to biographical reinforcement: The case of HIV-positive men. *Sociology of Health & Illness, 17*, 65–88.

Carter, S. K. (2010). Beyond control: Body and self in women's childbearing narratives. *Sociology of Health & Illness, 32*, 993–1009.

Casper, M. J. (1998a). *The making of the unborn patient: A social anatomy of fetal surgery*. New Brunswick: Rutgers University Press.

Casper, M. J. (1998b). Negotiations, work objects, and the unborn patient: The interactional scaffolding of fetal surgery. *Symbolic Interaction, 21*, 379–400.

Charmaz, K. (1980). *The social reality of death*. Reading: Addison-Wesley.

Charmaz, K. (1983). Loss of self: A fundamental form of suffering in the chronically Ill. *Sociology of Health & Illness, 5*, 168–195.

Charmaz, K. (1991). *Good days, bad days: The self in chronic illness and time*. New Brunswick: Rutgers University Press.

Charmaz, K. (1994a). Discoveries of self in illness. In M. L. Dietz, R. Prus & W. Shaffir (Eds.), *Doing Everyday Life: Ethnography as Human Lived Experience* (pp. 226–242). Mississauga, Ontario: Copp Clark, Longman.

Charmaz, K. (1994b). Identity dilemmas of chronically ill men. *Sociological Quarterly, 35*, 269–288.

Charmaz, K. (1995). The body, identity, and self: Adapting to impairment. *Sociological Quarterly, 36*, 657–680.

Charmaz, K. (1999a). Stories of suffering: Subjects' tales and research narratives. *Qualitative Health Research, 9*, 69–82.

Charmaz, K. (1999b). Stories of Suffering: Subjects' Tales and Research Narratives. *Qualitative Health Research, 9*(3), 369.

Charmaz, K. (2002). The self as habit: The reconstruction of self in chronic illness. *Occupational Therapy Journal of Research, 22*(Supplement 1), 31–42.

Charmaz, K. (2005). Grounded theory in the 21st century: Applications for advancing social justice studies. In N. K. Denzin & Y. E. Lincoln (Eds.), *Handbook of qualitative research* (3rd ed., pp. 507–535). Thousand Oaks: Sage.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.

Charmaz, K. (2008a). Constructionism and the grounded theory method. In J. A. Holstein & J. F. Gubrium (Eds.), *Handbook of constructionist research* (pp. 397–412). New York: Guilford.

Charmaz, K. (2008b). Views from the margins: Voices, silences, and suffering. *Qualitative Research in Psychology, 5*, 7–18.

Charmaz, K. (2009). Stories, silences, and self: Dilemmas in disclosing chronic illness. In D. E. Brashers & D. J. Goldstein (Eds.), *Communicating to manage health and illness* (pp. 240–270). New York: Routledge.

Charmaz, K. (2011). A constructivist grounded theory analysis of losing and regaining a valued self. In F. J. Wertz, K. Charmaz, L. J. McMullen, R. Josselson, R. Anderson, Rosemarie, & E. McSpadden *Five Ways of Doing Qualitative Analysis: Phenomenological Psychology, Grounded Theory, Discourse Analysis, Narrative Research, and Intuitive Inquiry* (pp. 165–204). New York: Guilford.

Charmaz, Kathy. (1987). Struggling for a self: Identity levels of the chronically Ill. In P. Conrad & J. A. Roth (Eds.), *Research in the Sociology of Health Care: The Experience and Management of Chronic Illness* (pp. 283–321). Greenwich: JAI Press.

Charmaz, K., & Rosenfeld, D. (2006). Reflections of the body, images of self: Visibility and invisibility in chronic illness and disability. In D. D. Waskul & P. Vannini (Eds.), *Body/embodiment: Symbolic interaction and the sociology of the body* (pp. 35–50). London: Ashgate.

Charmaz, K., & Rosenfeld, D. (2010). Chronic illness. In W. C. Cockerham (Ed.), *New Blackwell companion to medical sociology* (pp. 312–333). Oxford: Wiley-Blackwell.

Ciambrone, D. (2001). Illness and other assaults on self: The relative impact of HIV/AIDS on women's lives. *Sociology of Health & Illness, 23*, 517–540.

Clare, L., Rowlands, J., Burce, E., Surr, C., & Downs, M. (2008). 'I don't do like I used to do': A grounded theory approach to conceptualizing awareness in people with moderate to severe dementia living in long-term care. *Social Science and Medicine, 66*, 2366–2377.

Clark, A. M. (2001). Treatment decision-making during the early stages of heart attack: A case for the role of body and self in influencing delays. *Sociology of Health & Illness, 23*, 425–426.

Clarke, A. E. (1998). *Disciplining reproduction: Modernity, American life sciences and the 'problem of sex'*. Berkeley: University of California Press.

Clarke, A. E. (2005). *Situational analysis: Grounded theory after the postmodern turn*. Thousand Oaks: Sage.

Clarke, A. E., & Fujimura, J. (1992). Introduction: What tools? Which jobs? Why right? In A. E. Clarke & J. Fujimura (Eds.), *The right tools for the job: At work in twentieth century life sciences* (pp. 3–44). Princeton: Princeton University Press.

Clarke, J. N., & James, S. (2003). The radicalized self: The impact on the self of the contested nature of the diagnosis of chronic fatigue syndrome. *Social Science and Medicine, 57*, 1387–1395.

Clarke, A. E., & Montini, T. (1993). The many faces of RU486: Tales of situated knowledges and technological contestations. *Science, Technology and Human Values, 18*, 42–78.

Clarke, A. E., & Star, S. L. (2008). The social worlds framework: A theory/methods package. In M. Lynch, O. Amsterdamska, & E. Hackett (Eds.), *Handbook of science and technology studies* (pp. 113–137). Cambridge: MIT Press.

Cockerham, W. C. (2012). *Medical sociology* (12th ed.). Upper Saddle River: Pearson Prentice-Hall.

Conrad, P. (1987). The experience of illness: Recent and new directions. *Research in the Sociology of Health Care: The Experience and Management of Chronic Illness., 6*, 1–32.

Corbin, J. M., & Strauss, A. (1984). Managing chronic illness at home: Three lines of work. *Qualitative Sociology, 8*, 224–247.

Corbin, J. M., & Strauss, A. (1987). Accompaniments of chronic illness: Changes in body, self, biography and biographical time. *Research in the Sociology of Health Care: The Experience and Management of Chronic Illness, 6*, 249–281.

Corbin, J. M., & Strauss, A. (1988). *Unending work and care: Managing chronic illness at home*. San Francisco: Jossey-Bass.

Crossley, N. (2004). The circuit trainer's habitus: Reflexive body techniques and the sociality of the workout. *Body and Society, 10*, 37–69.

Davies, C. (2003). Some of our concepts are missing: Reflections on the absence of a sociology of organisations. *Sociology of Health & Illness, 25*, 172–190.

Davis, M. S. (1973). *Living with multiple schlerosis: A social psychological analysis*. Springfield: Charles C. Thomas.

Day, R., & Day, J. V. (1977). A review of the current state of negotiated order theory: An appreciation and a critique. *The Sociological Quarterly, 18*, 126–142.

Encandela, J. A. (1997). Social construction of pain and aging: Individual artfulness within interpretive structures. *Symbolic Interaction, 20*, 251–273.

Estes, C. L., Biggs, S., & Phillipson, C. (2003). *Social theory, social policy, and aging*. Bershire: Open University Press.

Faircloth, C., Boylstein, C., Rittman, M., & Young, M. E. (2004a). Disrupted bodies: Experiencing the newly limited body in stroke. *Symbolic Interaction, 27*, 71–87.

Faircloth, C. A., Boylstein, C., Rittman, M., Young, M. E., & Gubrium, J. F. (2004b). Sudden illness and biographical flow in narratives of stroke recovery. *Sociology of Health & Illness, 26*, 242–261.

Foote-Ardah, C. E. (2003). The meaning of complementary and alternative medicine practices among people with HIV in the United States: Strategies for managing everyday life. *Sociology of Health & Illness, 25*, 481–500.

Freidson, Eliot. (1961). *Patients' views of medical practice: A study of subscribers to a prepaid medical plan in the Bronx*. New York: Russell Sage Foundation.

Fujimura, J. H. (1992). Crafting science: Standardized packages, boundary objects, and 'translation'. In A. Pickering (Ed.), *Science as practice and culture* (pp. 168–211). Chicago: University of Chicago Press.

Gabe, J. (2005). Medicalization. In J. Gabe, M. Bury, & M. A. Elston (Eds.), *Key concepts in medical sociology* (pp. 59–73). London: Sage.

Galvin, Rose D. (2005). Researching the disabled identity: Contextualising the identity transformations which accompany the onset of impairment. *Sociology of Health & Illness, 27*, 393–413.

Germov, J. (2005). Managerialism in the Australian public health sector: Towards the hyper-rationalisation of professional bureaucracies. *Sociology of Health & Illness, 27*, 738–758.

Ghaziani, A. (2004). Anticipatory and actualized identities: A cultural analysis of the transition from AIDS disability to work. *Sociological Quarterly, 45*, 273–301.

Glaser, B. G., & Strauss, A. L. (1965). *Awareness of dying*. Chicago: Aldine.

Glaser, B. G., & Strauss, L. A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Glaser, B. G., & Strauss, A. L. (1968). *Time for dying*. Chicago: Aldine.

Goffman, E. (1959). *The presentation of self in everyday life*. Garden City: Doubleday.

Goffman, E. (1961). *Asylums*. Garden City: Doubleday.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs: Prentice-Hall.

Griffiths, L. (2003). Making connections: Studies of the social organisation of healthcare. *Sociology of Health & Illness, 25*, 155–171.

Gubrium, J. (1986). *Oldtimers and Alzheimer's: The descriptive organization of senility*. Greenwich: JAI Press.

Haddow, G. (2005). The phenomenology of death, embodiment, and organ transplantation. *Sociology of Health & Illness, 27*(1), 92–113.

Håland, E. (2011). Introducing the electronic patient record (EPR) in a hospital setting: Boundary work and shifting constructions of professional identities. *Sociology of Health & Illness, 22*, 1–15.

Haworth-Hoeppner, S., & Maines, D. (2005). A sociological account of the persistence of invalidated anorexic identities. *Symbolic Interaction, 28*, 1–23.

Hayes, J., Boylstein, C., & Zimmerman, M. K. (2009). Living and loving with dementia: Negotiating spousal and caregiver identity through narrative. *Journal of Aging Studies, 23*, 48–59.

Hewitt, J. (2000). *Self and society: A symbolic interactionist social psychology*. New York: Allyn & Bacon.

Hinojosa, R., Boylstein, C., Rittman, M., Hinojosa, M. S., & Faircloth, C. A. (2008). Constructions of continuity after a stroke. *Symbolic Interaction, 31*, 205–224.

Holstein, J. A., & Gubrium, J. F. (2007). Constructionist perspectives on the life course. *Sociology Compass, 1*, 335–352.

Holstein, M. B., & Minkler, M. M. (2003). Self, society, and the 'new gerontology'. *The Gerontologist, 43*, 787–796.

Horowitz, R. (2011). Organic public sociology in the pragmatist perspective: A multifaceted approach. *Symbolic Interaction, 32*, 1–19.

Hubbard, G., Kidd, L., & Kearney, N. (2010). Disrupted lives and threats to identity: The experiences of people with colorectal cancer within the first year following diagnosis. *Health, 14*, 131–146.

Jones, I. R., & Higgs, P. F. (2010). The natural, the normal, and the normative: Contested terrains in ageing and old age. *Social Science and Medicine, 71*, 1513–1519.

Karner, T. X., & Bobbitt-Zeher, D. (2005). Losing selves: Dementia care as disruption and transformation. *Symbolic Interaction, 28*, 549–570.

Lawton, J. (2003). Lay experiences of health and illness: Past research and future agendas. *Sociology of Health & Illness, 25*, 23–40.

Link, B. G. (2003). The production of understanding. *Journal of Health and Social Behavior, 44*, 457–469.

Löfmark, U., & Hammarström, A. (2005). Older stroke patients' negotiations within the hierarchic medical context. *Qualitative Health Research, 15*, 778–790.

Lombardo, A. P. (2004). Anatomy of fear: Mead's theory of the past and the experience of the HIV/AIDS 'worried well'. *Symbolic Interaction, 27*, 531–548.

Lowton, K., & Gabe, J. (2003). Life on a slippery slope: Perceptions of health in adults with cystic fibrosis. *Sociology of Health & Illness, 5*, 289–319.

MacRae, H. (2010). Managing identity while living with Alzheimer's disease. *Qualitative Health Research, 20*, 293–305.

Maines, D. R. (1991). The storied nature of health and diabetic self-help groups. *Advances in Medical Sociology, 5*, 35–45.

Maines, D. R., & Charlton, J. C. (1985). The negotiated order approach to the analysis of social organization. In H. A. Farberman & R. S. Perinbauayagam (Eds.), *Foundations of interpretive sociology: Original essays in symbolic interaction* (pp. 271–308). Greenwich: JAI Press.

Markens, S., Browner, C. H., & Mabel Preforan, H. (2010). Interrogating the dynamics between power, knowledge and pregnant bodies in amniocentesis decision making. *Sociology of Health & Illness, 32*, 37–56.

Mathieson, C., & Stam, H. (1995). Renegotiating identity: Cancer narratives. *Sociology of Health & Illness, 17*, 283–306.

McKenzie, H. & Crouch, M. (2004) Discordant feelings in the lifeworld of cancer survivors, *Health*, *8*(2), 139–157.

Mead, G. H. (1932). *Philosophy of the present*. LaSalle: Open Court Press.

Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.

Miles, A., Curran, H. V., Pearce, S., & Allan, L. (2005). Managing constraint: The experience of people with chronic pain. *Social Science and Medicine, 61*, 431–441.

Murphy, R. F. (1987). *The body silent*. New York: Henry Holt.

Nack, A. (2008). *Damaged goods? Women living with incurable sexually transmitted diseases*. Philadelphia: Temple University Press.

Nadai, E., and Christoph, M. (2007). Negotiations at all points? interaction and organization. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*. http://www.qualitative-research.net/fqs-texte/1-08/08-1-32-e.htm.

Nettleton, S., Burrows, R., & Watt, I. (2008). Regulating medical bodies? The consequences of the 'modernization' of the NHS and the disembodiment of clinical knowledge. *Sociology of Health & Illness, 30*, 333–348.

Parry, D. C. (2006). Women's lived experiences with pregnancy and midwifery in a medicalized and fetocentric context: Six short stories. *Qualitative Inquiry, 12*, 459–471.

Phoenix, C., & Sparkes, A. C. (2009). Being Fred: Big stories, small stories, and the accomplishment of a positive ageing identity. *Qualitative Research, 9*, 219–236.

Pierret, J. (2003). The illness experience: State of knowledge and perspectives for research. *Sociology of Health & Illness, 25*, 4–22.

Pierret, J. (2007). An analysis over time (1990–2000) of the experiences of living with HIV. *Social Science and Medicine, 65*, 1595–1605.

Robillard, A. B. (1999). *Meaning of a disability: The lived experience of paralysis*. Philadelphia: Temple University Press.

Rosenfeld, D., & Faircloth, C. (2004). Embodied fluidity and the commitment to movement: Constructing the moral self through arthritis. *Symbolic Interaction, 27*, 507–529.

Roth, J. A. (1963). *Timetables*. Indianapolis: Bobbs-Merrill.

Sanders, C., Donovan, J., & Dieppe, P. (2002). The significance and consequences of having painful and disabled joints in older age: Co-existing accounts of normal and disrupted biographies. *Sociology of Health & Illness, 24*, 227–253.

Sandstrom, K. L. (1990). Confronting deadly disease: The drama of identity construction among gay men with AIDS. *Journal of Contemporary Ethnography-, 19*, 271–294.

Sandstrom, K. L. (1998). Preserving a vital and valued self in the face of AIDS. *Sociological Inquiry, 68*, 354–371.

Shriver, T. E., & Waskul, D. D. (2006). Managing the uncertainties of Gulf war illness: The challenges of living with contested illness. *Symbolic Interaction, 29*, 465–486.

Sinding, C., & Wiernikowski, J. (2008). Disruption foreclosed: Older women's cancer narratives. *Health, 12*, 389–411.

Smith, B., & Sparkes, A. C. (2008). Hanging bodies, changing narratives and the consequences of tellability: A case study of becoming disabled through sport. *Sociology of Health & Illness, 30*, 217–236.

Snow, D. A. (2002). Extending and broadening Blumer's conceptualization of symbolic interactionsim. *Symbolic Interaction, 25*, 571–575.

Star, S. L. (1989). *Regions of the mind: Brain research and the quest for scientific certainty*. Stanford: Stanford University Press.

Star, S. L. (1991). The sociology of the invisible: The primacy of work in the writings of Anselm Strauss. In D. R. Maines (Ed.), *Social organization and social process: Essays in honor of Anselm Strauss* (pp. 265–284). Hawthorne: Aldine de Gruyter.

Star, S. L. (1993). Cooperation without consensus in scientific problem solving: Dynamics of closure in open systems. In S. Easterbrook (Ed.), *CSCW: Cooperation or conflict?* (pp. 93–105). London: Springer.

Star, S. L., & Griesemer, J. R. (1989). Institutional ecology, 'translations' and boundary objects: Amateurs and professionals in Berkeley's museum of vertebrate zoology, 1907–39. *Social Studies of Science, 19*, 387–420.

Stockl, A. (2007). Complex syndromes, ambivalent diagnosis, and existential uncertainty: The case of systemic lupus erythematosus (SLE). *Social Science and Medicine, 65*, 1549–1559.

Stolte, J. F., Fine, G. A., & Cook, K. S. (2001). Sociological miniaturism: Seeing the big through the small in social psychology. *Annual Review of Sociology, 27*, 387–413.

Strauss, A. L. (Ed.). (1956). *George Herbert Mead on social psychology*. Chicago: University of Chicago Press.

Strauss, A. L. (1959). *Mirrors and masks: The search for identity*. Glencoe: Free Press.

Strauss, A. L. (1978a). *Negotiations, varieties, context, processes, and social order*. San Francisco: Jossey-Bass Publishers.

Strauss, A. L. (1978b). A social world perspective. *Studies in Symbolic Interaction, 1*, 119–128.

Strauss, A. L. (1982). Social worlds and legitimation processes. *Studies in Symbolic Interaction, 4*, 171–190.

Strauss, A. L. (1984). Social worlds and their segmentation processes. *Studies in Symbolic Interaction, 5*, 123–139.

Strauss, A. L. (1987). *Qualitative analysis for social scientists*. Cambridge: Cambridge University Press.

Strauss, A. L. (1993). *Continual permutations of action*. New York: Aldine de Gruyter.

Strauss, A., Fagerhaugh, S., Suczek, B., & Wiener, C. (1982). Sentimental work in the technologized hospital. *Sociology of Health & Illness, 4*, 254–279.

Strauss, A. L., Fagerhaugh, S., Suczek, B., & Wiener, C. (1985). *Social organization of medical work*. Chicago: University of Chicago Press.

Strauss, A. L., & Glaser, B. (Eds.). (1975). *Chronic illness and the quality of life*. St. Louis: C.V. Mosby.

Strauss, A., Leonard, S., Danuta, E., Rue, B., & Melvin, S. (1963). The hospital and its negotiated order. In E. Freidson (Ed.), *The hospital in modern society*. New York: Free Press.

Svensson, R. (1996). The interplay between doctors and nurses: A negotiated order perspective. *Sociology of Health & Illness, 18*, 379–414.

Timmermans, S., & Freidin, B. (2007). Caretaking as articulation work: The effects of taking up responsibility for a child with asthma on labor force participation. *Social Science and Medicine, 65*, 1351–1363.

Turner, R. (1976). The real self: From institution to impulse. *American Journal of Sociology, 81*, 989–1016.

Turner, B. S., & Wainwright, S. P. (2003). Corps de ballet: The case of the injured ballet dancer. *Sociology of Health & Illness, 25*, 269–288.

Vittoria, A. K. (1999). 'Our own little language': Naming and the social construction of Alzheimer's disease. *Symbolic Interaction, 22*, 361–384.

Walsh, D. (2010). Childbirth embodiment: Problematic aspects of current understandings. *Sociology of Health & Illness, 32*, 486–501.

Warin, M., Turner, K., Moore, V., & Davis, M. (2008). Bodies, mothers and identities: Rethinking obesity and the BMI. *Sociology of Health & Illness, 30*, 97–111.

Waskul, D. D., & Vannini, P. (2006). Introduction: The body in symbolic interaction. In D. Waskul & P. Vannini (Eds.), *Body/embodiment: Symbolic interaction and the sociology of the body* (pp. 1–18). Hampshire: Ashgate.

Wiener, C. (1991). Arenas and careers: The complex interweaving of personal and organizational destiny. In D. Maines (Ed.), *Social organization and social process: Essays in honor of Anselm Strauss* (pp. 175–188). Hawthorne: Aldine de Gruyter.

Wiener, C. (2000). *The elusive quest: Accountability in hospitals*. Hawthorne: Aldine de Gruyter.

Williams, C. (2000). Alert assistants in managing chronic illness: The case of mothers and teenage sons. *Sociology of Health & Illness, 22*, 254–272.

Williams, C. (2002). *Mothers, young people and chronic illness*. Aldershot: Ashgate.

Williams, S. J. (2003). *Medicine and the body*. London: Sage.

Zola, I. K. (1972). Medicine as an institution of social control. *Sociological Review, 20*, 487–504.

Zola, I. K. (1991). The medicalization of aging and disability. *Advances in Medical Sociology, 2*, 299–315.

Chapter 3
Social Construction and Health

Sigrun Olafsdottir

Social construction represents a major theme in sociology. Ever since Berger and Luckman (1967) suggested that some of our most taken-for-granted assumptions about society are embedded in specific "realities", sociologists, across the board, have been interested in such processes and applied them to a wide array of topics. Social constructs are viewed as the by-products of countless human choices, rather than laws that result from divine will or nature. This approach stands in contrast to essentialism that considers specific phenomena as inherent and transhistorical essences independent of human actions and decisions (Burr 1995). The theoretical contributions of medical sociologists within this perspective are shaped by the development of medical sociology itself. Early on, Strauss (1957) pointed out the inherent tension between sociologists *in* medicine and sociologists *of* medicine. The former generally collaborate closely with medical doctors to solve practical problems in medicine, but the latter are committed to use issues of health, illness, and healing as a window to help us understand larger sociological questions. Increasingly, sociologists are interested in questions that simultaneously advance sociological theory and have implications for the well-being of populations and individuals. Not surprisingly, these questions often center on how social and cultural factors matter for the way in which we understand and respond to biological processes.

In many ways, issues of health, illness, and healing offer particularly interesting insights into our understanding of the social construction of reality. While almost all aspects of human society, from the largest organizational features to the smallest routine interactions are continually (re)constructed, our health has an "objective" biological component that individuals and societies respond to. A useful distinction emerged between disease (the biological condition) and illness (the

---

S. Olafsdottir (✉)
Department of Sociology, Boston University, Cummington Mall 96,
Boston, MA 02215, USA
e-mail: sigrun@bu.edu

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_3,

social meaning of the condition), highlighting the importance of understanding every issue related to health and illness as shaped by biological as well as social factors (Eisenberg 1977). It is the case that social and cultural factors impact virtually every question that medical sociologists are interested in, including, how we understand the biological abnormalities in our bodies, how we respond to illness, how we interact with medical professionals, and how we deliver our health care. All these processes have been created and recreated in human interaction over an extended period of time. Consequently, issues of health, illness, and healing offer us an opportunity to examine the interplay of the biological and the social in our lives.

Although notions of social constructions are evident in the earliest sociological writings (e.g. Durkheim, Mannheim, and Thomas), the approach took off as a major theoretical perspective both in sociology and medical sociology in the 1960s. One strand of research emerged from those scholars interested in understanding the role of deviance in society. They pointed out the lack of a universal law guiding what is abnormal or deviant; rather, certain social behaviors become defined in such a way within a particular social context. Inevitably, this definition has a strong association with power, namely certain individuals and groups have the power to label the behavior of other individuals and groups as weird, criminal, deviant, or sick (Becker 1963; Conrad and Schneider 1992; Spector and Kitsuse 1977; Zola 1972). This was also a time where major sociological thinkers were considering how issues related to health, illness, and healing do not represent an actual reality. As an example, Goffman (1961, 1963) pointed out how the "moral career" involves both biological conditions as well as social experiences; Freidson (1970) illustrated how illness and disease are socially constructed in his important book on the *Profession of Medicine*, and Foucault (1965, 1973) showed how the medical profession, through its powerful position, was able to label what was normal and abnormal. Together, this early work has inspired a large body of work in medical sociology, nicely captured by Conrad and Barker (2010: S69) as illustrating "how illness is shaped by social interactions, shared cultural traditions, shifting frameworks of knowledge, and relations of power."

Given the centrality of social construction within the sociology of health, illness, and healing, it would be impossible to count all the different ways in which medical sociologists engage with the approach. Consequently, I focus on a few major areas where important contributions have been made and consider: (1) The cultural meanings of illness; (2) The distinction between the normal and the abnormal; (3) How illness responses are embedded in the community; and (4) How medical knowledge itself is impacted by social factors. I then discuss the strengths and weaknesses of the approach and consider future directions that highlight how our world of health and illness is simultaneously impacted by biological realities, cultural traditions, historical trajectories, and institutional arrangements. To illustrate that point, I draw on a cross-national perspective and consider how it can increase our understanding of health, illness, and healing.

The Cultural Meanings of Illness

Historically, illnesses have represented reality to most people. They represent abnormal variations in our bodies and our responses are often considered rational and even the only way to respond. This reality has become so taken for granted that we fail to notice that it is embedded in specific social contexts and ideologies. Even in cases when there are biological abnormalities, there are social and cultural meanings attached to them. These meanings help us make sense of the illness and have consequences on patients and health care. As an example, Sontag (1978) argued that negative metaphorical meanings of cancer, as evil or repressive, are common in our society and significantly impact those afflicted with the disease. In many ways, the cultural understanding of cancer ‘and particularly breast cancer’ has been altered through the survivor movement, which at first glance appears to be a positive development, as it empowers those suffering from it. However, research has shown that many women alter the meaning of survivorship or reject it all together. In particular, the “positive” survivor discourse alienates women who struggle with the threat of recurrence, who feel their cancer experience was not severe enough to merit this title, or who prefer to grapple with the disease more privately (Kaiser 2008).

Although all illnesses have a cultural component, those with stigma attached to them illustrate this point particularly well. The concept of stigma, originally formulated by Goffman (1963) is an attribute that, according to prevailing social norms, is deeply discrediting, marks a person as tainted, and allows the target to be denigrated. Sociologists have pointed out several illnesses frequently stigmatized in societies, including epilepsy, cancer, mental illness, HIV/AIDS, and sexually transmitted diseases (Conrad and Barker 2010). Link and Phelan (2001) define stigma as the co-occurrence of its components: labeling, stereotyping, separation, status loss, and discrimination, and suggest that power must be exercised for stigmatization to take place. Many children, even before entering first grade have notions about what it means to be crazy and have ideas about what “those” people are like. These ideas have been created and recreated in social interaction, but have become an inherent part of our cultural context, helping us to make sense of individuals who behave a strange way. However, what is considered strange is not equally determined across social groups as those in more powerful positions have greater power to define what constitutes such behavior.

The difference between illnesses that carry high versus low levels of stigma illustrates that there is nothing inherent in some conditions that naturally leads to stigma. Comparison across different types of physical and mental illness shows this clearly. It would seem that individuals and societies should view all types of cancer in a similar way, yet research has indicated that while some stigma may be associated with all types of cancer (Muzzin et al. 1994), those diagnosed with lung cancer experience particularly high levels of stigma, as the disease is strongly associated with smoking and therefore caused by the individuals in many people’s minds. This does, however, not apply exclusively to smokers but non-smokers felt stigmatized in the same way (Chapple et al. 2004). And while mental illnesses are more likely to be stigmatized in general, some mental illnesses carry more stigma than others. For example, individuals are more likely to hold negative attitudes toward those with schizophrenia as compared to depression, and a key explanation is the link between violent behavior and schizophrenia (Martin et al. 2000). This difference across disorders has even been observed amongst children; for example, Americans are more likely to be willing to have a child with depression in the same class as their child, as compared to ADHD. Yet, the reverse happens when they are asked whether they would want their child to be friends with a hypothetical child with depression or ADHD (Martin et al. 2007).

History can serve as a powerful tool to better understand how meaning is created and recreated in social interaction. Research has shown that the meanings of behavior change over time and, in the US today, few would regard some illnesses of the past in such a way. For example, masturbation was once considered as an illness, as well as Drapetomani: a condition described by American physician Samuel A. Cartwright as a mental illness causing black slaves to flee captivity. The example that is perhaps best known is homosexuality—included in the Diagnosis and Statistical Manual (DSM) of the American Psychiatric Association (APA) as a disorder until 1973. It was removed largely due to efforts of the gay rights movement and general changes in the landscape of norms surrounding human rights issues. Despite the strong sentiment that homosexuality was not a disease, the APA refused to completely eliminate it and created a new disease, ego-dystonic homosexuality. Rather than considering all homosexuality as an illness, the disease was now limited to those who had homosexual feelings but wanted to be heterosexual. It was not until 1986 that homosexuality was completely removed from the DSM as a potential illness (Conrad and Schneider 1992). These examples show that, in some cases, the label of an illness is closely related to the overarching cultural and political landscape of a society and, in many cases, has a moral component where more powerful groups view the behavior of less powerful groups as immoral and as something that society needs to respond to and control.

What is Normal and Abnormal?

Tracing back to the 1960s and 1970s, sociologists have been interested in understanding how particular social behaviors become defined as deviant, especially within the subfields of criminology and medical sociology. These scholars pointed out that there was nothing inherently wrong in many of the behaviors we consider deviant; rather, these behaviors represent deviations from the social norms that guide our everyday life, and in particular deviate from the norms that more powerful groups consider important. Early on, Szasz (1961) argued that mental illnesses were nothing but a myth, as such "illness" lacked the characteristics that we normally require from illnesses—most importantly some form of biological deviation. He argued that mental illnesses simply represented problems in living and in some way reflect a normal response to an abnormal world. Within sociology, Scheff

(1966) was the first to articulate the link between labeling and mental illness, arguing that we all, at one point or another, engage in deviant behavior. What matters is that some people become labeled as deviant whereas others are able to avoid the label. He points out that being mentally ill is in essence a social role and once the label is applied, others expect certain behavior from the "sick" individual that continues to perform as expected of him or her. Rosenhan's (1973) study of *Being Sane in Insane Place* clearly illustrates the difficulties in distinguishing between the normal and the abnormal. In this study, eight pseudo-patients attempted to be admitted to a mental hospital with symptoms of schizophrenia, which proved successful in all cases. Upon admission, they acted like they normally would, yet were hospitalized for 7–52 days and all released with schizophrenia in remission. In addition, their behavior (e.g. taking notes) was interpreted as a reflection of the illness within the hospital walls. This highlights the inadequacy of the psychiatric diagnosis system, raising question of how we can distinguish between the normal and the abnormal.

Social constructionism and labeling quickly came under attack when some argued that mental illness did, in fact, represent real illness (Gove 1970). This resulted in heated debates both on the role of labeling as steering an individual into treatment as well as whether the causes of rejection were associated with labeling and stigma or simply a response to the symptoms themselves (Gove 1975; Scheff 1974). The opposing views clash on the understanding of what mental illness is, particularly whether there is a reality to such illness beyond the label. To consolidate the two view points, Link and his colleagues offered their modified labeling theory, using insights from the original labeling theory, but not arguing that labeling is a direct cause of mental illness (Link 1982, 1987; Link et al. 1989). In this view, stereotypes of mental illnesses play a powerful role in limiting the opportunities of those experiencing mental illness, both concretely through a direct rejection but also more indirectly, since there is a general agreement that those experiencing mental illness are different from others. Specifically, they are often viewed as less reliable, less capable, and/or more dangerous than the average individual. Consequently, individuals who have been diagnosed with mental illness are confronted by the reality that the label of mental illness is now a part of them, resulting in a fear of rejection in a wide array of personal and professional situations. Regardless of what such labels play in causing mental illness in society, it is clear that they continue to have important consequences for those living with mental illness, especially as many people have strong notions about what the mentally ill are like, even before they get to know someone who has experienced such illness.

Closely related to the labeling perspective are notions of medicalization. Similar to labeling, this perspective focuses on how some individuals and groups in society have the power to define and respond to "abnormal" behavior of other groups, often with less power. The key difference between the two perspectives is the focus of medicalization theories on the role of medicine as an institution of social control, holding power to define what is normal and what is abnormal. More specifically, the concept refers to a process in which medical authority has to a large degree replaced religious and legal authority systems (Conrad and

Schneider 1992; Zola 1972) as the main agent with power to define and respond to deviant behavior. Social behaviors previously defined as a sin or as a crime are increasingly defined as an illness and the sinner and the criminal have been replaced by the patient. This trend has happened across a large number of conditions, ranging from abnormal behavior and processes, to normal biological processes, to potential risk factors for disease and has been so large-scale that it has been labeled as one of the major social transformations in advanced, industrialized nations (Clarke et al. 2003).

It is important to consider that theories of medicalization are ultimately theories of power, specifically, who has the power to define, describe, and respond to variations in social behaviors, emotions, and feelings. In the original formulation, the power largely resided with the medical profession itself (Conrad 1992), but as societies have changed other powerful agents of medicalization have emerged, including the pharmaceutical industry, consumers, and managed care (Conrad and Leiter 2004). Countless examples from past research illustrate how power shapes our definitions of what is abnormal. For instance, historically, societies were more likely to medicalize women's problems. Of course, we might consider that women are simply in more need to be fixed with medical innovations, but an more plausible explanation is that an historically male-dominated medical profession tended to view issues pertaining to women as problematic. For example, the APA decided to include pre-menstrual syndrome (PMS) as a psychiatric disorder in its manual in 1986, which potentially meant that all women could have a mental illness. Regardless of whether PMS is real or not, the inclusion clearly corresponds to the cultural position of women in society and the meaning associated with the gender roles attached to men and women (Figert 1996).

More recently, it is clear that the pharmaceutical industry impacts how we think about what is normal and abnormal. When GloxoSmithKline was ready to introduce Paxil to the market in the 1990s, the company faced the problem of not having enough potential buyers. While severe anxiety has long been known as a disabling condition, marketing to that limited population would not have been a particularly profitable endeavor. Instead, GlaxoSmithKline came up with the strategy of simultaneously marketing milder versions of the condition and the drug to treat it. The ads implied that everyone who experiences any kind of anxiety throughout the day may, in fact, suffer from seasonal anxiety disorder and/or general anxiety disorder. Although the drug company was later charged for inappropriate and misleading marketing, the fact remains that both disorders are now a part of our social landscape (Moynihan and Cassels 2005).

In sum, regardless of whether we approach the definitions of normality and abnormality through the perspective of labeling or medicalization, sociologists argue that definitions of what constitutes normal behavior is, at least in part, constructed within a specific social context with a specific power structure, where some groups have the power to define and others have little power to resist the definitions forced upon them.

Illness Responses Embedded in Cultural Context

Just as illness is often viewed from a pure biological standpoint, responses to illness are often considered logical responses to abnormal biological processes. That is, individuals consider their choices and make informed decisions based on these choices when they get sick. Yet, this is only a partial account as individuals look for clues about what is going on with them and what is most appropriate to do within their social environment. Decisions about responses are embedded in the social networks of individuals and fall in line with the cultural norms and expectations followed by those that matter to us (Olafsdottir and Pescosolido 2009; Pescosolido 1992).

Across disciplines, scholars have been concerned with the role of culture in responses to illness. Anthropologists have long highlighted that cultural beliefs impact what is perceived as an appropriate reaction to illness (Kleinman 1980). They view culture as "located in the realm of expectations, values, ideas, and belief systems" (Jayasuriya 1992: 41). In order to understand how people use services, psychologists have developed models conceptualizing health beliefs or intentions as important predictors of use (Fishbein and Ajzen 1975; Rosenstock 1966) and sociologists have focused on predisposing characteristics, such as race and gender, as proxies for cultural influences on utilization (Andersen 1968, 1995). As far back as the 1960s, sociologists illustrated that the beliefs of the group mattered for illness behavior. In an early study, Kadushin (1966) identified a social circle of *friends and supporters of psychotherapy*. The individuals belonging to this group shared certain characteristics, including being more likely to know someone who had been in therapy, asking for a referral as well as being more likely to go to plays, concerts, and museums. He argues that those belonging to this circle are more likely to go to psychotherapy, not necessarily because they have more problems that require the attention of a therapist, but because they exist in a social context that encourages such a solution.

The social environment matters for what we do when we encounter illness in general, but it is particularly important when we encounter mental illness. The Network-Episode Model (NEM), originally proposed in 1991, is designed to better capture the experience of seeking treatment for mental illness. The NEM views help seeking behavior as a phenomenon assigned meaning within social networks. The model originally highlighted the dynamics of the illness career and the importance of social networks in shaping health care outcomes. Social interactions give the initial sources of normative meaning and individual reactions (Pescosolido 1992, 2011). In the earlier conceptualization it was illustrated that individuals experience multiple pathways to mental health treatment, falling into the three broad categories of: (1) choice; (2) coercion; and (3) muddling through. The first two may be self-explanatory, individuals choose to enter treatment because they recognize a problem or they are forced into treatment because those around them recognize a problem. The category of muddling through is less clear and refers to individuals who neither actively seek out treatment nor actively reject it, they simply somehow end up in treatment (Pescosolido et al. 1998a). These different trajectories illustrate that the interpretation of symptoms and what should be done about them is embedded in the community where both the individual experiencing the problem and those around him/her attempt to make sense of what is going on.

It is established that social networks matter for what we do when we encounter illness, yet research has found contradictory results. Some have shown that they accelerate entry into mental health treatment (Kadushin 1966; McKinlay 1972), while others show that they delay or deter use of such services (Horwitz 1977). To better understand how social networks matter, the Network Episode Model highlights not only the importance of the size and structure of social networks, but also the cultural context of the networks themselves. That is, to fully understand how and why social networks matter, we must understand the ideas, beliefs, and values that individuals connected through networks hold about issues of health, illness and healing. To test this idea, Pescosolido and colleagues (1998b) looked at the impact of large social networks on utilization of mental health services in Puerto Rico and found that larger networks delayed or deterred help-seeking. This finding can only be understood through knowledge of the cultural context of Puerto Rico. The population consists of lower-class individuals of an ethnic minority, characteristics often related to less positive views about mental health services. Therefore, it is not surprising that knowing many individuals that hold such attitudes and beliefs results in a lower likelihood of entering services, as treatment is not considered a logical response to the situation.

Despite these early insights about the importance of the cultural context to understand illness behavior, researchers have only recently begun to unpack what culture means within utilization research. While this has long been of interest to medical sociologists, they usually focus on major social categories (e.g. race/ethnicity) as proxies for culture. Here, researchers point to language as a “carrier of culture” (Bernal et al. 1995) and argue that ethnicity and language, at least in part, capture cultural characteristics (Takeuchi et al. 1999). For example, language and cultural issues of “face” predict utilization for Filipino Americans (Gong et al. 2003) and adherence to Asian cultural values decreases likelihood of using counseling (Kim and Omizo 2003; Lau and Takeuchi 2001). While this research has provided us with important insights into how culture shapes responses to illness, it does not take into account the larger cultural systems that impact such responses.

In response and following the “cultural turn” in sociology, researchers have reframed the key theoretical and methodological issues in health care utilization research (Olafsdottir and Pescosolido 2009; Pescosolido 2011; Pescosolido and Olafsdottir 2010). We argue that individuals use cultural maps to make sense of their health care choices and that we need to consider whole cultural systems of beliefs, attitudes, and values to understand how and why individuals use or do not use services. Individuals mentally evoke different options when they are faced, directly (self) or indirectly (others), with a health problem. While some have multiple locations on their maps (e.g. counselor, medical, doctor and psychiatrist), others have few, or even only one (e.g. doctor). The concept of cultural mapping identifies cultural boundaries by showing how individuals discriminate between different providers in the medical marketplace. The focus has therefore shifted from simply understanding whether individuals endorse particular provider to how they discriminate across culturally “legitimate” sources of care (Olafsdottir and Pescosolido 2009).

Thinking about the relationship between culture and illness responses in this way shows that individuals endorse multiple options simultaneously as would be expected by the Network Episode Model. However, they also clearly discriminate among them and they do so based on cultural attitudes, their evaluation of the situation, and occasionally on their social location. As an example, how serious the situation is perceived does not only provide a clue that treatment is needed, but it results in discrimination where the mental health system is preferred over the general medical system. Counseling may represent the clearest line on the public′s cultural map. When situations are attributed to stressful circumstances, Americans prefer counselors over other options. Finally, the public draws a clear line if violence is anticipated, endorsing psychiatrists over doctors and counselors, and they express the rare cultural preference for hospitalization over visits to psychiatrist when the person may be dangerous toward others (Olafsdottir and Pescosolido 2009).

To conclude, sociologists have been interested in responses to illness for at least the past 60 years and have powerfully demonstrated that culture matters for what we do when we encounter physical and especially mental abnormalities. Our responses are therefore not based on a notion of the “correct” response to illness but are shaped in the community and influenced by the cultural context of those communities.

The Social Construction of Medical Knowledge

A final theme considered is the social construction of knowledge. Again, it is possible to consider medical knowledge to be neutral and simply reflecting reality. Along those lines, changes in how we think about health and illness as well as treatment simply reflect scientific processes, and if they change over time it is because we know more now than we did in the past. However, when these statements are examined through a critical lens, it becomes clear that this is far from the truth. Just as the world is socially constructed, so is the world of medical knowledge. Freidson (1970) was probably the first medical sociologist to articulate how medical knowledge is embedded within particular social and political context (Conrad and Barker 2010). He showed how the medical profession has a set of assumptions about what illness is, partly reflecting biological realities but also the social world. There are multiple interpretations of illness and professional understandings are often at odds with lay understanding of illness. By acknowledging the existence of multiple knowledge systems, it is possible to consider that our definitions of health and illness have components that may have less to do with scientific norms than with various cultural and political agendas.

While medical and lay diagnosis represent two different knowledge system, both have an important impact on how knowledge about health and illness is constructed (Olafsdottir and Pescosolido 2011). Lay impressions of illness are embedded in a broader social context, and rather than representing a concrete disease experience, they allow individuals to make sense of deviations from usual health status in themselves and others (Freidson 1970; Olafsdottir and Pescosolido 2009; Pescosolido 1992, 2011). Or as Jutel (2010: 1084) notes, the lay counterpart represents a first step in whether individuals cast "life's experiences as medical in nature". The consideration of lay beliefs allows for an understanding of how medical knowledge is constructed, both formally within the medical system as well as informally in the community. This is particularly important, as lay beliefs may vary systematically from professional scripts and categorizations of physical and mental illness. For example, research has shown that cancer beliefs held by African American women, regarding effectiveness of treatment, are significantly different than those held by physicians (Gregg and Curry 1994). Feminist scholars have also pointed out how medical realities are shaped by the fact that only one gender has historically had power to define what is normal or abnormal. They suggest that medical discourses and practices may have more to do with existing gender norms than biological realities (Clarke 1998; Ehrenreich and English 1978; Lorber 1997). For example, ideas about women's "proper" place in society are clearly a part of the medical discourse on various health "problems" associated with women, including pregnancy, PMS, childbirth, and menopause (Conrad and Barker 2010).

The notion of gender stereotypes has been found to have profound impact in medical care, resulting in inferior treatment for women when they encounter certain illnesses. McKinlay (1996) provides a powerful example here by showing that the "fact" that women did not experience heart disease until menopause was accepted knowledge within the medical community. He showed that gender differences in heart disease were an artifact of incorrect medical observations. The symptoms that heart disease produced among women were different than in men, leading to a dismissal of it as the explanation and instead attributing the symptoms to stomach problems or even emotional problems. As a consequence of this medical practice, the rates that doctors use to guide their diagnosis process were based on wrong assumptions that then resulted in a wrong diagnosis that continued to support the socially constructed gender rates. Using the sociological imagination, McKinlay changed how medicine viewed gender differences in heart disease by distinguishing between the personal trouble of an individual woman being misdiagnosed and a social issue where we witnessed thousands of women being systematically misdiagnosed due to socially constructed rates that were, at least in part, grounded in a gendered ideology related to medicine where the male body was traditionally viewed as the norm and the female body as deviation from the normal.

More recently, scholars at the intersection of medical sociology and science studies have pointed out the relationship between medical knowledge and the social context in which it is embedded (Conrad and Barker 2010). They point out that our notions of biological disease or biomedical evidence are negotiated and interpreted within a specific social context (Joyce 2008; Timmermans 2007). More specifically, it has been pointed out that the mid-1980s witnessed the birth of a new paradigm, where an inclusion of previously excluded groups (e.g. based on gender and/or race) became important in any medical research. This represented change in medical thinking away from the assumption that it is possible to understand all bodies in the same manner, highlighting the possibility of different disease processes and treatment outcomes across major fault lines in society. While certainly an important step forward, Epstein (2007) shows that this inclusion has the unintended consequence of grounding social categories even more firmly as rooted in biological differences. Through an examination of the process of how this happened, he is able to show that the knowledge that is produced about race and gender has as much to do with social and political conflicts and negotiations, as true differences based on biology.

In sum, studies on medical knowledge illustrate that the construction of such knowledge is embedded within specific social context where certain groups have power to define what is an illness and how it should be treated, whereas other groups are largely or exclusively the subject of the medical gaze (Foucault 1973). Importantly, they underscore that different knowledge systems often clash in the interpretation of disease which has implications for how we understand and respond to health problems in societies.

The Strengths and Weaknesses of Social Constructionism

As a conceptual framework, social constructionism has made important contributions to our understanding of health and illness and it provides an important counterpoint to the largely deterministic approach that medicine has toward disease and illness (Conrad and Baker 2010). While processes of rationality and scientific advancement have provided important contributions to human lives through the past centuries, they have been coupled with a darker side that often goes unnoticed, simply because we have taken for granted that medical innovations represent neutral knowledge and progress for mankind. Yet, we have evidence that some of the major advancement in human health during the 19th century had as much to do with improvements in social conditions, as with innovations in medicine (McKeown 1979; McKinlay 1981). History, however, has often been constructed in a way that gives more credit to medicine and has resulted in a view of medicine as neutral, and medical doctors as scientists committed to solve mysteries related to health and illness.

It can be argued that this has become even more important as the medical landscape has changed. Earlier, it was largely the medical profession who held the power to define and respond to issues of health and illness, although of course the lay referral system has always been an important force shaping people's ideas (Freidson 1970). This was also an era where health problems were less complex and physicians frequently responded to acute, infectious diseases using medical solutions proven effective. Two changes have made it even more important to understand how our ideas about health and illness are embedded within a specific social context. First, there are more stakeholders that attempt to impact our understanding of what health problems are, many who have direct interest in making us believe that our experiences are problematic in one way or another. The pharmaceutical companies provide a key example. Just as the medical profession was simply providing us with better solutions to the physical problems of the past, many view the pharmaceutical companies as simply providing us with better solutions to a wide array of physical and mental health problems. The perspective of social construction helps us understand that while the pharmaceutical companies provide medicine that improve health, they also have a direct interest in selling more of their medication, which shapes the reality that they are invested in protecting and even in some cases creating. Second, the potential health problems that we currently suffer from are more complex than ever before, and some have argued that everything is a potential disease in modern societies. This reality makes a counterpoint to the medical/pharmaceutical perspective more crucial than ever before.

Finally, if sociologists are successful in getting their points through to policymakers, we can improve policymaking in the health care field. Conrad and Baker (2010) illustrate how each domain of the cultural meaning of illness, the illness experience as socially constructed, and medical knowledge as constructed has important policy implications. For example, it can make policymakers realize that the “facts” that are presented to them do not present a concrete reality or even the “best” reality. It remains true that the stakeholders in the health field do not hold equal power in the policy process and claims by some are taken more seriously than others. Medical doctors have often been able to put their perspective forward as the way the world really is, often ignoring the perspective of other professions involved in the same jurisdiction as well as the important perspective of those who are suffering. In addition, an understanding of the world as socially constructed allows us to envision a reality where issues of health, illness, and healing can be understood differently. It is possible to individualize various “problems,” but it is equally possible to view them as a reflection of a larger social problem. For example, we can view the existence of ADHD as a reflection of that some kids are flawed, as bad kids or biologically damaged product, or we can view our school system as flawed in ways that does not allow all children to succeed within the classroom. The way in which this is constructed clearly guides policies on this particular issue and has more general implications.

With every strength comes a weakness and as powerful the perspective of social construction is, it is not without limitations. The most general is perhaps the issue of why we should care that the world is socially constructed? What have we learned if we do not move further to understand and explain how it impacts the actual life of individuals and broader social processes, such as inequality? Within sociology, we are often content to show that certain phenomenon are socially constructed, but fail to address why and how it matters. As an example, numerous studies have provided important insights into how and why particular conditions were medicalized and pointed out the specific forces involved in the medicalization process, but less is known about how this matters for individuals and societies. For example, is medicalization likely to increase or decrease health inequalities? Does medicalization reduce stigma of mental illness? Insights from research that are not particularly focused on social construction can provide some cues into how this may matter. For example, the perspective of fundamental causes of health disparities shows us that those who have more resources can repeatedly transfer them into better health outcomes and services (Link and Phelan 1995). This is partly due to their capabilities of taking advantage of medical solutions as they become available. Yet, as highlighted by medicalization scholars, the process is not always one that results in better health for individuals. An attempt to link together medicalization and health inequalities and outcomes would provide a strong statement for how the construction of what constitutes a health problem has an impact on key outcomes of interest to sociologists.

Similarly, it is possible to consider whether the way in which mental health problems are constructed matter for individuals experiencing such problems. In contrast to the psychiatric perspective, sociology has the power to unveil how our understanding of mental health problems does not simply follow a scientific process, but is embedded in a particular context where interests play as large of a role (Kirk and Kutchins 1992). As a result, we know that certain professions may have more investment in highlighting the biological and/or genetic approach to mental illness. But we also know that many mental health problems are rooted in the social environment and the public endorses a wide array of social, biological, and individual causes of mental illness (Martin et al. 2000). While it is important to understand the multiple understandings of mental illness across professionals and the lay public, as well as how these understandings are shaped by interest, we also want to know how these attributes translate into the lives of individuals. An important study by Phelan (2005) provides evidence that public understanding of what mental illness is matters for stigma. In particular, those individuals who believe that mental illness are caused by genes are more likely to stigmatize the sibling of the individual, indicating that such attribution may move us away from a model where something is not only problematic with the individual experiencing mental illness, but also close family members. Research that pushes us to not only show that many of our taken-for-granted assumptions are viewed in such a way because a particular group of individuals have believed them for a long time but that they have consequences for individuals and societies, are all the more powerful than research that simply points out that a wide array of things we take for granted are socially constructed.

Finally, while the perspective of social construction provides an important correction to biological essentialism, it is important that we do not embrace a similarly narrow social essentialism. The debate of nature versus nurture has largely been settled with many agreeing that we need to think about nature and nurture as complementary (Pescosolido et al. 2008), yet some sociologists are skeptical of too close a collaboration with medical doctors and natural scientists focusing on biological roots of illness. While understandable, this standpoint can be dangerous to the field of medical sociology, as cutting-edge research across multiple fields (e.g. medicine, sociology, public health) shows that a large proportion of the dominant illnesses are rooted simultaneously in social, psychological, and biological factors. This provides a unique opportunity as those interested in health and illness from a biological standpoint cannot ignore the importance of social factors, but without direct participation we allow them to trivialize it and rely on faulty measures, as their training is not in understanding the social world. As a consequence, it is important for sociologists to step up to the plate and continue to show the power of social factors in shaping our understandings of health, illness, and healing. Current realities do not allow us to do that from a pure social constructionist standpoint, rather we must take into account current knowledge about the complex realities of health and illness in advanced, industrialized nations, such as the United States.

Illustrating Social Construction: The Power of Cross-National Comparisons

As originally pointed out by Berger and Luckman (1967), the way in which societies are organized and social life is understood quickly becomes a part of who the individual is and how he or she understands the world. That is, even though certain actions and decisions by individuals originally determine how we understand a wide array of social phenomenon and how we provide and organize major social institutions (e.g. education, health care, correctional facilities), this “reality” becomes taken for granted overtime in a way that any other understanding or arrangements seem impossible. While there are many ways to illustrate that other realities are possible, a cross-national perspective is especially powerful in showing how ideas and responses within one cultural context appear strange or even impossible in another cultural context. Yet, individuals happily go about their daily business in both contexts, never wondering if the world could somehow be better, or even different. Issues of health, illness, and healing are no exception as they simultaneously reflect biological and scientific realities and cultural adaptations and understandings.

A cross-national perspective clearly illustrates the power of cultural meanings of illness and perhaps especially mental illness. Depression can serve as an example here, as one of the conditions that has greatly increased in prevalence overtime and has been declared as one of the leading global causes of disability (Murray and Lopez 1996). This development can partly be explained as Western, biomedical criteria (especially DSM III) are applied to multiple contexts. Therefore, new understandings of depression within a context may have more to do with how mental health is understood within a specific scientific community, as compared to changes where a larger proportion of the population across countries is biologically vulnerable to depression. Here, Lutz (1985) has pointed out that Western psychologists often view the failure to look for happiness as a symptom of depression, yet the desire for happiness is not natural, but a culturally constructed goal. Similarly, Kleinman and Good (1985) argue that a universal experience of depression is unfounded. While some work has indicated that ideas about depression (and other illnesses) travel across national boundaries, research focusing on how global biomedical models of illness are adopted, rejected or modified at the local level can give us insights into the relationship between medical knowledge and cultural understandings of illness.

What is considered normal and abnormal is different across groups and places within a single society, but a comparison across nations can illustrate this even more profoundly. For example, we can ask whether specific social behaviors and emotions are constructed in the same manner across societies and attempt to explain the variations in understanding across nations. In addition, a cross-national perspective adds to our understanding of labeling and stigma by considering how these processes may operate similarly or differently across context. For example, Olafsdottir (2011) shows that the cultural images associated with mental illness vary systematically across the U.S., Germany, and Iceland. As expected, and often discussed, the overarching picture provided in the U.S. is that individuals experiencing mental illness are dangerous and to be feared. A single society examination may lead to the conclusion that mental health problems are strongly embedded in a culture of fear, yet the analysis from the other two countries shows a different picture. At least partly reflecting the social organization of welfare, the Icelandic context illustrates a culture of solidarity, where mental illness is social in nature and it is the responsibility of society to do something about them both in terms of providing solutions as well as creating society that is more beneficial to mental health. Similarly, the German context is embedded in a specific historical trajectory where the events of World War II have constructed a careful discourse that avoids blame making and highlights the importance of learning from history and never go back to the cruel realities of that period.

Turning to responses to illness, not surprisingly they are embedded within a specific cultural context. An examination of public attitudes in countries that all adhere to similar biomedical understanding of schizophrenia shows that public responses vary, both in terms of lay recognition of schizophrenia as well as appropriate responses. The public, in this sample of advanced, industrialized nations, largely recognizes schizophrenia as mental illness in general, but not schizophrenia in particular and the level of recognition varies drastically (Olafsdottir and Pescosolido 2011). Similarly, there is a cultural variation in what the public believes should be done about the problem and how effective treatment would be. Importantly, cross-national differences do not only reflect different responses in terms of what individuals do when they encounter illness, but also in what kind of treatment is provided and importantly paid for. Sociologists have pointed out how changes in the reimbursement system within the U.S., impacts what choices are available to doctors when they treat patients (McKinlay 1996) and this is likely to be even more prominent when examined in a cross-national perspective. Research focusing on what kind of treatments are provided and reimbursed across different societies, in addition to an understanding of how individuals use services and conceptualize the problem, has the potential to add to our understanding of the relationship between culture and responses to illness.

Finally, there is a relationship between culture and medical knowledge. The obvious differences are across what often is labeled as alternative and scientific medicine, but even among nations that adhere to the same biomedical model, differences are observed. As an example, how frequently women are expected to have a cervical cytology varies across countries, as do norms of whether screening for prostate cancer represent a useful strategy to improve men's health at the population level. Of course, it can be argued that countries with more extensive screening are doing a better job, yet that does not translate into population health. In many cases, screening is more frequent in the United States, where health outcomes are still lagging behind most advanced, industrialized nations. And contrasting the United States and Japan, where the latter would have a greater reliance of alternative sources of care, reveals that the Japanese do better on various health outcomes, including life expectancy, that are among the highest in the world. Research that can trace how the cultural context of medical knowledge varies across context, with an attention of how it matters for the health profile of populations is especially valuable to understand the social realities of medicine and how medical knowledge does not merely reflect superior scientific knowledge.

Conclusion

Sociology has an important role in providing a counterpoint to the predominant biological and medical approaches to health and illness. As this chapter has illustrated, the social matters for virtually every aspect of health, illness, and healing. Our understandings of illness and responses are embedded in the community and knowledge is created by individuals with specific background, orientation, and interest, highlighting that social factors play not simply a complementary, but a critical role. This role has perhaps never been more important, as the disease profile of societies has become more complex and it is clear that it is impossible to respond to health problems without a serious consideration of how they are embedded within specific cultural contexts. In addition, sociologists have brought issues such as power and interest to the forefront of how we understand and respond to health problems, acknowledging the important role that medicine and the pharmaceutical industry play in responding to illness, while pointing out the dangers associated with too much reliance on professions and corporations, that in the end, have enormous gains associated with a specific understanding of health and illness in contemporary societies. Consequently, the sociological imagination that allows us to connect the society to the individual has perhaps never been more important and holds a power to provide a crucial counterpoint to the biological approach, often assuming that there is a concrete "reality" to our illness and responses to it.

References

Andersen, R. (1968). *Behavioral model of families' use of health services. Center for Health Administration*. Chicago: University of Chicago.

Andersen, R. (1995). Revisiting the behavioral model and access to medical care: does it matter? *Journal of Health and Social Behavior, 36*, 1–10.

Becker, H. (1963). *Outsiders: Studies in the sociology of deviance*. New York: Free Press.

Berger, P. L., & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City: Doubleday.

Bernal, G., Bonilla, J., & Bellido, C. (1995). Ecological validity and cultural sensitivity for outcome research: issues for the cultural adaptation and development of psychosocial treatments with hispanics. *Journal of Abnormal Child Psychology, 23*, 67–82.

Burr, V. (1995). *Social constructionism*. New York: Routledge.

Chapple, A., Ziebland, S., & McPherson, A. (2004). Stigma, shame, and blame experienced by patients with lung cancer: qualitative study. *BMJ,*. doi:10.1136/bmj.38111.639734.7C. (published 11 June 2004).

Clarke, A. E. (1998). *Disciplining reproduction: Modernity, American life sciences, and "The Problems of Sex"*. Berkeley: University of California Press.

Clarke, A. E., Mamo, L., Fishman, J. R., Shim, J. K., & Fosket, J. R. (2003). Biomedicalization: technoscientific transformations of health, illness, and U.S. biomedicine. *American Sociological Review, 68*, 161–194.

Conrad, P. (1992). Medicalization and social control. *Annual Review of Sociology, 18*, 209–232.

Conrad, P., & Barker, K. K. (2010). The social construction of illness: key insights and policy implications. *Journal of Health and Social Behavior, 51*, S50–S79.

Conrad, P., & Leiter, V. (2004). Medicalization, markets and consumers. *Journal of Health and Social Behavior, 45*, 158–176.

Conrad, P., & Schneider, J. W. (1992). *Deviance and medicalization: From badness to sickness*. Philadelphia: Temple University Press.

Ehrenreich, B., & English, D. (1978). *For her own good: 150 Years of the experts' advice to women*. Garden City: Doubleday.

Eisenberg, L. (1977). Disease and illness: distinctions between professional and popular ideas of sickness. *Culture, Medicine and Psychiatry, 1*, 9–23.

Epstein, S. (2007). *Inclusion: The politics of difference in medical research*. Chicago: The University of Chicago Press.

Figert, A. E. (1996). *Women and the ownership of PMS: The structuring of a psychiatric disorder*. Hawthorne: Aldine De Gruyter.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading: Addison-Wesley.

Foucault, M. (1965). *Madness and civilization: A history of insanity in the age of reason*. New York: Pantheon Books.

Foucault, Michel. (1973). *The birth of the clinic: An archaeology of medical perception*. New York: Vintage Books.

Freidson, E. (1970). *Profession of medicine: A study of the sociology of applied knowledge*. New York: Harper & Row.

Goffman, E. (1961). *Asylums: Essays on the social situation of mental patients and other inmates*. Garden City: Doubleday.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs: Prentice Hall.

Gong, F., Gage, S.-J., & Tacada, L. A. (2003). Help-seeking behavior among Filipino Americans: a cultural analysis of face and language. *Journal of Community Psychology, 31*, 469–488.

Gove, W. R. (1970). Societal reactions as an explanation of mental illness: an evaluation. *American Sociological Review, 35*, 873–884.

Gove, W. R. (1975). Labeling and mental illness. In W. Gove (Ed.), *The labeling of deviance: Evaluating a perspective* (pp. 35–81). Halsted: New York.

Gregg, J., & Curry, R. H. (1994). Explanatory models for cancer among African-American women at two Atlanta neighborhood health centers: the implications for a cancer screening program. *Social Science and Medicine, 39*, 519–526.

Horwitz, A. (1977). Social networks and pathways to psychiatric treatment. *Social Forces, 56*, 86–105.

Jayasuriya, L. (1992). The Problematic of culture and identity in social functioning. *Journal of Multicultural Social Work, 2*, 37–58.

Joyce, K. (2008). *Magnetic appeal: MRI and the myth of transparency*. Ithaca: Cornell University Press.

Jutel, A. (2010). Framing disease: the example of female hypoactive sexual desire disorder. *Social Science and Medicine, 70*, 1084–1090.

Kadushin, C. (1966). The friends and supporters of psychotherapy: on social circles in urban life. *American Sociological Review, 31*, 786–802.

Kaiser, K. (2008). The meaning of the survivor identity for women with breast cancer. *Social Science and Medicine, 67*, 79–87.

Kim, B. S. K., & Omizo, M. M. (2003). Asian cultural values, attitudes toward seeking professional psychological help, and willingness to see a counselor. *The Counseling Psychologist, 31*, 343–361.

Kirk, S. A., & Kutchins, H. (1992). *The selling of DSM: The rhetoric of science in psychiatry*. New York: Aldine de Gruyter.

Kleinman, A. (1980). *Patients and healers in the context of culture: An exploration of the borderland between anthropology, medicine, and psychiatry*. Berkeley: University of California Press.

Kleinman, A., & Good, B. J. (Eds.). (1985). *Culture and depression: Studies in the anthropology and cross-cultural psychiatry of affect and disorder*. Berkeley: University of California Press.

Lau, A., & Takeuchi, D. T. (2001). Cultural values in helpseeking for child behavior problems: value orientation, affective responding, and severity appraisals among Chinese American parents. *Journal of Community Psychology, 29*, 675–692.

Link, Bruce G. (1982). Mental patient status, work, and income: an examination of the effects of a psychiatric label. *American Sociological Review, 47*, 202–215.

Link, B. G. (1987). Understanding labeling effects in the area of mental disorders: an assessment of the effects of expectations of rejection. *American Sociological Review, 52*, 96–112.

Link, B. G., & Phelan, J. C. (1995). Social conditions as fundamental causes of diseases. *Journal of Health and Social Behavior*, *36*(*Extra issue*):80–94.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology, 27*, 363–385.

Link, B. G., Cullen, F. T., Struening, E., Shrout, P., & Dohrenwend, B. P. (1989). A modified labeling theory approach in the area of mental disorders: an empirical assessment. *American Sociological Review, 54*, 400–423.

Lorber, J. (1997). *Gender and the social construction of illness*. Thousand Oaks: Sage.

Lutz, C. (1985). Depression and the translation of emotional worlds. In A. Kleinman & B. J. Good (Eds.), *Culture and depression: Studies in the anthropology and cross-cultural psychiatry of affect and disorder* (pp. 63–100). Berkeley: University of California Press.

Martin, J. K., Pescosolido, B. A., & Tuch, S. A. (2000). Of fear and loathing: the role of 'disturbing behavior', labels, and causal attributions in shaping public attitudes toward persons with mental illness. *Journal of Health and Social Behavior, 41*, 208–223.

Martin, J. K., Pescosolido, B. A., Olafsdottir, S., & McLeod, J. D. (2007). The construction of fear: Americans' preferences for social distance from children and adolescents with mental health problems. *Journal of Health and Social Behavior, 48*, 50–67.

McKeown, T. (1979). *The role of medicine: Dream, mirage, or nemesis?*. Princeton: Princeton University Press.

McKinlay, J. B. (1972). Some approaches and problems in the study of the use of services—an overview. *Journal of Health and Social Behavior, 13*, 115–152.

McKinlay J. B. (1981). Refocusing upstream. In P. Conrad and R. Kern (Eds.), *The sociology of health and illness*. New York: St. Martin's Press.

McKinlay, J. B. (1996). Some contributions from the social system to gender inequalities in heart disease. *Journal of Health and Social Behavior, 37*, 1–26.

Moynihan, R., & Cassels, A. (2005). *Selling sickness: How the World's biggest pharmaceutical companies are turing us all into patients*. New York: Nation Books.

Murray, C. J. L., & Lopez, A. D. (Eds.). (1996). *The global burden of disease*. Cambridge: World Health Organization.

Muzzin, L. J., Anderson, N. J., Figueredo, A. T., & Gudelis, S. O. (1994). The experience of cancer. *Social Science and Medicine, 38*, 1201–1208.

Olafsdottir, S. (2011). Medicalization and mental health: the critique of medical expansion, and a consideration of how National States, markets, and citizens matter. In D. Pilgrim, A. Rogers, & B. A. Pescosolido (Eds.), *The SAGE handbook of mental health and illness* (pp. 239–260). London: Sage Publications.

Olafsdottir, S., & Pescosolido, B. A. (2009). Drawing the line: the cultural cartography of utilization recommendations for mental health problems. *Journal of Health and Social Behavior, 50*, 228–244.

Olafsdottir, S., & Pescosolido, B. A. (2011). Constructing illness: how the public in eight western Nations responds to a clinical description of Schizophrenia. *Social Science and Medicine, 73*, 929–938.

Pescosolido, B. A. (1992). Beyond rational choice: the social dynamics of how people seek help. *American Journal of Sociology, 97*, 1096–1138.

Pescosolido, B. A. (2011). Organizing the sociological landscape for the next decades of health and health care research: the network episode model III-R as cartographic subfield guide. In B. A. Pescosolido, J. K. Martin, J. D. McLeod, & A. Rogers (Eds.), *Handbook of the sociology of health, illness, and healing: A blueprint for the 21st century* (pp. 39–66). New York: Springer.

Pescosolido, B., & Olafsdottir, S. (2010). The cultural turn in sociology: can it help us resolve an age-old problem in understanding decision-making for health care? *Sociological Forum, 25*, 655–676.

Pescosolido, B. A., Brooks-Gardner, C., & Lubell, K. M. (1998a). How people get into mental health services: stories of choice, coercion and 'muddling through' from 'first-timers'. *Social Science and Medicine, 46*, 275–286.

Pescosolido, B. A., Wright, E. R., Alegria, M., & Vera, M. (1998b). Social networks and patterns of use among the poor with mental health problems in Puerto Rico. *Medical Care, 36*, 1057–1072.

Pescosolido, B. A., Perry, B. L., Scott Long, J., Martin, J. K., Nurnberger, J. I., Jr, & Hesselbrock, V. (2008). Under the influence of genetics: how transdisciplinarity leads us to rethink social pathways to illness. *American Journal of Sociology, 114*, S171–S201.

Phelan, J. C. (2005). Geneticization of deviant behavior and consequences for stigma: the case of mental illness. *Journal of Health and Social Behavior, 46*, 307–322.

Rosenhan, D. L. (1973). On being sane in insane places. *Science, 179*, 250–258.

Rosenstock, I. M. (1966). Why people use health services. *Milbank Memorial Fund Quarterly, 44*, 94–106.

Scheff, T. J. (1966). *Being mentally ill: A sociological theory*. Chicago: Aldine Publishing Company.

Scheff, T. J. (1974).W The labeling theory of mental illness. *American Sociological Review, 39*, 444–452.

Sontag, S. (1978). *Illness as a metaphor*. New York: Farrar, Straus and Giroux.

Spector, M., & Kitsuse, J. (1977). *Constructing social problems*. Menlo Park: Cummings.

Straus, R. (1957). The nature and status of medical sociology. *American Sociological Review, 22*, 200–204.

Szasz, T. S. (1961). *The myth of mental illness: Foundations of a theory of personal conduct*. New York: Dell Publishing Company.

Takeuchi, D. T., Edwina, S. U., & Maramba, G. (1999). Cultural diversity and mental health treatment. In A. V. Horwitz and T. L. Scheid (Eds.), *The sociology of mental health and illness* (pp. 550–565). Cambridge: Cambridge University Press.

Timmermans, S. (2007). *Postmortem: How medical examiners explain suspicious deaths*. Chicago: The University of Chicago Press.

Zola, I. K. (1972). Medicine as an institution of social control. *Sociological Review, 20*, 487–504.

Chapter 4
Statecraft and Soulcraft: Foucault on Prolonging Life

Alex Dumas and Bryan S. Turner

This chapter presents a brief overview of the importance that prolongevism, the social movement based on the popular ideology that life can be prolonged more or less indefinitely by modern medical interventions, has taken in society by critically evaluating its objectives and its social and personal consequences. In developing this analysis we will primarily refer to the works of Michel Foucault and to other scholars who have applied his theory to the human body. Although Foucault's work has had a significant impact on sociology, including the sociology of health and illness, his relevance to the study of ageing and the life-extension project has yet to be fully explored.

The Life Extension Project

Academic interest in the human body in the last three decades can be interpreted as an intellectual response to social change between bodies, technology, and society. Scientific advances in medical sciences, especially genetics, new reproductive technologies, stem-cell research, rejuvenation medicine and cloning techniques, have given the human body a problematic position in social, political, and cultural affairs. There are a number of difficult political and legal issues relating to the

---

A. Dumas (✉)
University of Ottawa, Ottawa, Canada
e-mail: adumas@uottawa.ca

B. S. Turner
The Graduate Center City University of New York, New York, NY, USA
e-mail: bturner@gc.cuny.edu

B. S. Turner
University of Western Sydney, Campbelltown, Australia

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_4,

body such as the global market for the sale of organs for transplants, sex selection of children, performance enhancement procedures, privatization of health care, cosmetic surgery and many others. We argue in this chapter that one of the most radical changes in human society concerns the increase in life expectancy in the developed world, and the emergence of various anti-ageing movements radically to increase life expectancy that we broadly describe here under ‘the life extension project’. For many bio-gerontologists in the life-extension movement—commonly known as prolongevism—ageing, disease and death no longer appear to be necessary, immutable facts about the human condition, but simply contingent and, therefore, -or-, and therefore malleable, features of human existence. Quite simply the longevity project of rejuvenative medicine proposes that death is avoidable with the appropriate medical interventions. In the future envisioned by the prolongevists, the main cause of ‘premature’ or ‘avoidable’ death in advanced economies would no longer be cancer, stroke, or heart disease, but ‘accidental death’ from car accidents, domestic violence or urban terrorism.

Of course any of the medical techniques that promise a long life extension—such as technologies or strategies for engineered negligible senescence aimed to slow down the ageing process—are still at an early experimental stage, but aspects of these technologies are already beginning to influence our lives in various ways. Alongside these questionable developments, there is now an array of procedures ranging from heart transplants to cosmetic surgery that are now simply routine features of the maintenance and management of the body to stave off what were the routine processes of bodily decay with normal ageing.

Modern forms of prolongevism are positioned within the field of human enhancement because they are considered as another way to enhance and optimize the human body through biotechnology. They imply bioethical issues about the integrity of the natural life span, moral issues about that value of human life, sociopolitical issues relating to health care and issue related to the quality of life. Prolongevism can also be tied to anti-ageing, that is, a series of practices aiming at dissimulating the visible effects of ageing, to countering or reversing cognitive degeneration, at avoiding functional loss and to preventing age related diseases (Vincent, Tulle and Bond 2008). In this sense, it encompasses both institutional and individual dimensions.

Anti-ageing and life extension predictions have generated new hope for the future that are transforming the present by marshaling resources, transforming scientific understanding of ageing and challenging previous objectives of biomedicine (Mykytyn 2010). Although it remains a medical utopia, it is a powerful metaphor to explain many social and personal problems that we are witnessing with the ageing of the population. The scientific and ethical debates related to these technical developments raise a number of important issues on the status of old age and ageing that are challenging social solidarity and the well being of older adults. They also raise challenging questions about how long bodies can survive, what is the normal human lifespan, who should have access to such technology and what social consequences will arise from a radical extension of life. Medical sociology—indeed sociology as a whole—has yet to incorporate these changes into its theoretical repertoire.

According to the seminal work of Gruman (1966, p. 75), most of the schools of 'prolongevism' before the seventeenth century were founded on religious beliefs; prolongevity was possible because the Old Testament regarded longevity as the inheritance of the righteous. It was the loss of spiritual purity with the evolution of humanity away from its pristine condition that had caused this decline from natural longevity. During the Enlightenment this view was strongly contested by the secular idea of scientific progress. Writers like Condorcet argued that with the application of medical science and the creation of social justice, longevity could be enjoyed by all citizens. Since the eighteenth century, the promise of science has not changed significantly; it has brought a message of hope, improvement and increased control over the vulnerable body. Scientific progress has opened the door for further research on anti-ageing. For instance, the Human Genome Project, stem-cell research and biomedical engineering have generated new hope of prolonging life, reducing morbidity and managing psychological illness in old age. Today's prolongevism is secular and scientific, whereas in the past, ideas about extending life had obvious spiritual and supernatural presuppositions (Gruman 1966, p. 5).

Between the 1960 and 1980s the conventional view of mainstream biology was that normal cells had a finite existence ('replicative senescence'), that is, normal tissues can only divide a finite number of times before entering inevitably into a stage of quiescence. Cells were observed in vitro in a process of natural senescence, but eventually experiments in vivo produced a distinction between normal and pathological cells in terms of division. Pathological cells appeared to have no necessary limitation on replication, and 'immortalization' was thus the distinctive feature of a pathological cell line. Biologists came to the conclusion that finite cell division meant that the ageing of the whole organism was inevitable. As a consequence, these findings confirmed the traditional view that human life had an intrinsic and predetermined limit, and it was the discourse of pathology that described how certain cells might out survive the otherwise inescapable senescence of cellular life.

This framework of ageing was eventually overturned by scientists who managed to isolate human embryonic cells that were capable of continuous division in culture thereby showing no sign of the replicative crisis. Certain non-pathological cells (or stem cells) were capable of indefinite division, and hence were 'immortalized'. The cultivation of these cells as an experimental form of life has challenged conventional assumptions about the boundaries between the normal and the pathological, and between life and death. Stem-cell research begins to define the arena within the body that has reserves of renewable tissue, indicating that the limits of biological growth are not fixed or inflexible. The body has a surplus of stem cells capable of survival beyond the actual death of the organism. With these developments in bio-gerontology, the capacity of regenerative medicine to expand the limits of life becomes a plausible and profitable prospect for modern medicine. This interpretation of replication locates ageing as a shifting site between surplus and waste, between obsolescence and renewal, creating utopian visions of everlasting life on earth to challenge and replace theological views of everlasting life in heaven.

Two main questions now dominate current debates on the life-extension project: can we ‘and should we’ significantly enhance the human life span? The first part of the question stems mainly from the field of biomedical sciences, concentrating on the feasibility of engineering a method capable of prolonging life, on the protection of consumers from quackery, and on maintaining the credibility of biomedical science.

Foucault: Rethinking the Sociology of Ageing

The emergence of the body as a topic of research in the humanities and social sciences can be interpreted as a response to these technological and scientific changes, and to a range of diverse social movements that have been associated with them such as the women’s movement, environmentalism, animal-rights movements, anti-globalism, religious fundamentalism and conservative politics. More importantly, the human body can now be regarded as an important component of economic growth as a consequence of the application of biotechnology to the body; disease is no longer simply a constraint on the productivity of labor because its management has become a productive factor in the new economy. For example, many Asian societies such as Thailand and Singapore offer medical services to foreigners as part of a tourist package. Malaysia has a growing number of retirement villages for elderly Japanese patrons who require leisure activities, especially golf, combined with life-enhancement medicine. The body has become a code or system of information that can now generate huge profits through patents rather than merely through the sale of actual body parts. The sociology of the body has consequently enjoyed significant growth and increasing attention over the last three or four decades, culminating ‘for example’ in 2009 with recognition by the American Sociological Association of ‘the body and embodiment’ as an area of professional growth and academic relevance.

There was also a growing interest in what we might call sociological precursors whose work ‘in retrospect’ was seen to be significant in re-framing academic interest in various aspects in the political economy, regulation and social construction of ageing. To that effect, social sciences are beginning to consider new ways of conceiving age and ageing within this dynamic biotechnology environment. Many of these developments are connected to medical innovation but they also reflect the growth of consumerism not just for the young but also through the life cycle. Many of the problems associated with this new bio-consumerism have been described in terms of a ‘somatic society’ (Turner 1992), which defines a situation in which the major social and political questions of our era are expressed through the problematic character of modern human embodiment. Obesity and anorexia, infertility and incontinence, irritable bowel disease, erectile dysfunction, left-handedness, premature menopause, stress, short stature and so on have all been identified as modern corporeal troubles that are interpreted as having deeper causes in the malaise of modern civilization. With respect to technologies of ageing and life extension, the regulation of the body is inscribed in a politics of life itself (Rose 2007). From this point of view, the fusion between government, biomedical institutions and commercialization represents a recent orientation of ageing sciences.

Michel Foucault came to be regarded as a dominant influence in late twentieth-century historical and sociological approaches to the human body, and specifically to questions of governmentality. The common theme to *Discipline and Punish* (1977) and *History of Sexuality* (1979) was how the body as the object of penal repression eventually gave way to more subtle and implicit techniques for its normalization. This was analyzed in terms of the 'political technology of the body' (Foucault 1977, p. 24). Through careful management and surveillance and through ever more detailed means of bodily management "discipline produces subjected and practiced bodies, 'docile' bodies" (Foucault 1977, p. 138). His research on sexuality, medicine and discipline gave rise to a general theory of the government of the body (Turner 1984). The distinction between the discipline of the individual body ('the anatomo-politics of the body') and regulatory controls ('a bio-politics of the population') in *The History of Sexuality* (1979) stimulated a general sociological investigation of 'governmentality' (Burchell et al. 1991). Significant intellectual developments were stimulated by English translations of the work of Foucault such as, *The History of Sexuality* in 1981. Subsequent publications of his lectures at the College de France from the early 1980s including *The Hermeneutics of the Self* have only served to reinforce his importance in the debate on the body and techniques of the self. Gordon (1980, p. 246) provided a useful summary of Foucault's theoretical contribution under three headings, namely "certain forms of explicit, rational, reflected *discourses*; that of certain non-discursive social and institutional *practices*; and that of certain *effects* produced within the social field". In sociological terms, we might summarize these 'general orders of events' as ideologies, institutions (or institutional practices) and their unintended consequences.

Foucault's analysis of the human body was an attempt to show that the 'body' was a contingent effect of the exercise of power rather than a given fact of nature. In his *Technologies of the Self*, there is the claim that "[a]ll of my analyses are against the idea of universal necessities in human existence. They show the arbitrariness of institutions" (Foucault 1988a, p. 11). The legacy of Foucault stands firmly in the way of any notion of natural necessities or a shared biological fate. In this sense, the normalization and the social construction of the ageing body is an outcome of bio-political strategies and further indication that there is no such thing as 'natural phenomena' existing outside the social for Foucault.

Foucault's biopolitics of populations marked a transformation of the government of individuals through disciplinary practices to a government of populations though the political management of health, hygiene, diet, sexuality, and natality (Foucault 2008). This notion was useful in describing the shift from an anatomo-politics of the body (disciplines applied to individuals) to a biopolitics of populations (biopolitics applied to populations), a ‘social medicine’ that can be applied to the populations in order to govern life (Foucault 2007).

Foucault’s notions of governmentality and bio-politics are examples of the ways in which he thought about the exercise of power over bodies and populations. He argues for instance, that the current forms of liberal and democratic government in the West have modified the role of the state. With the rise of neo-liberalism (often referred to in the United States as ‘neo-conservatism’) power is more diffuse and involves complex interaction with various forms of dominant institutions (Foucault 2008).

One of the key contributions of Foucault in this context has been to historically situate discursive spaces in which a particular politics is taking place. What are the specific concerns about the human body within a specific historical period and how and why are they related to a specific form of government? Discourses on life are associated with forms of disciplinary knowledge (physiology, nutrition, biogerontology) that are constructing a new type of regulation of the body through economy, demographics, politics and health care.

Foucault’s theory applied to the body and population has also had some effect on the study of age and ageing. This area of sociological inquiry has traditionally been dominated by social gerontology and geriatric medicine, which have had a primarily applied interest in ageing, seeking practical policy solutions to the problems faced by ageing individuals. The sociology of ageing has more recently been concerned to regard ageing within the framework of social constructionism. Age and ageing are regarded as socially constructed categories that typically have the effect of limiting the enjoyment of social rights to people who are arbitrarily allocated to categories that are prejudicial. *Gerontology and the Construction of Old Age* (Green 1993) illustrates this approach. The sociology of disability and the sociology of ageing have had similar intellectual developments in which both claim that disability and impairment represent a loss of social rights rather than a loss of bodily functions. Sociologists have also applied Foucault’s theoretical apparatus to the analysis of ageing in terms of the disciplining of old age (Katz 1996). The social construction of changes in the ageing process was also studied through literary and artistic representations of age, for example in *Stories of Ageing* (Hepworth 2000). In ‘Foucault and Ageing’, Powell and Wahidin (2006) have presented a collection of essays in the history of regulation of ageing bodies that has described the ageing body as a representation of power (or lack of), the loss of individual rights, the demographical and economic problem of dependency and as the classificatory, evaluative and hierarchal mechanisms that is regulated by political interventions.

In this chapter, we approach the issues of prolongevism through an examination of the life-extension project from the perspective of Foucault’s social theory. We propose to interpret Foucault’s work on governmentality from the perspective of classical political theory, which can be said to have combined two dimensions of politics—statecraft and soulcraft. The former refers more precisely to the biopolitics of populations, to the practices or skills that are necessary for the management of the *polis*. What are the virtues (excellence in Greek discourse) of the sovereign that are necessary for managing the state? The latter refers, in a parallel fashion, to individual subjectivities, the virtues that are necessary for the management of the soul. Foucault's work on biopolitics can be seen as an analysis of statecraft as it emerged with the administrative state of modernity. In his work on disciplines and sexuality in the ancient world, we can say that he is undertaking an examination of how the soul was to be cultivated in order to manage the self (through a government of the self or practices of self care). In short, Know thyself!

We consider these issues by drawing on Foucault's later work because it raises questions that are relevant to the study of the government of the ageing body (Cutro 2010)—how can we historically situate our current understanding of ageing? How are ageing populations governed through various discourses (statecraft)? How are we able to structure a relation to self in the context of ageing (soulcraft)? One of our concerns is that much of the literature on life extension does not take the political economy of ageing seriously, focusing mainly on longevity from the perspective of individuals. The immediate acceptance of prolongevity is falsely based on the implicit assumption of ceteris paribus—social scientists have shown however that not all things are always equal. We believe that sociological (and other approaches) to old age and ageing have to be radically re-conceptualized given the revolution taking place in the medical sciences that relate to the basic issues of cell development. The social implications of the actual or possible applications of cloning, stem-cell research, and cryonics to human life are profound.

Of course Foucault has had relatively little to say about the 'problem' of ageing and anti-ageing and indeed one reason for this absence is that the demographic problem of ageing is a relatively modern problem, emerging in the late twentieth century primarily in the northern hemisphere. It is essentially an economic problem in that it relates to such issues as employment, retirement and pensions. The 'burden' of ageing is a problem of all mature economies. In his late research Foucault was more and more concerned with the ancient world and with early Christianity. In the social world of ancient Greece and Rome, there was no demographic problem of the burden of ageing. In the warrior societies of the ancient world, there were relatively few old men to burden the economy and the *polis*. In the case of early Christianity, its theological focus was on life after death rather than with the social and philosophical problems presented by life expectancy. In addition, of course, many of the technical changes relating to the applications of medical science to ageing had not surfaced during Foucault's lifetime. As George Steiner (1996, pp. 2–3) has observed, the notion of tragedy in Greek drama involved *fatum*—the heroic but ultimately futile struggle against the invisible and unchanging constraints of nature and necessity, which likewise constrained the gods. The idea that human life could be extended indefinitely (including the lives of people without any virtue) would have been the ultimate hubris. In our post-heroic world, the invisible and unchanging constraints of nature are being slowly dismantled, but we do not yet know what our *fatum* might be.

The Problematization of Ageing

The production of discourses on old age by medical institutions has been expressed through a 'discourse of senescence' describing the symptoms associated with the ageing body, its diseases, decay and eventually death (Katz 1996). This discourse has participated in differentiating the ageing body from other bodies, and has constructed it as a problem for bio-medical sciences and for society (Katz 1996). The institutional production and embodiment of such discourses by members of a society have been two key contributions of Foucault. By articulating social and individual affaires, his concept of problematization as developed in *The Use of Pleasure* (1985), describes how both of these aspects testify to the social and individual problem that ageing and old age has become. On one hand, it refers to discourse, social perception and social practices that transform a domain of normal human experience into a social problem; on the other hand, it refers to a crisis of thought on the conditions in which people problematize "what they are, what they do and the world in which they live" (Foucault 1985, p. 10). In this sense, the Foucauldian approach examines the sociopolitical and personal effects of age classifications.

This problematization can be largely attributed to the strength of biomedicine in the current discursive space within the field of ageing (Mykytyn 2009), and has participated in generating contempt towards ageing bodies that fail to meet contemporary standards of performance, reliability and perfection (Le Breton 2003). This trend bears witness to the presence of anti-ageing in mainstream institutions, such as the Dresden International University, which has promoted itself in advertisements as the first university to offer a Master's degree in preventive, anti-ageing and regenerative medicine.

Because old age is now considered to be avoidable, a new form of geriatrics is increasing the commercial potential of rejuvenation (Moreira and Palladino 2008). The American Academy of Anti-Ageing Medicine (A4 M) is involved in disseminating information on the therapeutic use of stem cells, therapeutic cloning, genetic engineering and nanotechnology. Founded in 1993, it acts as a platform for over 80 societies specialized in anti-ageing medicine and is "dedicated to the advancement of technology to detect, prevent, and treat ageing related disease and to promote research into methods to retard and optimize the human ageing process" (A4 M 2011). It now has a membership of over 22,000 physicians, health practitioners, scientists and governmental officials representing over 100 countries. In 2012, A4 M and its satellites organizations around the world will be hosting over a dozen conferences on diverse strategies and procedures connected to regenerative medicine.

The study of key texts in biogerontology reveals however that many conflicting and competing discourses between scientists are emerging over the legitimacy of their goals and methods—two key features required for research funding. Their ideas have reached proportions out of the ordinary and have been laid out in prestigious scientific outlets (*Nature, Annals of the New York Academy of Sciences*) and popular sciences journals (*Scientific American, Technological Review, The Scientist*).

These debates can be framed in the opposition between a discourse on ‘medicalizing ageing’ and a discourse on ‘understanding ageing’. These two positions diverge on the status given to old age and on the ethical and moral issues related to attempts to modify the maximum human life span, established at around 125 years and unchanged in the last 100,000 years (Hayflick 2000). In one case, understanding ageing involves efforts to increase the quality of life by preserving the current life span. In the other case, medicalization generally pathologizes ‘normal’ ageing and the normal life span. These positions can be represented by two key figures in the sciences of ageing. Leonard Hayflick, scientific expert in microbiology and founding member of the National Institute on Ageing, argues that scientific research should avoid the goal of increasing human life span, and instead focus on understanding the increased susceptibility of cells to disease that occurs during the ageing process. In one of his last publications, Hayflick (2007, pp. 10–13) justifies his position by creating some distance from his prolongevist colleagues:

> There is a universal failure by science policy makers to understand that the basis for all age-associated disease might lie in discovering why age changes increase vulnerability to all of those diseases… It is more likely that it is not the fear of ageing but the fear of approaching death that motivates the prolongevists. Why then is it useful to pursue research on ageing if the goal is not to intervene in the process? […] Research conducted on embryogenesis or fetal, childhood, or adult development is not conducted with the goal of understanding how to stop, slow, or reverse the development of embryos, fetuses, or the maturation of children. It is conducted to satisfy the human need to understand the processes and to learn how the pathologies associated with young cells and their role in developmental processes might be prevented. […] There is an almost universal belief by geriatricians and others that the greatest risk factor for all of the leading causes of death is old age […] Why then are we not devoting significantly greater resources to understanding more about the greatest risk factor for every age-associated pathology.

In contrast, one of the most vocal proponents of modern prolongevism is Aubrey de Grey, editor in chief of the journal *Rejuvenation Research*. In recent years, de Grey’s positions have been exposed in major media outlets such as the *New York Times*, *Popular Science* and the *Washington Post*. In his series of editorials in *Rejuvenation Research*, he argues that: “Ageing has been with us for a long time, despite our best efforts. The idea that it will be with us forever has ceased to be tenable, however, and the race is on to expedite its elimination” (de Grey 2004a, p. 2). For the prolongevists, it is plausible to believe that the right to life beyond the current life span will be endorsed by institutions in power: “What discrimination can possibly be starker than that concerning how much longer someone will be given the chance to live?” (de Grey 2004c, p. 165). Drawing on a more radical anti-ageing position, the following excerpt from *Rejuvenation Research* highlights his belief about the status of ageing:

> We are still becoming more civilized today; shortly we will, at long last, arrive at the collective realization that death of the old is as barbaric as death of the ethnically unfamiliar. Those who defend our current amorality in this regard will be consigned to the same dark corners of history as those who defended ethnic ‘cleansing’ in centuries past. Even to suggest that the value of a life varies with how long it has already been lived… will—shortly? (I hope so)—be seen as an indefensibly ageist stance (de Grey 2004b, pp. 90–91).

Although both positions—understanding and medicalizing ageing- converge on the necessity to research and finance biological research on the causes of ageing, they diverge on the role of ageing sciences and on the immutable character of the current human life span. These two views parallel the distinction made by Canguilhem (1978) between vital and social norms in contemporary biopolitics; the former referring directly to the biological life of an organism, and the latter to a social representation derived from a particular social construct. For Rose (2007), the new politics of life has mistaken social norms for vital norms.

> Our contemporary vital norms are no less, but no more, shaped by the conditions of formation as those previous generations. On the one hand our very personhood is increasingly being defined by others, and by ourselves, in terms of our understandings of the possibilities and limits of our corporeality. On the other hand, our somatic individuality has become opened up to choice, prudence, and responsibility, to experimentation, to contestation. This, then, is the problem space that defines the biopolitics of our contemporary emergent form of life (Rose 2007, p. 76).

The message of the prolongevist and the exposure it has received in popular culture and in formal sciences testify to their importance in the current discursive space in the biosciences. For Foucault (1988b), we are clearly in a historical period where the general living conditions of the elderly are more favorable than in the past, and this recent conscientiousness over their quality of life would explain why we are so concerned and worried over threats to their well being.

Statecraft and Soulcraft

One criticism of the life extension project is that medical sciences pay no attention to either statecraft or soulcraft. In making this distinction, we draw on a tradition of political philosophy that arose in Greek thought about the *polis* and the individual. A wise statesman would attend diligently to the craft of running the state, just as the virtuous individual would attend to the management of the soul. Both forms of craft involved a struggle against dangers to the orderly conduct of this world. Firstly, the discourse of life extension tends to neglect the modern version of statecraft that we can simply call ‘the political economy of the state’, namely, from where are the resources for longevity to be generated? With the growth of neoliberalism, personal taxation has been reduced and the state is shorn of resources to address social problems. In contemporary America, the Tea Party movement would significantly reduce the role of the state in the management of domestic policy, leaving the state with primarily military tasks in foreign policy. Secondly, and in some sense more seriously, the life extension project pays very little attention to soulcraft. What are the virtues that will be necessary for people to age or to survive such long lives? Most of the soulcraft we possess relates to a world in which human lives were relatively short.

Statecraft

We first begin with a discussion of statecraft. We argue that the political economy of ageing—namely the long-term consequences for society, economy and politics—has been neglected in the scientific literature on longevity and ageing, which typically considers life expectancy from the perspective of the individual—people have a right to live longer. The 'burden of dependency' has negative consequences for health-care systems and economic growth and hence the prospect of indefinite life would raise an acute Malthusian crisis (Turner 2011). These changes imply an interesting change from early to late capitalism. In the early stages of capitalist development, the role of medical science was to improve health care to make the working class healthy in order to maintain an efficient labor force. Late capitalism does not need a large labor force at full employment and working full time, because technology has made labor more efficient. Late capitalism requires a small highly trained labor force and a large number of unskilled domestic workers on temporary contracts and a pool of offshore workers with casual employment who can be mobilized for short-term work. This labor force has to support an ever-growing number of retirees whose pensions can no longer cover their life span. In the new biotechnological environment, disease is no longer a negative force in the economy but, 'on the contrary' one of the factors of production.

Contemporary forms of governmentality emphasize a politics of populations through the political management and regulation of the lives of individuals (Foucault 2007). Various forms of specialized knowledge and technologies target wealth, health and life expectancy of individuals as ways to monitor and control populations. In *The birth of biopolitics*, Foucault (2008) includes liberalism in his concept of government and suggests that the means of government are more complex today due to the multiple actors involved in government and the lower involvement of the state. In fact, he argued: "What should now be studied, therefore, is the way in which the specific problems of life and population have been posed within a technology of government which […] since the end of the eighteenth century has been constantly haunted by the question of liberalism" (323–324).

In other words, what type of government of populations is in place and what are its impacts on populations that privilege individual freedom and rights? In this context, how does prolongevism defend questions related to the political economy of ageing: who will pay for the cost of longevity? What is the opportunity cost of increasing the lives of a few? How will it modify the balance of power between social groups?

With the problematizing of ageing and the inflation of consumer needs to look and feel younger, it comes as no surprise to witness the growth of a booming anti-ageing industry. This emerging industry is already establishing new health standards and new relationships for ageing bodies that emphasize individual consumption and individual rights to access biotechnology. In the new biomedical environment, this pursuit can be explained by the hyper-agency of consumers who expect organizations to serve their desires and fulfill their drive for biological mastery in order to meet the demands of a competitive society—that is increasingly youth-oriented (Sandel 2009). Drawing on Cetina (2005), Lafontaine (2009, p. 54) claims that regenerative medicine is one of the most accomplished manifestations of biopolitics as it announces a culture of life in which individual existence is symbolically assimilated to biological citizens. It is perhaps inevitable that many citizens will hold this position if they feel they have acquired a right to receive treatment from their protective institutions (Rose 2007, p. 25). This point of view is reflected in de Grey's justification for an increased access to anti-ageing resources aimed to 'cure' ageing:

> This is a frequently heard complaint against life extension research: there seems to be a widespread gut feeling that our resources are better directed at more "urgent" concerns, such as saving the lives of children in developing nations where infections that kill very few in the industrialized world remain rife. This logic can be challenged on several grounds, but the one I want to focus on here is, as above, one of discrimination [...] the popular view that saving lives of children in Africa (for example) is more important than curing ageing constitutes discrimination in favor of those whose remaining lives will be very short unless we help them but fairly short even if we do, and against those who will probably live a few decades anyway but could live many centuries if we act now… Thus, to prioritize expenditure on treating diseases of old age… and to deprioritize expenditure on curing ageing constitutes discrimination against those just young enough to benefit from a cure for ageing if we threw more resources now at developing it (de Grey 2004c, pp. 165–166).

By 2011, the world's population had reached 7 billion and is expected to rise to 9 billion by 2045. Recent media coverage of this milestone has highlighted the incapacity of international institutions to protect populations from illness, poverty, hunger, thirst, pollution and natural disasters. What will be the effect of an increase in population on our global quality of life? A study drawing on world mortality data provided by the United Nations has shown that inequalities in life expectancy have increased between the rich and poor areas of the world since the 1980s (Moser et al. 2005). In light of this demographic state of affairs, such inequalities would be aggravated by the life-extension project and would be morally unjustifiable in the spirit of human rights. There is a paradox in scientific discourses of rejuvenation. On the one hand, there is a wish to prolong life and on the other, an indifference to the means that would be necessary to prevent premature death, especially in infants. Assuming a connection between wealth and health, it is morally unjustified to value some lives more than others, to value the addition of extra years to already long lives rather than to add extra years to those whose lives are relatively short as a result of existing social inequality. The answer to this conundrum—save the lives of children in sub-Saharan Africa or extend the lives of the rich in Europe—and cannot be 'both', since we believe that there is a real scarcity of resources in the modern world—such as water and viable arable land. In this respect we depart from those sociologists who argue that 'scarcity' is an invention of reactionary professors of economics (Somers 2008).

Although this quest for longevity brings personal solutions to the 'problems' of ageing, as seen in the above quote, it is unconcerned with wider social consequences related to social inequality, social conflict or depletion of vital resources. The right to health and longevity is at the heart of the problem. Although, the freedom to do what you want with your body is a valid assumption within the paradigm of liberalism that we have inherited from John Locke to promote life extension technology, but does the notion that each individual has a right of body ownership have no limit? What is the responsibility of the state in controlling technology that may be detrimental to the quality of life of others? How will we regulate ageing populations in the context of growing scarcity of resources? If prolongevism is well grounded in contemporary politics of life—where ageing is pathological and the right to life justifies the use of anti-ageing technology, how can social justice and equality be sustained?

One way of including this issue lies within a politics of human rights that encompasses elements of human integrity, scarcity and health priorities within the current human span (Turner 2009). In prolongevism, it is unlikely that the claim to enjoy longevity for the wealthy minority will be effectively asserted by all members of a population. Because this Malthusian problem of scarcity is present in social policy, the rights and resources provided to one group we must consider the possible negative consequences on another. The position of the prolongevist that invoke the right to health of one group, neglects the consequences of these choices on the precariousness and the vulnerability of another group. It has increased health needs and has blurred efforts to determine a threshold for determining medical coverage. In this sense, we cannot take for granted that all health rights are compatible and equivalent, and that they all can be covered by a system of social protection. Radical individualism would argue that, given the resources, an individual should have the right to any medical intervention he or she can purchase on the open market, from cosmetics to organ transplants.

Medical sociology, like other fields in the social sciences, has been significantly influenced by social constructionism. Within this epistemological framework, scarcity is treated as a socially constructed notion that serves to justify certain policies (broadly neo-liberalism) regarding the necessity of constraining government expenditures. The various ‘austerity packages’ that are now common in western economies are treated as ideological justifications for maintaining taxation cuts and reductions in government expenditure that are to the advantage of the rich and to the disadvantage of the poor. In the contemporary crisis, bloated government budgets are treated by the political right as requiring a period of austerity. Critics who use social constructionism to attack what they see as ‘economic ideologies’ are likely to regard ‘scarcity’ as a political smoke-screen. In this chapter, we treat scarcity somewhat differently in arguing that it refers to the social conditions that determine choices where all outcomes may be uncertain and sub-optimal. The fundamental notion in the population theory of Thomas Malthus had these characteristics (Turner 2011). In the historical context of Thomas Malthus, if people opted for sexual satisfaction, they may in the long run, have to pay the price of war or famine. If they restrained their sexual pleasure, they may have gained social stability but at the cost of their personal happiness. Today, satisfaction and prosperity still appear to be irreconcilable alternatives.

Medical ethics has shown that the implications of scarce resources on health are manifold. In his article on the ethics of scarcity and sacrifice, Olweny (1994), criticizes the oversimplified utilitarian views on health policies that indiscriminately promote the greater good for the greatest number of people. There are situations where valued policies should be abandoned. In cases where options are limited, high levels of scarcity influence policy choices that can create ethical quandaries for health professionals. For example, contrary to common practice, health policy in developing countries should increase its focus on curing diseases at the expense of forceful and costly actions on diseases prevention and chronic diseases (Olweny 1994, p. 169).

Biomedical progress in the field of ageing is bringing new standards of longevity, but also social anxieties and political struggle. For Kauffman and Fjord (2011), if the access to medical technology becomes an ethical necessity, scarcity of health care will increase, thus reducing the strength of the sanctity of life argument for older adults in demographically aging societies. Because there are various political responses to this problem, there are also variations of medical ethics and forms of rationing of health care towards older populations (Moody 2002). Characteristics of patients such as age, capacity to pay, degree of success of medical intervention, social value of the individual, are all deciding factors used to different degrees that determine access to health care in the face of scarcity. As argued by Walters (1998), ageing societies will be faced with the difficult ethical question of 'choosing who's to live' by limiting life-saving resources for the elderly.

In this sense 'scarcity' has become a profound problem in modern economies with intense globalization and technological developments. Employment and longevity are dilemmas arising alongside the prolongevism project. Scarcity of employment has been the most serious political problem of the financial crisis that began to emerge in 2007. Our argument is that unemployment and underemployment are not merely transient problems of the business cycle but systematic problems of financial capitalism in which there is a sharp decline in manufacturing, outsourcing of jobs and rising unemployment as computerisation removes work. We face a job-less recovery from the financial crisis. In the summer of 2012 the official unemployment rate in the United States was 8.2 % and in the United Kingdom it was 8.1 %, but among the age group 16–24 years in Britain, unemployment stood at 21.9 % of the workforce in that age group. In our argument prolongevism exacerbates the underlying problem of underemployment and unemployment. In response to this crisis, the policy options are deeply divided. While Western governments have generally sought to stimulate youth employment by encouraging companies to take on young workers, other groups such as the Social Market Foundation think-tank in Britain believe that government policies should aim to improve the employment prospects of all age groups. However, these policies may not be able to overcome the disparity in life-chances for different generations. In Britain the Baby Boomers enjoined the long twentieth century of economic prosperity, whereas young people are faced by a severe contraction of the labour market. Once opportunities for youth employment have disappeared, then opportunities for this jobless generation may never return.

The notion that scarcity best describes the limitations of a field of contradictory choices is useful in understanding the traditional debates of medical ethics. For example, the debate around sanctity of life versus quality of life arguments perfectly illustrates the idea of scarcity in relation to choices where no option is optimal. Many of these medical debates had their origins in President Reagan's relationship to religious conservatism and the opposition to abortion rights. Reagan's conservatism in medical issues was greatly enhanced by his judicial appointments which produced a Supreme Court that stuck to the letter of the law and upheld a conservative interpretation of the Constitution. Reagan's conservatism supported sanctity of life arguments. However, as Singer (1979) pointed out in his account of 'practical ethics', when medical decisions about life are taken in practice by doctors and nurses, they are forced to make pragmatic decisions about what form of life is viable and what is not viable. Abstract debates about medical ethics may not provide practical guidelines for actual clinical decisions.

This debate about medical choices is directed towards everyday decision making, whereas we are more concerned with the macro-context of political choice such as the Medicare debate in the United States. The controversy around President Obama's medical reforms probably had its origins in the presidency of Bill Clinton when Republican leaders such as Senator Robert Dole and Speaker of the House Newt Gingrich confronted the President with the choice between a government shut-down or tax cuts for the wealthy and reduced spending on social programmes (Wilentz 2008, p. 361). The austerity policies of contemporary Western governments have continued with these stark choices but under worsening economic circumstances. Our argument is that the ethical choices, for example about sanctity or quality, are overshadowed and compromised by deep inequalities between both social class and generation. Rising social inequalities in income terms are interacting with long-term generational inequalities which are summarised perhaps crudely in the slogan 'we are the 99 %'. We simply add to this conventional debate the idea that the prolongation of life, in the absence of successful social reform, can only deepen the social and economic crises at both the national and the global level.

Hence, we quickly see the limits of aspirational statement such as Article Three of the Universal Declaration of Human Rights (Everyone has the right to life, liberty and security of a person) in this context. Only a utopian environment of plenitude of human, natural and economic resources could guarantee equal access. With scarcity, there is always a Darwinian struggle for survival: even in the richest societies of the developed world (Turner and Rojek 2001).

In one of his late lectures Foucault alludes to the fundamental question of the limits of social security in the context of scarcity (Foucault 1988b). How can a 'right to health' be sustainable if health needs are indefinitely rising? If we want to maintain equality of social security, institutions need to control the means to achieve health by developing a flexible approach to social security that considers the capabilities of medical technology, economic capacity of collectivities and the amount of resources that a society wants to provide preserve health (Foucault 1988b). Foucault's lecture can also be read as a document referring to the political and moral backbone of the exercise of government. If health claims continue to be inflated, we need an alternative definition of health that has been provided by medicine and new norms that will determine basic health requirements. As argued by Foucault (1988b, pp 171–172):

> A machinery set up to give people a certain security in the area of health has, then, reached a point in its development at which we will have to decide what illness … will no longer receive coverage—a point at which, in certain cases, life itself will be at risk. This poses a political and moral problem not unrelated … to the question of the right enjoyed by a state to ask an individual to go and get himself killed in war. That question … has been perfectly integrated into people's consciousness through long historical developments, in such a way that soldiers have actually agreed to get themselves killed … The question that now arises is how people are going to accept being exposed to certain risks without being protected by the all-providing state.

If the current human lifespan holds a pathological status, it is highly probable that the elderly will undertake political action to acquire a more equitable distribution of medical resources to prolong their lives. In contrast, if death at the end of the current lifespan is considered normal, we can suppose for instance, that the premature death of children in impoverished countries will be prioritized because it does not conform to health norms associated with the life span. Scarcity is a fundamental component of the government of populations, but it also participates in the creation of an ethic on the limits to health care in later life that must be accepted by members of a population. In speaking of such a framework, Foucault (1988b, p. 173) states that: "The problem raised is … the relationship between an infinite demand and a finite system. […] This is not the first time that mankind has faced this problem. After all, were not the religions created to resolve it?" So far, our discussion of the challenges of statecraft has mainly covered the institutional side of government in the context of prolongevism. Is it possible however to inform the subject of the unavoidability of ageing and the power of anti-ageing discourses? For this we must turn to soulcraft and to Foucault's idea of self-government.

Soulcraft

Early attempts to interpret Foucault as a theorist of the body concentrated on the idea of a 'government of the body' (Turner 1992) that is on how the body is represented and regulated. As a result there were many applications of the Foucauldian framework to governmentality in medicine by which the body was constructed and disciplined. A rather different view of governmentality has emerged in Foucault's work with the publication of *The Hermeneutics of the Subject* (Foucault 2005) from his lectures at the *College de France* in 1981–1982. An alternative perspective on Foucault was summarized neatly by Gros (2005, p. 513) in the 'Course Context':

> From the eighties, studying the techniques of existence encouraged in Greek and Roman Antiquity, Foucault let a different figure of the subject appear, no longer constituted, but constituting itself through well-ordered practices.

The result of these studies was not to depart from existing analyses of power, but rather to complicate investigations of governmentality by an exploration of the care of the self. Foucault extended the government of others to the government of the self by focusing on those technologies that constitute the subject and help subjects to transform themselves. Contemporary government offers a space of production of subjectivity and marks to development of subjectivity and ethics.

In these studies of Antiquity, Foucault (2005, p. 15) proposed to investigate the idea of care of the self as the centerpiece of spirituality, which he defined as “the search, practice and experience through which the subject carries out the necessary transformations on himself in order to have access to the truth”. The search for spirituality does not regard truth as a right of the individual, but proposes that the subject must be “changed, transformed, shifted, and become, to some extent and up to a certain point, other than himself” (Foucault 2005, p. 15). Spirituality required the conversion or transformation of the subject resulting in beatitude. He contrasted this notion of Christian spirituality in the ancient world with the ‘Cartesian moment’ that ushered in the modern age at which point Descartes’s philosophy disconnected philosophy from spirituality.

Spiritual practices do not involve acts in which the self is passively constituted but, in fact, actively constitutes itself. This notion was directly expressed in Foucault’s commentary on asceticism. Of course, within mainstream sociology, any discussion of asceticism almost inevitably leads to Max Weber’s Protestant Ethic thesis in which the notion of ascetic practice is understood in terms of personal renunciation. Foucault (2005), pp. 319–320 rejected this assumption about self-renunciation, arguing instead that for the Ancients *askesis* involved ‘constituting one self’ or ‘arriving at the formation of a full, perfect, complete, and self-sufficient relationship with oneself, capable of producing the self-transfiguration that is the happiness one takes in oneself’. For Roman philosophers like Marcus Aurelius, the excellence or virtue arising from ascetic practices was similar to the excellence produced by an athlete in training the sporting body to achieve perfection in the public arena. While the notion of asceticism of the Stoics had an austerity that was shared with Christian theologians, Foucault claimed that the intention of the Ancients was not self-renunciation but self-realization.

In a recent article, Rabinow (2009) claims that too many scholars following the legacy of Foucault have over-simplified his work by concentrating on ‘power’, ‘ethics’ or ‘governmentality’. Rabinow argues that in his later work Foucault concentrated more and more on issues relating to the care of the self. The new project emerging out his analyses of asceticism was ‘spirituality’, not the salvational drive of Christianity. Instead Foucault borrowed from a secular tradition such as the Greek notion of ‘salvation’ (*sozein*), which was an activity that was aimed at achieving the good for somebody. This Greek notion evoked the ideas of caring for someone in order to nourish them. To achieve this good, the individual had to exercise perpetual vigilance or ascetic exercise. Through the ascetic training of the body, this spiritual path involved care of the self. His analysis of the care of the self points in the direction of an ‘aesthetics of existence’ characteristic of contemporary life (Foucault 1990).

Due to high uncertainty of the life extension project, and to the rather ephemeral effect of current anti-aging strategies, one’s personal relation with ageing and finitude must avoid to come into conflict with one’s personal development and wellbeing. In this sense there needs to be a self-government of the subject who ages, physically declines and is constantly recognizing a distance from youth norms. Can there exist a self-government of 'restraint'? As Cole (1992, p. 239) argued in his cultural history of aging in America:

> We need… to criticize liberal capitalist culture's relentless hostility toward physical decline and its tendency to regard health as a form of secular salvation. We need to revive existentially nourishing views of aging that address its paradoxical nature. Aging, like illness and death, reveals the most fundamental conflict of human condition: the tension between infinite ambitions, dreams and desires on the one hand, and vulnerable, limited, decaying physical existence on the other.

Perhaps a starting point for the individual is to embrace biological ageing and to de-dramatize ageing and death while we enter in the later phase of the life span. As suggested by Foucault (1988b, p. 177): "It seems to me that there is something chimerical about wanting to revive, in a great wave of nostalgia, practices that no longer have any meaning […] Let's try rather to give meaning and beauty to death-obliteration".[1]

It is not unrealistic to believe that a new ethic might emerge out of the modern biomedical environment. Turner (2009) proposed a new aesthetic of ageing based on the work of philosopher Friedrich Nietzsche as a way to propose a heroic ethic and as an attempt to be creative in front of the expectations proposed by the anti-ageing rhetoric. Similarly, according to Revel (2008, p. 134), for Foucauldians such as Gilles Deleuze, where power is involved in life, life innovates, and where life is subjected to power, life resists though various strategies; this is where one can make one's life like a work of art—create a new relation to oneself, make new forms of life, new relations, political and ethical choices.

Conclusion: Towards a New Ethics of Ageing

These two dimensions of the 'problem of ageing'—how can the state manage an ageing population and how can the soul manage an ageing body—were considered in *Vulnerability and Human Rights* (Turner 2006) and *Can we live Forever?* (Turner 2009). In particular Turner argued that ageing required an aesthetic approach in which life could be crafted rather like a work of art. The problem of ageing therefore comes down to the management of the population by the state and the care of the soul of the individual. However, two problems stand in the way of any solution. First, the dominant neoliberal model of the state and the growing proportion of the population with age-related diseases present a limit. Hence it is difficult to see how the state could raise taxes to manage the burden of ageing

---

[1] The term 'death-obliteration', translated from the French 'mort-effacement' appears too strong and may change the meaning of the original intention. The expressions 'death-disappearance' or 'death by removal' might convey a more accurate translation.

where, as we have seen, the are upper and middle classes in America are both resistant to increases in both personal and corporate tax increases. The question is: can market solutions provide for pensions and health-care for the elderly? The market solution will likely produce more age inequality, including generational inequality. The second issue is that the care of the soul in late capitalism has also become an aspect of commercial medicine in which solutions to depression and alienation are found in medication rather than in any discipline of the soul. Perhaps the work of the late Foucault on spirituality might provide, in the long run, a more satisfying approach to soulcraft. The pressures of anti-ageing on social solidarity are unlikely to disappear in the short term, because the profound desire to interrupt the aging process since it is a more or less durable characteristic found in the history of every society and across the most religions (Gruman 1966). For these reasons, ageing and anti-ageing constitute topics of analysis in sociology of the body that are likely to gain interest in the following decades.

Indirectly, this chapter has dealt with the sociological distinction between surviving (can we add more years to life with the use of biomedicine) and living (can our sociocultural environment satisfy our personal development). The tensions that emerge out of this opposition should be answered by sociology. If the body is perceived as an individual property subjected to the promise of medical utopias and to the unforeseen demands of consumer society, the social contract is likely to be eroded and personal happiness threatened. Market indicators clearly show that the baby-boomers are avid consumer of anti-ageing products and that they have embodied the demands of a competitive society that requires one to look and feel young. With this in mind, is the current soulcraft of people founded on overconfident convictions about the success of prolongevism, and is it increasingly connected to a possessive individualism that many people are espousing as desirable and morally good?

In spite of Foucault's undeniable influence on the study of the social representations and regulation of bodies, one of the limitations with his approach is that it has directed attention to how social practices are inscribed on the human body as merely a passive object. This question of the passive as opposed to the lived body was interpreted as an important issue in Foucault's work (Turner 1984). Responding to these questions around the passive body in Foucault's work on the history of sexuality, Arthur Frank's analytical review of the field was a useful attempt to 'bring the body back in' by shifting attention from the body as a problem for society to a problem for itself (Frank 1991, p. 47). Frank's work is important because, against the sick role concept, it explores the body out of control in a condition of permanent rather than temporary sickness, and the problem of suffering is central to any account of embodiment that wants to take ethics seriously (Frank 1995). A sociological criticism about any anti-ageing discourse is connected to various degrees to social suffering—whether from a personal perspective as the consumer of anti-ageing technology, or by the additional burden on resources engendered by institutional decisions. It is only through a departure from the theme of governmentality that one can begin to engage with ethics, pain and illness narratives. It is only by recognizing the ontological vulnerability of the human body that the social sciences can understand and contribute to the study of social suffering. It is in terms of what we might call a secular theodicy (explanations of the problem of suffering and injustice in society) that biology can usefully enter or rather re-enter, the social sciences. This recognition of suffering in the human condition also has a strong theological resonance.

References

A4 M–American Academy of Anti-Ageing Medicine (2011). Retrieved December 28, 2011, from (http://www.worldhealth.net).

Burchell, G., Gordon, C., & Miller, P. (1991). *The Foucault Effect: Studies in Governmentality*. Chicago: University of Chicago Press.

Canguilhem, G. (1978). *On the normal and the pathological*. Dordrecht, Holland: Reidel.

Cole, T. R. (1992). *The journey of life: A cultural history of aging in America*. Cambridge: Cambridge University Press.

Cutro, A. (2010). *Technique et Vie. Biopolitique et Philosophie du Bios dans la Pensée de Michel Foucault*. Paris: Harmattan.

de Grey, D. N. J. A. (2004a). Welcome to rejuvenation research. *Rejuvenation Research, 7*, 1–2.

de Grey, D. N. J. A. (2004b). Leon kass: Quite substantially right. *Rejuvenation Research, 7*, 89–91.

de Grey, D. N. J. A. (2004c). Three self-evident life-extension truths. *Rejuvenation Research, 7*, 165–167.

Foucault, M. (1977). *Discipline and Punish*. New York, NY: Pantheon.

Foucault, M. (1979). *The history of sexuality. An introduction* (Vol. 1). London: Allen Lane.

Foucault, M. (1985). *The history of sexuality. The use of pleasure* (Vol. 2). New York, NY: Random House.

Foucault, M. (1988a). Truth, power, self: an interview with Michel Foucault. In L. M. Martin, H. Gutman, & P. H. Hutton (Eds.), *Technologies of the self* (pp. 9–15). London: Tavistock.

Foucault, M. (2008). *Birth of biopolitics: Lectures at the Collège de France, 1978–1979*. Basingstoke, Hampshire, GBR: Palgrave Macmillan.

Foucault, M. (1988b). Social Security. In L. Kritzman. (Ed.), *Michel Foucault. Politics, philosophy, culture: interviews and other writings*, *1977–1984* (pp. 159–177), New York, NY: Routledge.

Foucault, M. (1990). *The history of sexuality. The care of the self* (Vol. 3). London: Penguin.

Foucault, M. (2005). *The hermeneutics of the subject. lectures at the college de france in 1981–1982*. New York, NY: Picador.

Foucault, M. (2007). In M. Senellar, F. Ewald & A. Fontana *Security, Territory, Population, Lectures at the Collège de France, 1977–1978*. New York, NY: Palgrave Macmillan.

Frank, A. (1991). *At the will of the body. Reflections on illness*. Mariner, Houghton Mifflin: Boston.

Frank, A. (1995). *The wounded story teller*. Chicago: University of Chicago Press.

Gordon, C. (1980). *Power/knowledge. Selected interviews and other writings 1972–1977 by Michel Foucault*. New York, NY: Pantheon.

Gros, F. (2005). Course context. In M. Foucault (Ed.), The hermeneutics of the subject. Lectures at the College de France 1981–1982 (pp. 507–546). New York, NY: Picador.

Green, B. S. (1993). *Gerontology and the construction of old age: A study in discourse analysis*. New York, NY: Aldine de Gruyter.

Gruman, G. J. (1966). A history of ideas about the prolongation of life. The evolution of prolongevity hypotheses to 1800. *Transaction of the American Philosophical Association, 56*, 5–102.

Hayflick, L. (2000). The future of ageing. *Nature, 408*, 267–269.

Hayflick, L. (2007). Biological ageing is no longer an unsolved problem. *Annals of the New York Academy of Sciences, 1100*, 1–13.

Hepworth, M. (2000). *Stories of ageing*. Philadelphia: Open University Press.

Kauffman, S. R., & Fjord, L. (2011). Medicare, ethics, and reflexive longevity: Governing time and treatment in an aging society. *Medical Anthropology Quarterly, 25*, 209–231.

Katz, S. (1996). *Disciplining old age. The formation of gerontological knowledge*. Charlottesville: University of Virginia Press.

Knorr Cetina, K. (2005). The rise of a culture of life. *European Molecular Biology Reports, 6*, 76–80.

Lafontaine, C. (2009). Regenerative medicine's immortal body: From the fight against ageing to the extension of longevity. *Body and Society, 15*, 53–71.

Le Breton, D. (2003). *Anthropologie du Corps et Modernité (3e éd.).* Paris: Quadrige/PUF.

Moody, H. (2002). *Should we ration health care for older people in aging and controversies* (4th ed.). Thousand Oaks: Pine Forge Press.

Moser, K., Shkolnikov, V., & Leon, D. A. (2005). World mortality 1950–2000: Divergence replaces convergence from the 1980s. *Bulletin of the World Health Organization, 83*(3), 202–209.

Moreira, T., & Palladino, P. (2008). Squaring the curve: The anatomo-politics of ageing, life and death. *Body and Society, 14*, 21–47.

Mykytyn, C. E. (2009). Anti-ageing is not necessarily anti-death: Bioethics and the front lines of practice. *Medicine Studies, 1*, 209–228.

Mykytyn, C. E. (2010). Analyzing predictions: An anthropological view of anti-ageing futures. In G. M. Fahy, M. D. West, S. L. Cole & S. B. Harris. (Eds.), *The future of ageing. Pathways to human life extension* (pp. 23–38). New York, NY: Springer.

Olweny, C. (1994). Bioethics in developing countries: Ethics of scarcity and sacrifice. *Journal of Medical Ethics, 20*, 169–174.

Powell, J., & Whahidin, A. (2006). *Foucault and aging*. New York, NY: Nova Science.

Rabinow, P. (2009). Foucault's ultimate struggle: Toward a form of spirituality. *Theory Culture & Society, 26*, 25–44.

Revel, J. (2008). *Dictionnaire foucault*. Paris: Ellipses.

Rose, N. (2007). *The politics of life itself: Biomedicine, power and subjectivity in the twenty-first century*. Princeton: Princeton University Press.

Sandel, M. J. (2009). The case for perfection: What's wrong with designer children, bionic athletes and genetic engineering. In N. Bostrom & J. Savulescu (Eds.), *Human enhancement ethics: The state of the debate* (pp. 71–89). Oxford: Oxford University Press.

Singer, P. (1979). *Practical ethics*. Cambridge: Cambridge University Press.

Somers, M. R. (2008). *Genealogies of citizenship. Markets, statelessness and the right to have rights*. Cambridge: Cambridge University Press.

Steiner, G. (1996). *Antigones*. New Haven: Yale Universiy Press.

Turner, B. S. (1984). *The body and society*. London: Sage.

Turner, B. S. (1992). *Regulating bodies. Essays in medical sociology*. London: Routledge.

Turner, B. S. (2006). *Vulnerability and Human Rights.* University Park, PA: Penn State University Press.

Turner, B. S. (2009). *Can we live forever? A sociological and moral inquiry*. London: Anthem Press.

Turner, B. S. (2011). Rights, reform and resources: Malthusian reflections on scarcity and old age. In T. Cushman (Ed.), *Handbook of human rights* (pp. 206–219). New York, NY: Routledge.

Turner, B. S., & Rojek, C. (2001). *Society and culture: Principles of scarcity and solidarity*. London: Sage.

Vincent, J. A., Tulle, E., & Bond, J. (2008). The anti-ageing enterprise: Science, knowledge, expertise, rhetoric and values. *Journal of Ageing Studies, 22*, 291–294.

Walters, J.W. (1996). Introduction. In J. Walters. (Ed.). *Choosing Who's to Live: ethics and aging (ix-xiii)*. Urbana : University of Illinois Press.

Wilentz, S. (2008). *The age of reagan. A history 1974–2008.* New York, NY: Harper Collins.

Chapter 5
Marx, Critical Realism, and Health Inequalities

Graham Scambler and Sasha Scambler

Much of the research on health inequalities purporting to be sociological is, in fact, socio-epidemiological. Its restricted focus is on the statistical relationship between assorted socio-economic classifications (SECs) and health and longevity rather than on "classical" sociological issues concerning the nature and salience of capitalism and its contradictions. While this focus has a return for sociology (Wright 2009), its emphasis on SECs has largely displaced consideration of the role of class relations and political power in producing, reproducing and exacerbating health inequalities. Indeed, it is sometimes difficult not to see sociology's recent published literature on health inequalities as itself the product of a post-1970s neo-liberal ideology owing much to what we shall refer to henceforth as a radically altered *class/command dynamic* (Scambler 2012).

Our argument in this chapter owes much to Marx but draws also on the philosophy of "critical realism" pioneered by Bhaskar (1978, 1989). Our introductory paragraphs pick up on Bhaskar's claim to be building on an Enlightenment-oriented Marxian project. In asking what accounted for Marx's (and subsequently Engels') recourse to dialectics, Bhaskar's (1989: 178) conjecture is that "it took the place of critical realism as the missing methodological fulcrum of Marx's work".

Ehrbar (2002) has committed time and energy to showing that this claim of Bhaskar's is audacious but not foolhardy. It is a claim that will be illustrated rather than defended here. What are important for present purposes are those concepts and arguments that comprise critical realism *and are salient for a provisional neo-Marxist theory of health inequalities*. Our goal in this contribution is to supply the *foundations* for a plausible and testable neo-Marxist sociology of health

---

G. Scambler (✉)
University College London, Mortimer Market Centre, London WC1E 6JB, UK
e-mail: g.scambler@ucl.ac.uk

S. Scambler
King's College, London Dental Institute, Caldecott Road, London SE5 9RW, UK

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_5,

inequalities. We start, then, with an outline of the theoretical basis for a critical realist-oriented neo-Marxist sociology of health inequalities before discussing how such an approach might take shape.

Introduction: Marx Through the Lens of Critical Realism

Basic Tenets

Critical realism takes ontology seriously. Rejecting Hume's epistemic privileging of the constant conjunction of events, and in the process turning its back on the idea of causality as mere regularity, critical realists pursue causality elsewhere. "Attention", as Fleetwood (2002: 67) puts it, "turns away from the flux of events (constant or otherwise) and towards the *causal mechanisms, social structures, powers and relations* that govern them". Critical realism proclaims a stratified ontology: the *empirical* refers to experience; the *actual* to actions and events; and the *real* (or "deep") to what Fleetwood, following Bhaskar, calls mechanisms, social structures, powers and relations (hereafter referred to as "mechanisms"). In what Bhaskar terms an *open system*, these levels or strata are typically out of phase with one another. In other words it is not possible to map the effects of mechanisms at the level of events and perceptions. This is because they act *transfactualy*: once set in motion, they continue to exert an influence even if other countervailing mechanisms prevent this influence manifesting itself. Fleetwood (2002) cites the notion of *tendencies* deployed in Marxian economics in this context. The mechanisms that combine to generate the tendency of the rate of profit to decline act transfactually, that is, they are always in operation even when empirically the rate of profit is rising. Their transfactuality is down to the operation of other mechanisms—like technological advances for example—acting in a countervailing manner.

For critical realists, ontology is not only stratified but *transformational*. Bhaskar (1987) aspires to go beyond the traditional focus on the interaction of agents and structures. His *transformational model of social action* (TMSA) holds that agents do not create or produce structures *ab initio*, but rather *re*create, *re*produce and/or *transform* a set of pre-existing structures. The total ensemble of structures is society (Fleetwood 2002: 68). Thus:

> People do not create society. For it always pre-exists them and is a necessary condition for their activity. Rather society must be regarded as an ensemble of structures, practices and conventions which individuals reproduce and transform, but which would not exist unless they did so. Society does not exist independently of human activity (the error of reification). But it is not the product of it (the error of voluntarism) (Bhaskar 1989: 129).

Critical realism's stratified and transformational ontology switches the emphasis from the levels of the empirical, actual, and "event patterns", to the level of the real and the mechanisms that govern events. Explicating the TMSA, Bhaskar (1989: 36) argues that the social sciences are charged to "lay out the structural conditions for various conscious human actions—for example, what economic processes must take place for Christmas shopping to be possible—but they do not describe the latter". Given the openness of systems and transfactuality of mechanisms, event outcomes cannot be deduced or predicted. Mechanisms *can*, however, be reproduced in the service of explanation. Fleetwood (2002: 69) says that:

> … to *explain* a phenomenon is to give information about relevant *causes*. This information is, typically, about the underlying, transfactually operating, causal mechanisms, social structures and powers. It also expresses the main objective of science, namely, explanatory power.

Dialectics

Much could be said about Bhasker's invocation of dialectics, but our comments here are constrained by the requirements of a genuinely sociological theory of health inequalities. The focus is the concept of contradiction. Collier (2002) contends that Marx rescued two concepts of contradiction from Hegel. The first understands contradiction as a structural property of a system which necessarily generates dysfunctions for that system. Thus, class struggle and periodic crises are necessarily generated by capitalism but are dysfunctional for capitalist society. Such contradictions are *internal*. Contradiction in this sense allows Marx to sidestep utopianism. According to Collier (2002: 156), it is not at the behest of a "view from nowhere" that capitalism is resisted, "but because capitalism has contradictions which we can see from inside it, which hurt the people inside it, and which could be resolved with the resources produced by it, but only by its abolition".

The second concept invokes the idea of inversion. In his early writings Marx deployed the notion of alienation to show how the product comes to dominate the producer; but in *Capital* too it is analogously clear how "dead labour" (capital) comes to dominate living labour. In similar vein, analyzing machinery, Marx (1976: 532) writes of "the paradox that the most powerful instrument for reducing labour time suffers a dialectical inversion and becomes the most unfailing means for turning the whole lifetime of the worker and his family into labour-time at capital's disposal". The concept of inversion, Collier (2002: 157) argues, appeals to a transhistorical element: "in order for the domination of the producer by product or living labour by dead labour to be an inversion, there has to be a natural ontological order in which producers dominate products and living labour dominates dead labour". If Marx's thesis presupposes as much, he neglects to defend this "natural ontological order".

Significance for Health

Humans are at one and the same time biological, psychological and social beings. The objects of enquiry of biology, psychology, and sociology are *real* (in Bhaskar's sense) and *different* (Scambler and Scambler 2003; Scambler et al. 2010). Creaven (2000: 139) draws on the work of Archer (1995) to insist that "a strong explanatory account of human nature, and of the non-social subject" is indispensable in providing "micro-foundations for the theory of social structures and human agency". He develops this transcendentally, arguing that human nature and the non-social subject denote an ensemble of powers, capacities, dispositions, needs, and interests of the human species that "logically must be held to exist in order to account for the existence of human society" (Craven 2000: 139).

Creaven is careful to steer clear of the naturalistic fallacy, namely, collapsing society into human biology or nature. He continues:

> At the same time as humanity's species-being and attendant powers and capacities are transmitted 'upstream' into social interaction and socio-cultural relations (supplying the power which energizes the social system, constraining and enabling socio-cultural production and reproduction, and providing a certain impetus towards the universal articulation of particular kinds of cultural norms or principles), structural-cultural and agential conditioning are transmitted 'downstream' to human persons (investing in them specific social interests and capacities, shaping unconsciously much of their psychological and spiritual makeup, and furnishing them with the cultural resources to construct personal and social identities for themselves) (Creaven 2000: 140–141).

A distinction is necessary, Creaven (2002: 136) elaborates, between relations of vertical determination between strata and relations of horizontal causality between mechanisms and events/objects. Events and suchlike are shaped conjointly by a plurality of mechanisms operative at different levels of reality. Zoological laws presuppose chemical laws which in turn presuppose physical laws, humans being "a combinatory of physico-chemical and organic structures" (Creaven 2002: 136). Relations of vertical causality between strata, aside from being relations of "ontological presupposition", are also often "one-way relations of inclusion of the various strata" (Bhaskar 1978: 119). Thus animals are necessarily subject to a broader range of mechanisms than rocks; similarly, humans, *qua* "cultural entities," are necessarily subject to a wider array of mechanisms ("society, mind, biology, chemistry and physics") than biological entities ("to which only the last three apply").

How is it, Creaven (2002: 136) asks, "that higher order mechanisms and structures are explainable but yet irreducible to lower order ones?" The answer, according to Bhaskar, is that higher-order strata are rooted in and emergent from lower-order strata. "Rootedness" simply recognizes that the more complex aspects of reality presuppose the less complex. Bhaskar's (1978: 115) notion is "of some lower-order or microscopic domain providing a *basis* for the existence of some higher-order property or power; as for example the neuro-physiological organization of human beings may be said to provide a basis for their power of speech".

The critical realist concept of emergence is less easily explicated. Creaven cites Sayers' (1992) delineation of two principal referents. The first re-states or emphasizes the irreducibility of the constituent strata or levels of reality: "we would not try to explain the power of people to think by reference to the cells that constitute them, as if cells possessed this power too … In such cases objects are said to have 'emergent powers', that is, powers or liabilities which cannot be reduced to those of their constituents" (Sayers 1992: 119).

The second denotes “the emergence of a higher-order stratum in a specific interaction or combination of generative mechanisms internal to those objects or mechanisms that exist at the stratum immediately ‘basic’ to it” (Creaven 2002: 136). Thus, biological reality is emergent from a specific combination of generative mechanisms at the chemical level, just as socio-cultural reality is emergent from a specific interaction of causal powers internal to the biological level.

Emergent properties are present too *within* particular domains of reality. The physical, chemical, biological and “human-social” level each give rise to higher and lower strata: “even though social structures exist only where people reproduce them, they have powers irreducible to those of individuals (you can’t pay rent to yourself)” (Sayers 1992: 105). The properties and powers of individuals are not merely aggregative products of their interaction, but must rather be seen as emergent properties of the societal organization in which their interactions are situated. This is what gives credence to the idea that “society is more than the sum of its parts, and that its ‘parts’ (i.e., people and their inter-personal relations) are transformed by being parts of the social whole” (Creaven 2002: 137).

The story so far

To those critical realists of a philosophical bent these opening paragraphs will have signalled but not resolved multiple obdurate problems, while to those oriented to sociological enquiry they may seem a sledgehammer to crack a much more prosaic nut. We have sympathy for both parties, but more for the latter. So where has this fleeting introduction left us? Critical realism has been presented as a way of approaching and deepening a plausible sociology of health inequalities. It allows for recognition that:

(1) Mechanisms, including those of *class* (in the subsystem of the economy) and *command* (in the subsystem of the state), remain operational (issuing in tendencies) even when they play little or no part in shaping events (because of countervailing mechanisms).
(2) Mechanisms can be retroduced from the empirical study of events, most notably for present purposes when the “demi-regs” (or statistical associations) yielded by multivariate analysis are understood as cues pointing to the real rather than actual measures of the real (Lawson 1987).
(3) The capitalist system is characterized by contradiction (most obviously internal contradictions, as in class relations, but also involving inversion).
(4) The social represents one of a number of layers of reality: although it can (a) be studied in its own right and (b) is “irreducible”, it is significant for present purposes that the lives (and health and longevity) of humans cannot be expected to yield their secrets exclusively to sociologists (Scambler et al. 2010).
(5) While most social acts re-create or reproduce reality, there remains a potential for them to transform that reality.

Class, Command, and Social Change

Having introduced a conceptual apparatus underpinned by critical realism, it is important to characterize aspects of recent social change that we contend are crucial if we are to come to terms with health inequalities sociologically. This will require a few paragraphs of spadework. Pivotal is the reinvigoration of relations of class relative to those of command (*qua* mechanisms). Capitalism, as Marx spelled out in the nineteenth century, owes its instability to contradictions; and these can transmute into full-blown crises. Buechler (2008: 58–59) reminds us of four core and enduring internal contradictions. The first is between social production and private appropriation. Capitalist production is organized socially, requiring the coordinated activities of many people; but appropriation is private and individual. Capitalism is efficient at producing private commodities (e.g. cars) but deficient in producing public goods (e.g. integrated transport systems).

Second is the contradiction between the strategic rationality of the corporation and the economic anarchy of the wider society. Under capitalism there is little economic coordination or planning either of commodity and labour markets or for essential services like education, health and welfare. This threatens the security and well-being of those in low-income household far more than the wealthy. A third contradiction involves the polarization of wealth and poverty. Because capital is concentrated in fewer hands, the rich become richer: even when workers' living standards improve, those of owners of capital typically improve more rapidly. On a global scale, the polarization between rich and poor is extreme. And fourth, capitalism produces for profit, not use. It privileges profit over need. Production for profit rather than use creates further instability by allowing the exceptional affluence of the few to coexist with the unmet needs of others.

Contradictions can become economic crises, for example, in the event of overproduction or under-consumption. Such crisis tendencies cannot be eliminated, but they may be managed; and "the dance of crisis tendencies and counterstrategies offers important insights into capitalist economies" (Buechler 2008: 60). In the liberal capitalism of the nineteenth century the market provided *system integration* by coordinating the production and distribution of material goods, and *social integration* by providing norms, values and identities that reinforced people's economic motivation. Beliefs about equal opportunity, upward mobility, the work ethic, and that hard work would be rewarded, were more commonplace than now. They continue to have some resonance in the USA in the ideology of the "American dream". Because both system and social integration owed so much to the market, liberal capitalism was highly prone to crisis. Things became more complex with (postwar) organized and (post-1970s) disorganized (henceforth reorganized) capitalism.

Organized and reorganized capitalism differ from liberal capitalism in two respects. First, they are corporate- rather than market-dominated. Transnational corporations can monopolize production, set prices and manipulate demand, thereby nullifying any "free" market benefits of competition, price reduction, and so on.

Second, they are characterized by much more state intervention (in part a response to liberal capitalism's ultimate failure to provide system and social integration). The state came to underwrite needed but unprofitable goods and services, maintaining the infrastructure, subsidizing education and training for workers, providing social insurance for the unemployed, people with disabilities and the retired, and mitigating and repairing the environmental by-products of capitalism. The potential for crisis in organized and reorganized capitalism is more complex than was the case with liberal capitalism (Habermas 1975). Buechler's (2008: 69) summary is apt:

> … capitalist societies are prone to crisis because of inherent contradictions and conflicts built into them. Advanced capitalist societies respond to this threat with massive state interventions. This has displaced the crisis from economy to state. Chronic rationality problems in the state are the price of avoiding economic crisis. Under certain conditions, problems of state intervention trigger legitimation difficulties. Meanwhile, motivational problems have also become chronic features of modern societies, which also have the potential to translate into legitmation difficulties.

In reorganized capitalism, we maintain, the reinvigoration of relations of class relative to those of command, articulated as neo-liberal ideology, has undermined those forms of state intervention that rescued liberal capitalism from traumatic economic crisis. One of us (GS) has elaborated on this new class/state or class/command dynamic by emphasizing the significance of the *capitalist-executive* in class relations and the *power elite* in state/command relations. These concepts need further explication, and this in turn requires some preliminary comments on capital, labour and contradiction in reorganized capitalism.

In the 1970s the American abrogation of Bretton Woods and the rise of the Eurodollar freed money capital from national regulation by central banks, and international recession drew banks further into the global arena. This resulted in: (1) the emergence of transnational finance as internationalized banks established closer relations with transnational corporations; and (2) the resurgence of money capital in the leading capitalist economies (Carroll 2008). Sociologists and others wrote about processes of *financialization*, alluding not only to de-regulation and internationalization, but also (1) to a shift in the distribution of profits from productive to money capital, accompanied by an increase in the external financing of industry, and (2) to a reorientation, reaching deep into 'industrial' corporations, towards the financial sphere. Carroll (2008: 55–56) says: "… the constellation of interests atop major firms have shifted from salaried managers and bankers, toward institutional shareholders and, at certain junctures of corporate restructuring, private equity outfits". With the earlier discussion of inverse contradiction resonant, it is evident that industrial capital has increasingly come to resemble financial capital; Carroll (2008: 56) finds that "as stock options align corporate management with a money-capital standpoint and as firms issue their own commercial paper and come to depend less on productive activities and more on income from financial sources". In the financial sector meanwhile, deregulation has led to capital centralization in banks with global reach "whose activities range from financial production to speculation in derivatives", while "institutional investors controlling capitalized deferred wages (have) become important centres of allocative as well as strategic power" (Carroll 2008: 56). And then came the global financial crisis of 2008–2009! The capitalist–executive in reorganized capitalism, in short, is not what we grew accustomed to in organized capitalism, although there is as ever a tendency to understate continuity and overstate discontinuity.

Members of the capitalist-executive active in Britain exercise growing sway over what Oborne (2007) calls the "political class", located at the apex of the complex, regulatory and "colonizing" apparatus of the British state. Writing from the USA, and prior to the global financial crisis of 2008–2009, Harvey (2005: 115–116) queried the lack of analysis of the shift in the class-command dynamic in favour of capitalist-executive sponsored interests:

> … the lack of any examination of the class forces that might be at work is quite startling. The possibility, for example, that the ruling ideas might be those of some ruling class is not even considered, even though there is overwhelming evidence for massive interventions on the part of business elites and financial interests in the production of ideas and ideologies: through investment in think-tanks, in the training of technocrats, and in the command of the media. The possibility that financial crises might be caused by capital strikes, capital flight, or financial speculation, or that financial crises are deliberately engineered to facilitate accumulation by dispossession, is ruled out as far too conspiratorial even in the face of innumerable suspicious signs of co-ordinated speculative attacks on this or that currency.

The more weakly globalized power elite at the pinnacle of the British nation-state is even less readily defined than its more strongly globalized capitalist-executive. The power elite embedded within the apparatus of the state comprises more than the Prime Minister (supplemented by a coterie of advisers), the cabinet, ministers of state, or even Oborne's political class as a whole. Smith (1999), for example, draws on the ESRC (Economic and Social Research Council) Whitehall Programme on "The Changing Nature of Government in Britain" to argue for the displacement of the simplistic "Westminster model", founded on theories of the vertical distribution of power and parliamentary democracy, by a "core executive model", resting on theories of the horizontal distribution of power and a power elite characterized by overlapping networks. While some networks, like the connections between Prime Minister, cabinet and departments, are relatively permanent, others exist only for the lifetime of a particular policy, such as Welfare to Work.

Shrewd Foucauldian insights into *how* power works should not tempt us to abandon *why* questions, the answers to which can only be proffered from a neo-Marxist perspective on "dominance". Adapting Scott's (2008) neo-Weberian rather than neo-Marxist explication of power (and elites), the class power generated from the core of the capitalist-executive induces sympathetic interventions from the—if necessary "coercive"—power elite of the state, which in turn channels the "command" capabilities of lead bureaucracies and the "expertise" of salient professionals (processes of direct relevance to health inequalities). The countervailing constraints on the power elite, as has been indicated, comprise a mix of crisis tendencies.

Ubiquitous Health Inequality

How do these lengthy discourses on critical realism and neo-Marxist approaches to recent social change—encompassing a switch from organized to reorganized or financial capitalism during the 1970s—feed into a credible sociology of health inequalities? In the UK and in many other countries, there is a long tradition of monitoring population health by SEC. Tangential to the pioneering theories and investigations of Marx, Engels and Virchow, forms of social accounting from the mid-nineteenth century have given clear and continuing indication of the causal salience of (absolute, then relative) poverty for diminished health and longevity. Contemporary studies have built on this basic finding, giving rise in the process to innumerable demi-regs of interest to a critical realist- and Marxist-oriented sociologist (Bartley 2004; Graham 2007, 2009; Marmot et al. 2010). This is, of course, not just a UK phenomenon. The best evidence for the ubiquity of health inequality is to be found in the recent report of the World Health Organization (WHO 2008).

The late Director-General of the WHO, Lee Jong-wook, announced the creation of a 19 member strong Commission on Social Determinants of Health, which was launched in March 2005. The brief was to provide guidance to Member States and WHO programmes by gathering evidence on social determinants and ways to overcome health inequities. Social determinants of health were described as:

> The structural determinants and conditions of daily life responsible for a major part of health inequalities between and within societies. They include the distribution of power, income, goods and services, and the circumstances of people's lives, such as their access to health care, schools and education; their conditions of work and leisure; and the state of their housing and environment. The term 'social determinants' is thus shorthand for the social, political, economic, environmental and cultural factors that greatly affect health status (WHO 2008: 1).

The nature of the resultant evidence was predictable enough. *Health inequities were found to be increasing within and between countries*. The Commission noted a gap in life expectancy of more than 40 years between the richest and poorest countries. Further, gross inequities in health status were reported to divide different echelons within all countries. In high-income countries, life expectancy gaps of more than 10 years were found between different strata according to ethnic, gender and socio-economic status and geographical area. Low-income countries in all regions showed marked differences in child mortality by household wealth. The Commission's recommendations focused on (1) improving daily living conditions; (2) tackling the inequitable distribution of power, money and resources; and (3) studying and evaluating both the problem and the impact of interventions.

On the face of it there is little or no shirking here: the current *mal*distributions of wealth and power are both alluded to in the second set of recommendations and judged complicit in the production and reproduction of intra- and inter-national health inequalities. On one level at least—equivalent to that of Burawoy's (2005) "policy sociology"—the WHO Report is subtle, focused and apt: it is strategically compiled not only to inform but to facilitate relevant shifts in governance.

To this extent it can and maybe should be commended. On other levels, however, it glosses over the internal contradictions of capitalism, plus those epitomized in the notion of inversion. Further, Bhaskar's notion of "real" disappears into the ether.

In skating over the various contradictions intrinsic to capitalism the WHO Report effectively underwrites a class-ideology reflective of the vested interests of the capitalist-executive-oriented power elite (and their coterie of under-labourers within the new middle-classes). Coburn (2009: 44) offers the following challenge:

> People with high SES do indeed live longer than those with less. SES, however, is a mere ranking of people according to income, educational attainment or occupational position. It reflects standards of living generally, and because these standards are related to many different types of disease, it is a good correlate of health status. But SES is itself a result of class forces. The nature of the capitalist class structure, and the outcome of class struggles, determine the extent and type of socio-economic inequalities in a given society, and the socio-economic inequalities in turn shape the pattern of health—and of heath care. But while many theorists of the social determinants of health proclaim an interest in the basic determinants of health and health inequalities, much of their literature omits any consideration whatsoever of the political and class causes of SES and the SES-health relationship. When they speak of analysing the "causes of disease", they seldom go far enough up the causal chain to confront the class forces and class struggles that are ultimately determinant' (see also Scambler and Higgs 2001).

Nowhere, in other words, are the mechanisms known to give rise to and sustain differential access to wealth and power addressed; *and this is to acquiesce in the presentation of reality other than it is*. The commitment to policy input and change articulated in the WHO recommendations, and no less characteristic of Burawoy's policy sociology, needs therefore to be *critiqued as well as commended*. The price paid for what is a thoroughly dubious—because it is the very antithesis of "evidence based"—aspiration for reform is the failure to get to grips with, *to wilfully misrepresent*, capitalism and its contradictions, and a consequent suppression of the case for a more revolutionary rethink.

There are contradictions, too, between the social reality constructed by the WHO's Commission and the neo-Marxist picture painted here; each shares similarities and dissimilarities with poll-based accounts of public perceptions of class and society. The virtue of a critical realist-based, neo-Marxist approach of the sort adopted in this chapter is that it allows for inference to mechanisms that help explain not only capitalism's deepest contradictions, but the contradictory ways in which different classes, groups and individuals understand, forage and subsist in its lifeworlds.

Foundations for a Sociology of Health Inequalities

A key contradiction for this paper is that between social reality, as conveyed in the WHO Report and the Marmot Review, and characteristic of policy sociology, and social reality as discerned in the professional-cum-critical sociology promoted here in the guise of a critical realist-based neo-Marxism (Burawoy 2005). In this section an embryonic neo-Marxist sociology of health inequality is presented: it is both a precis of and addendum to accounts offered previously (e.g., Scambler 2001, 2002, 2007, 2009, 2012). Accounts thus far can be summarized as follows:

1. Regimes of capital accumulation (involving relations of class), and their concomitant modes of regulation (involving relations of command), lead to increasing inequalities of wealth and income, even when flows of material assets are strengthening across populations as a whole.
2. The regime of capital accumulation/mode of regulation prevailing in reorganized capitalism has heralded a particularly steep increase in material inequality occasioned in significant part by the newly asymmetrical dynamic of class-based exploitation and state- or command-based oppression.
3. 1 and 2 are fundamental to a plausible sociology of health inequalities (and, paradoxically, help explain why one is currently lacking in Britain and elsewhere).
4. The endlessly replicated demi-regs linking SECs and other proxies for class with health and longevity, epitomized in the idea of a social gradient, bear transfactual, retroductive testimony both to the existence of class relations and to their causal efficacy for health.
5. Neo-liberalism's state-approved and evangelically-policed policy of *personal responsibility* (dignified and foisted on the health domain via concepts like 'behavioural conditionality') affords ideological cover for 1 and 2.
6. The *greedy bastards hypothesis* (or "GBH") states that Britain's health inequalities are in significant part a function of the shrewdly adaptive, strategic decision-making of the strongly globalized hard-core of its capitalist-executive, facilitated by an as-yet more weakly globalized political or power elite. This highlights the structural, causal-explanatory contribution of the present class/command dynamic to (a) the increasingly unequal distribution of material asset flows, and (b), in part a result of (a), the reduction in other asset flows pivotal for health and longevity, clustered in low-income households.
7. If the flow of material assets remains crucial, other asset flows are also causally pertinent for the production, reproduction and durability of health and longevity: notably, biological, psychological, social, cultural and spatial.
8. It follows from 1–7 that the behaviour of the GBs, *representing* the new class/demand dynamic, be defined as an important "social determinant of health", as *pathogenic*, as worthy of study in its own right.

While the "poor" have been examined exhaustively, it is the study of the "rich" that promises most for the future sociology of health inequalities.

This chapter is an opportunity to make two revisions to the previously published typology of health-bestowing asset flows (which has, with reservations, been commended by some policy-oriented, health-inequalities researchers (see Asthana and Halliday 2006). The first is the assimilation of another asset flow, focused on status or Weber's "social honour" (see the reference to a "symbolic" asset flow in Table 5.1); we will refer hereafter to a symbolic asset flow. The second admits to the well-attested causal salience for health and longevity

Table 5.1 Types of asset flow salient for health and longevity

(1) Biological (or body) assets can be affected by class relations even prior to birth. Low-income families, for example, are more likely to produce babies of low birthweight; and low birthweight babies carry an increased risk of chronic disease in childhood, possibly through biological programming

(2) Psychological assets yield a generalized capacity to cope, extending to what is increasingly conceptualized as 'resilience'. In many ways the 'vulnerability factors' that Brown and Harris (1978) found reduced working-class women's capacity to cope with life-events causally pertinent for clinical depression are class-induced interruptions to the flow of psychological assets

(3) Social assets have come to assume pride of place in many accounts of health inequalities and feature strongly in the work of Marmot and Wilkinson. The terms social assets or social capital refer to aspects of social integration, networks and support. The political use to which social capital is being put should not occasion its neglect

(4) Cultural assets or 'cultural capital' are generated initially through processes of primary socialization and go on to encompass formal educational opportunities and attainment. Class-related early arrests to the flow of cultural assets can have long-term ramifications for employment, income levels, and therefore health

(5) Spatial assets have been shown to be significant for health by area-based studies. These have documented that areas of high mortality tend to be areas' with high rates of net out-migration; and it tends to be the better qualified and more affluent who exercise the option to move

(6) Symbolic assets, representing the variable distribution of 'social honour', are known to impact on health via people's (sense of) social position, especially relative to those others who comprise their reference groups

(7) Material assets refer to "relative deprivation" due to impoverishment and meagre standard of living. The relevance of material assets for health and longevity has long been stressed, although the mechanisms linking low income with health remain much debated

Elaborated from Scambler (2007)

of people's *perceptions of their lot*; this adds a *subjective* dimension to the *objective* array of asset flows. It is not that all seven asset flows have subjective aspects equally significant for health and longevity as their objective aspects, but rather that it is short-sighted to gloss over how people define their situations.

In his *Status Syndrome*, Marmot (2006) argues that it is the subjective not objective face of status that has the greatest bearing on health and longevity. Drawing tacitly on what interactionist sociologists would recognize as reference group theory, he points to the telling significance for health and longevity of people's assessments of their placement and accomplishments *relative to those with whom they share their lifeworlds.* Recalling Thomas' insight that if people define their situations as real they are real in their consequences, it might plausibly be contended that people's working definitions of their situations *vis-à-vis their current asset flows* might bear significantly on their health and prospects. People of low standing in the population as a whole may have a high standing within their local (or virtual) reference groups, with the latter adding to rather than subtracting from their health prospects. It is a matter for resolution through research. What should not be neglected is the degree of causal rootedness of people's subjective evaluations of their asset flows in the objective strength of flow of those same assets; the prepotency of the objective material asset flow; and the causal genesis of individuals' objective material asset flows in the domain of Bhaskar's "real" across many figurations.

The pros of identifying asset flows as the "media of enactment" of the present class/command dynamic outweigh its cons. Chief among the cons is the problem of measurement via modes of operationalization privileged by neo-positivistic advocates of social-epidemiology and policy sociology. Asthana and Halliday (2006) make this point at the conclusion of an otherwise positive commentary. Principal among the pros are its compelling face validity and the fact that it allows for compensation between asset flows. There are solid grounds for affirming that the weakening of one asset flow conducive for health and longevity can be compensated for by the strengthening of another. Few would dispute, for example, that the threat of material hardship can be mitigated, even annulled, by still-strong flows of biological, psychological or social assets. In the same vein, it is evident that a weak spatial asset flow can be compensated for by a strong social or cultural asset flow. Moreover, a positive flow of a subjective status asset might undo the potentially harmful impact of a negative objective status asset.

"WHAT IS TO BE DONE?"

The invocation of Lenin in this sub-heading is deliberate. There is a contradiction, we maintain, between two differently seductive concepts of "making a difference." We contend that today's revised dynamic between relations of class and command, *qua* mechanisms, is as causally responsible for the ineffectiveness of state-sponsored interventions prompted by "Black" and "Acheson" (and predictably "Marmot") as it is for the phenomena they purport to address. The gap in health and longevity between rich and poor, advantaged and disadvantaged, has been maintained, or worse, in reorganized capitalism, notwithstanding a tranche of policies to tackle health inequalities. This should not surprise critical sociologists, let alone neo-Marxists. Moreover it is less tendentious than it might appear, although it remains a serious inconvenience for those with strong vested interests in the *status quo*. It is a matter of record that policy initiatives to reduce inequalities of gender, ethnicity and age, let alone those of class, have fairly routinely been circumvented, undone or have at best constituted exercises in damage-limitation. This is only to be expected in the enduring absence of those structural, cultural and agential changes that comprise efficient preconditions for policy effectiveness. The steps taken to reduce health inequalities to date have been as hesitant and ineffective as those taken to encourage the rich to pay their taxes. No corner has been turned: far from it.

Further, many policies, even when sanctioned or promoted by persuasive elements of the power elite and pursued beyond the constraints of a purely formal parliamentary democracy (Miliband 1961), have as much to do with state legitimation as with accomplishing the shifts they signal. Scambler (2002) has suggested that government documents and policy announcements be interpreted with reference to their "perlocutionary force": that is, in terms of their strategically projected meanings for those from whom the government requires legitimation, support and, intermittently, votes. Measures to tackle health inequalities typically represent forms of distorted, or systematically distorted, communication (Habermas 1984, 1987). In other words, they are primarily strategic: it is more important politically that they demonstrate a compassionate, legitimating, and vote-culling responsiveness to the lifeworld than that they actually reduce health inequalities. Against a raft of policies and initiatives to tackle health inequalities during reorganized capitalism, most conspicuously during the 'neo-liberalism mark II' of Blair and Brown's New Labour, the "social gradient" in health and longevity has at best been held constant. When political push comes to shove, inequalities in general, and health inequalities in particular, lose their appeal for power elites. The public is not its natural master. What price the recommendations of the WHO Commission on Social Determinants of Health (2008) and the Marmot Report (Marmot et al. 2010) being taken seriously in Britain? The bottom line for the capitalist executive/power elite coupling is capitalism's future security, or during rare times of a crisis of legitimation, its survival.

Graham (2007), a leading British professional-cum-policy sociologist, has alluded to without facing up to the salience of wealth and power (Scambler 2009). But she does recognize that at the time of writing: (a) policies to reduce health inequalities are failing, and (b) capitalism after its latest, traumatic financial crisis in 2008–2009 is far from well, or well-received, which affords a small window of opportunity to develop "regulatory institutions and interventionist policies which are 'equity proofed' and therefore pro-poor" (Graham 2009: 213). It is of course more than doubtful whether there is a state of structural/cultural/agential readiness to make manifest and act on a potentially potent mix of rationality, legitimation, and motivation crises. Thatcher was shrewd when she claimed Blair's New Labour as one of her achievements, although she could not have anticipated the bonus of a "relativized", postmodern culture—more precisely, or sociologically, a "culture ideology of consumption" (Sklair 2000)—which has undermined not only class consciousness but any "cognitive" or "universal" narrative favouring change. A pervasive cultural ephemoralization privileging Lyotard's (1984) pick-and-mix petit over grand narratives prevails.

Gamble (2009: 143–163) identifies five principal groups and programmes for change ranging across a broad political spectrum:

(1) Market fundamentalists

Notwithstanding considerable heterogeneity of outlook or emphasis, common to all market fundamentalists is a push for financial stability and for safeguarding the market order. The global financial crisis of 2008–2009 severely discomforted this group, but some unabashed neo-liberals are already displacing blame for it onto regulators and governments. After the manner of Hayek's opposition to Keynes in the 1930s, they argue that periodic crises are normal fare and functional for capitalism: “green shoots of recovery can only emerge after much of the existing vegetation has been burned to the ground” (Gamble 2009: 144). Hence the rejection of government bailouts for banks by conservative Republicans in the US House of Representatives, for some of whom the sight of the Chairman of Goldman Sachs announcing the nationalization of the banks smacked of capitulation, even of the advent of “socialism;” the Obama/Geithner fiscal stimulus plan excited a similar response. Market fundamentalists of this persuasion have even questioned the future of central banks. Market fundamentalists in the USA have their eyes on a retreat by Obama and a Republican tide in 2012.

(2) National protectionists

The priority for national protectionists is the security and welfare of the national community, a priority with special resonance during economic downturns. With spokespersons on the political right as well as the left, they can offer reassurance not only in terms of welfare but in terms of tighter immigration controls. Proposed measures can embrace tariffs and capital controls, crude but often effective devices by which a state can, at least in the short-term, constrain competition and prevent capital shifting abroad, as well as the movement of people. In the thrall of a protracted global recession, a turning away from the global economy and attempts to pursue economic security within relatively closed borders are almost inevitable.

(3) Regulatory liberals

Regulatory liberals sit between (1) and (2). For them there are two lessons from the global financial crisis: (a) the excesses of neo-liberalism must be curtailed, and (b) a new regulatory structure has to be put in place. An open liberal trading and investment order, private property, and the rule of law remain essential building blocks. Countries like Britain, Iceland and Ireland that allowed their financial sectors to expand far faster than the rest of the economy—heralding the “mad money” of “casino capitalism”—most urgently require a new financial architecture (Scambler 2009). The likes of Stiglitz, Krugman and Soros have most assiduously articulated the regulatory liberal case. The pragmatic, regulatory liberal case, however, rests on inter-state deals necessarily involving concessions, notably from the Americans, for example, about the reserve currency status of the dollar and the rules governing trade. The lure of national protectionism in the USA may prove too strong.

(4) Cosmopolitan liberals

There is a utopian element to the programme of cosmopolitan liberals. They aspire to go beyond a regulatory liberal tightening of the economy towards some form of global governance: a global polity for the global marketplace. Often versed in institutions like the UN or in non-governmental organizations, cosmopolitan liberals emphasize issues like human rights, famine relief and climate change. At their most radical, they campaign for a Cobden-like cosmopolitan democracy embedded in international agencies with worldwide legitimacy.

(5) Anti-capitalists

"When there is a full-blown capitalist crisis the time for the gravediggers has arrived" (Gamble 2009: 159). It certainly seems that in many corners of the globe key conditions are in place for a threatening combination of rationality, legitimation and motivational crises. But the ranks of the gravediggers have been seriously depleted in reorganized capitalism: the grand narrative of socialism has taken a battering before, during and since the implosion of the Soviet Union. Such mobilization for change as has occurred has rested less on class-based consciousness (Sartre's 'class for-itself') than on a diverse alliance comprising the "anti-globalization movement". What unites members of this loose-knit movement is a conviction that the benefits of neo-liberalist globalization have accrued to a narrow elite of financiers, corporate directors and property holders. Most recognize that the current global financial crisis is unlikely to reignite a telling demand for socialism, quite the contrary. They do, however, detect some momentum for the quasi-nationalization of banks. The focus of the anti-capitalist programme is state intervention leading to the creation of new countervailing institutions to overcome the domination of the banks and multinationals (reminiscent of the New Deal in 1930s America). While many anti-capitalists live in the developed West, however, the forces of change now rest with the rising economic powers of Asia.

Extant reforms promoted to reduce health inequalities fit most comfortably with a regulatory liberal approach. Social epidemiologists and policy sociologists, most of whom remain non-reflexive about dialectics in general and contradiction in particular, understandably emphasize their pragmatism. The contrary argument in this chapter clearly belongs in the anti-capitalist fold (the positive elements of cosmopolitan liberalism, like the objectives of many (new) social movements, (Hunter 1995), only being attainable is a post-capitalist society). Moreover, Gamble's characterization of the anti-capitalism of the anti-globalization coalition, somewhat surprisingly, provides a reasonable frame for a credible neo-Marxist strategy to diminish health inequalities. Class-based action, or, more saliently, the class input to current 'mobilizing potentials' for change, must not be neglected (Scambler and Kelleher 2006). Notwithstanding this, the socialist agenda has undoubtedly lost constituency and appeal. The highest common denominator for socialists accepting of a neo-Marxist theory of health inequalities would appear to be a strategy of *permanent reform*.

The phrase "permanent reform" is not synonymous with any of the assorted sets of reforms outlined and pursued by the WHO, socio-epidemiologists, policy sociologists and so on, most of whom remain stuck at the level of individual attributes and conditions even when they write explicitly of class (Wright 2009). The target of permanent reform is revolution not reform. Nor do we accept that its target is likely to be met within the parameters of formal or parliamentary democracy. The steering media of the capitalist executive and power elite, money and power respectively, have never been donated or ceded without a struggle; and rarely have these struggles been exclusively peaceful. These are not places reformists want to go; they shy away from a Lenin-like seriousness (Hegel dubs those who advocate philosophies they cannot and do not themselves live by as "unserious").

The strategy of permanent reform has three key properties. First, acknowledging that an individual's health rests on the strength of flow of assets that implicate and underpin multiple facets of life and lifestyle, the term 'reform' is here all-embracing: crucially, it encapsulates material wellbeing. And second, it presumes an all-embracing, relentless, reform-upon-reform momentum until such time as that revolutionary social change that emerges as a precondition for a genuine reduction of health inequalities is accomplished. What the cumulative findings of professional sociology informs us is that to effectively reduce health inequalities is already to have effectively reduced a plethora of other inequalities (above all, material inequalities). The contribution of Wilkinson (1996) and Wilkinson and Picket (2009) is eloquent in this respect (notwithstanding reluctance to address the causes of, and methods for reducing, income inequality (Scambler and Higgs 1999, 2001). It is unlikely that many of the Shibboleths and institutions we currently take for granted—from the monarchy to the ubiquitous and perfidious imperative to work (*qua* wage-labour)—would survive such a revolutionary shift. And third, permanent reform is a strategy that allows for a continuous and dynamic adjustment in line with the effectiveness of this or that reform. This tactical flexibility mitigates against the dangers of a utopian-induced totalitarianism and the violence historically associated with it.

Concluding Remarks on Future Research Agendas

A critical realist-oriented, neo-Marxist research programme for explaining health inequalities must necessarily be multi-focused. Not least among these foci is the need for collations of historical research pertinent to a strategy of permanent reform. Bhaskar's transformational model of social action provides a credible philosophical and conceptual frame for meeting this need. As so often in relation to this topic there is less need for new theory or research than for a reflexive revisiting of what is already known. This is not a call for more "systematic reviews" or "meta-analyses" but for what might be called *meta-reflections*, or thoughtful, independent-minded and critical reassessments of the received theoretical and empirical wisdom delivered by today's dominant paradigms (Scambler 2010).

Beyond a focus on "what is to be done", the other general items which recommend urgent consideration fall into two categories, both qualifying or challenging what has been said so far and introducing new contradictions

Analyses Beyond Nation-States

This chapter has followed convention and the published literature in discussing health inequalities within the territorial borders of a nation-state, for all its acknowledgement of phenomena like financialization, the resurgence of money capital that climaxed in reorganized capitalism's global crisis of 2008–2009. The neo-Marxist offerings of Wallerstein's world-systems theory are sometimes dismissed as old hat; but there is no doubting the need for: (a) a re-orientation of all four of Burawoy's types of sociology to accommodate a reorganized capitalism which is post-nation-state-ist; and (b) the development of a global sociology which goes beyond a mere extension of current North American, European and Australasian perspectives and agendas. The following propositions or conjectures are challenging for theorists, researchers and activists alike:

(1) health inequalities in Britain cannot be explained without sustained analysis of mechanisms which are now increasingly transnational;
(2) health inequalities in Britain cannot be significantly reduced without a fundamental change to the dynamic of class/command relations characteristic of reorganized capitalism;
(3) a 'fundamental change' of this kind in Britain is not credible in the absence of a revolutionary shift in social formation;
(4) such a 'revolutionary shift' cannot occur in Britain alone;
(5) any gains secured as a result of reformist policies in Britain, unless part of an organized, ambitious strategy of permanent reform, are likely to be paid for *in full* by the poor and powerless in semi-peripheral/peripheral or developing societies;
(6) in the short-term, whether or not a strategy of permanent reform prevails in Britain, any gains will be *largely* funded in the currencies of exploitation and oppression in developing societies (Scambler 2007);
(7) in global or reorganized capitalism there are presently contradictions between the elimination/significant reduction of health inequalities in developed nation-states like Britain and initiatives to reduce health inequalities in developing societies (Coburn 2009).

Proposition (7) presages a revisiting of the central argument of this chapter, if not its philosophical thrust. Nor should this have crept up on sociologists unaware given the pioneering work of the likes of Doyal (1979). The acceptance of the need for a post-nation-state orientation to phenomena like health inequalities has been tardy. But there is a need also for a coming to terms with the fact that humans are at one and the same time biological, psychological and social beings (although this is of course more readily acknowledged within the prevailing medically-oriented, socio-epidemiological orthodoxy).

Analyses Beyond the Social

References to the work of Bhaskar, Archer and Creaven earlier acknowledged that humans are complex articulations of psycho-organic and socio-cultural properties. Moreover, humanity's species-being and attendant powers and capacities are transmitted "upstream" into social interaction, even as structural-cultural and agential conditioning are transmitted "downstream" to individual humans (Creaven 2000:

140). And then there is inter- and intra-stratum emergence! Given the requirement also to factor in contingency on the one hand, and humans' (admittedly rarely exercised or tested) capacity for exercising the transformative powers of free will on the other, sociology's lack of potential for 'wrapping up' health inequalities should be ceded. Taking this complexity on board, while allowing for the irreducibility and integrity of the mechanisms of interest to sociologists, a second set of propositions or conjectures is suggested:

- while any sociological theory of health inequalities must conceptualize social structures and their media of enactment—health-bestowing asset flows, or something like them—and focus on downstream transmission, it is no less certain or significant that these same social structures and media of enactment are necessarily emergent from more "basic" mechanisms transmitted upstream;
- the interplay of the biological, psychological and social is likely to vary throughout the lifecourse, and there may well be empirically discernible critical junctures, notably early childhood (possibly also for particular diseases);
- the jury is still out on the optimum tactics for meeting the challenge of the interplay of the biological, psychological and social: that is, whether to work 'with' or 'against' geneticists, biologists and so on (we have toyed with both (Scambler and Scambler 2003; Scambler et al. 2010);
- the Popperian notion of "fallibilism" still holds: neo-Marxist theories, including those of health inequalities, remain open to revision;
- given human reflexivity, less deniable since the 1970s, there is a strong case for taking the social in general, and class relations in particular, seriously in the health inequalities debate (Scambler and Higgs 2001);
- the sociological contribution itself embraces macro-, meso-, and micro-inputs;
- the multi-disciplinary investigation of health inequalities commands innovative, post-positivist methodologies oriented to 'making an empirical case'.

What this chapter favours is an analysis of health inequalities in the "spirit of Marx"; but it allows for a century and a half of social change.

References

Archer, M. (1995). *Realist social theory: The morphogenetic approach*. New York: Cambridge University Press.

Asthana, S., & Halliday, J. (2006). *What works in tackling health inequalities? pathways, policies and practice through the lifecourse*. Bristol: Policy Press.

Bartley, M. (2004). *Health inequality: An introduction to theories, concepts and methods*. Cambridge: Polity Press.

Bhaskar, R. (1978). *A realist theory of science* (2nd ed.). Brighton: Harvester Press.

Bhaskar, R. (1987). *Scientific realism and human emancipation*. London: Verso.

Bhaskar, R. (1989). *The Possibility of Naturalism: A Philosophical Critique of Contemporary Human Sciences* (2nd ed.). London: Harvester Wheatsheaf.

Buechler, S. (2008). *Critical sociology*. Boulder: Paradigm Publishers.

Burawoy, M. (2005). For public sociology. *American Sociological Review, 70*, 4–28.

Carroll, W. (2008). The corporate elite and the transformation of financial capital: a view from Canada. In M. Savage & K. Williams (Eds.), *Remembering elites* (pp. 49–62). Oxford: Blackwell.

Coburn, D. (2009). Inequality and health. In L. Panitch & C. Leys (Eds.), *Morbid symptoms: Health under capitalism* (pp. 42–56). Pontypool: Merlin Press.

Collier, A. (2002). Dialectic in Marxism and Critical Realism. In A. Brown, S. Fleetwood, & J. Roberts (Eds.), *Critical realism and marxism* (pp. 155–167). London: Routledge.

Creaven, S. (2000). *Marxism and realism: A materialist application of realism in the social sciences*. London: Routledge.

Creaven, S. (2002). Materialism, realism and dialectics. In A. Brown, S. Fleetwood, & J. Roberts (Eds.), *Critical realism and marxism* (pp. 131–154). London: Routledge.

Doyal, L. (1979). *The political economy of health*. London: Pluto Press.

Ehrbar, H. (2002). Critical realist arguments in Marx's capital. In A. Brown, S. Fleetwood, & J. Roberts (eds.), *Critical realism and marxism* (pp. 43–56). London: Routledge.

Fleetwood, S. (2002). What kind of theory is Marx's labour theory of value? A critical realist inquiry. In A. Brown, S. Fleetwood, & J. Roberts (Eds.), *Critical realism and marxism* (pp. 57–86). London: Routledge.

Gamble, A. (2009). *The spectre at the feast: Capitalist crisis and the politics of recession*. London: Palgrave Macmillan.

Graham, H. (2007). *Unequal lives: Health and socioeconomic Inequalities*. Maidenhead: Open University Press.

Graham, H. (2009). Tackling health inequalities: the scope for policy. In H. Graham (Ed.), *Understanding health inequalities* (pp. 213–227). Maidenhead: Open University Press.

Habermas, J. (1975). *Legitimation crisis*. Boston: Beacon.

Habermas, J. (1984). *Theory of communicative action: Reason and rationalization of society* (Vol. 1). London: Heinemann.

Habermas, J. (1987). *Theory of communicative action: Lifeworld and system: A critique of functionalist reason* (Vol. 2). Cambridge: Polity Press.

Harvey, D. (2005). *A brief history of neoliberalism*. Oxford: Oxford University Press.

Hunter, A. (1995). Rethinking revolution in light of the new social movements. In M. Darnovsky, B. Epstein, & R. Flacks (Eds.), *Cultural politics and social movements* (pp. 101–126). Philadelphia: Temple University Press.

Lawson, T. (1987). *Economics and reality*. London: Routledge.

Lyotard, J.-F. (1984). *The postmodern condition*. Manchester: Manchester University Press.

Marmot, M. (2006). *Status syndrome*. London: Bloomsbury.

Marmot, M., Atkinson, T., Bell, J., Black, C., Broadfoot, P., Diamond, J. C., et al. (2010). *Fair society*. Healthy Lives: The marmot review. Technical report.

Marx, K. (1976). *Capital* (Vol. 1). Harmondsworth: Penguin.

Miliband, R. (1961). *Parliamentary socialism*. London: Verso.

Oborne, P. (2007). *The triumph of the political class*. London: Simon and Schuster.

Sayer, A. (1992). *Method in social science: A realist approach* (2nd ed.). London: Routledge.

Scambler, G. (2001). Critical realism, sociology and health inequalities: social class as a generative mechanism and its media of enactment. *Journal of Critical Realism, 4*, 35–42.

Scambler, G. (2002). *Health and social change: A critical theory*. Buckingham: Open University Press.

Scambler, G. (2007). Social structure and the production, reproduction and durability of health inequalities. *Social Theory and Health, 5*, 297–315.

Scambler, G. (2009). Capitalists, workers and health: illness as a 'side-effect' of profit making. *Social Theory and Health, 7*, 117–128.

Scambler, G. (2012). Health inequalities. *Sociology of Health and Illness, 34*, 130–146.

Scambler, G., & Higgs, P. (1999). Stratification, class and health: class relations and health inequalities in high modernity. *Sociology, 33*, 275–296.

Scambler, G., & Higgs, P. (2001). The dog that didn't bark taking class seriously in the health inequalities debate. *Social Science and Medicine, 52*, 157–159.

Scambler, G., & Kelleher, D. (2006). New social and health movements: issues of representation and change. *Critical Public Health, 16*, 219–231.

Scambler, G., & Scambler, S. (2003). Realist agendas on biology, health and medicine. In S. Williams, L. Birke, & G. Bendelow (Eds.), *Debating biology: Sociological reflections on health, medicine and society*. London: Routledge.

Scambler, G., Afentouli, P. & Caroline, S. (2010). Discerning biological, psychological and social mechanisms in the impact of epilepsy on individuals' lives: A framework and agenda. In G. Scambler & S. Scambler (Eds.), *New directions in the sociology of chronic and disabling conditions; assaults on the Lifeworld* (pp. 133–147).London: Palgrave.

Scott, J. (2008). Modes of power and the re-conceptualization of elites. In M. Savage & K. Williams (Eds.), *Remembering elites*. Oxford: Blackwell.

Sklair, L. (2000). *The transnational capitalist class*. Oxford: Blackwell.

Smith, M. (1999). *The core executive in Britain*. London: Macmillan.

WHO. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. Final report of the commission on social determinants of health. Geneva: WHO.

Wilkinson, R. (1996). *Unhealthy societies: The afflictions of inequality*. London: Routledge.

Wilkinson, R., & Kate, P. (2009). *The spirit level*. London: Allen Lane.

Wright, E. (2009). Understanding class: towards an integrated analytical approach. *New Left Review, 60*, 101–116.

Chapter 6
Fundamental Cause Theory

Jo C. Phelan and Bruce G. Link

One of the most basic and critical problems addressed by medical sociologists is a very old one—the fact that society's poor and otherwise less privileged members live in worse health and die much younger than the rich and more privileged ones. Socioeconomic inequalities in health and mortality are very large, very robust, and very well documented. Typically, age-adjusted risk of death for those in the lowest socioeconomic level is double to triple that for the highest level (Antonovsky 1967; Sorlie, Backlund and Keller 1995; Kunst, Feikje and Mackenbach 1998). To illustrate, in 2005, all-cause age-adjusted death rates per 100,000 for individuals between the ages of 25 and 64 were strongly related to education level for both men (<12 years 821, 12 years 605, >12 years 249) and women (<12 years 472, 12 years 352, >12 years 165) (National Center for Health Statistics 2008). Similar levels of inequality are observed between income groups.

These inequalities in overall health and mortality are not only very common in modern times but have persisted at similar levels at least since the early nineteenth century (Antonovsky 1967). This persistence is puzzling, because major diseases and risk factors that appeared to account for the inequalities seen in earlier periods, i.e. deadly infectious diseases such as diphtheria, measles, typhoid fever and tuberculosis fueled by over-crowding and poor sanitation in low socioeconomic status (SES) homes and communities, have been virtually eradicated in the developed world. Rather than disappearing, SES inequalities in mortality have persisted and now reflect new major causes of death including cancers and cardiovascular illness, fueled by risk factors such as poor diet, inadequate exercise, and smoking,

---

J. C. Phelan (✉)
Columbia University, New York, USA
e-mail: jcp13@mail.cumc.columbia.edu

B. G. Link
Columbia University and New York State Psychiatric Institute, New York, USA
e-mail: bgl1@mail.cumc.columbia.edu

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_6,

which are more common in lower SES groups. Socioeconomic inequalities in health and mortality have even survived concerted efforts to eliminate them, such as institution of the United Kingdom's National Health Service, the vast publicly funded healthcare system in the UK (Black et al. 1982).

It is this *persistence across time* that we aimed to explain with our theory of fundamental causes (Link and Phelan 1995). We reasoned that we cannot claim to understand why health inequalities exist if we cannot explain why they persist under conditions that should eliminate or reduce them, and if we can understand why they persist, this may provide clues to the more general problem of the causes of health inequalities. That is, the puzzling persistence of inequalities may provide a lever for understanding the more general fact of their existence.

In this paper, we will explicate the theory as it has developed over the past 17 years, offer new ideas on its elaboration and extension, and discuss how the theory has been used to test ideas about inequalities and health and guide policies to reduce inequalities.

Original Statement of the Theory

The theory of fundamental causes is rooted in Lieberson's (1985) concept of basic causes, which was first applied to the association between SES and mortality by House and colleagues (House et al. 1990, 1994). The theory has been developed primarily by Link and Phelan (1995, 2010), Phelan et al. (2004, 2010) with significant elaboration and extension by Lutfey and Freese (Lutfey and Freese 2005; Freese and Lutfey 2010) and by Clouston et al. (2011).

The primary statement of the theory appeared in 1995. According to Link and Phelan (1995), a fundamental social cause of health inequalities has four essential features: First, it influences multiple disease outcomes, meaning that it is not limited to only one or a few diseases or health problems. Second, it affects these disease outcomes through multiple risk factors. Third, fundamental social causes involve access to resources that can be used to avoid risks or to minimize the consequences of disease once it occurs. Finally, the association between a fundamental cause and health is reproduced over time via the replacement of intervening mechanisms. It is their persistent effect on overall health in the face of dramatic changes in mechanisms that led us to call them "fundamental."

The Central Role of Flexible Resources for SES Inequalities in Health

According to the theory of fundamental causes, the reason that SES is related to multiple disease outcomes through multiple pathways that change over time is that individuals and groups deploy resources to avoid risks and adopt protective strategies. Key resources such as knowledge, money, power, prestige, and beneficial social connections can be used no matter what the risk and protective factors are in a given circumstance. Consequently, fundamental causes affect health even when the profile of risk and protective factors and diseases change radically. If the problem is plague, for example, a person with greater resources is better able to avoid areas where the disease is rampant. If the problem is diabetes, a person with greater resources is better able to maintain a healthy lifestyle and get the best medical treatment available. Because these resources can be used in different ways in different situations, we call them flexible resources.

To understand how flexible resources might facilitate the creation of new mechanisms linking SES and health, consider the following example. Screening for several deadly cancers has become possible over the past few decades, making it feasible to detect cancer or its precursors earlier, thereby helping to prevent mortality from these cancers. Since the screening procedures represent relatively recent technological advances, one can imagine a time before the procedures existed, when resources had no bearing on access to cancer screening because the procedures did not exist. There was no SES → Access to Screening → Health mechanism. But after the screening procedures were developed, people with more resources could use those resources to gain access to the life-saving screens. Link et al. (1998) presented evidence from the Behavioral Risk Factor Survey showing that screens for cervical and breast cancer are indeed associated with education and income. A new mechanism had emerged to link social conditions to health outcomes. The idea is that this process extends beyond this example to many, many others.

The flexible resources that are central to fundamental-cause theory operate at both individual and contextual levels. At the individual level, flexible resources can be conceptualized as the “causes of causes” or “risks of risk” that shape individual health behaviors by influencing whether people know about, have access to, can afford, and receive social support for their efforts to engage in health-enhancing or health-protective behaviors. In addition, resources shape access to broad contexts that vary dramatically in associated risk profiles and protective factors. For example, a person with many resources can afford to live in a high SES neighborhood where neighbors are also of high status and where, collectively, substantial clout is exerted to ensure that crime, noise, violence, pollution, traffic and vermin are kept at a minimum and that the best health-care facilities, parks, playgrounds, and food markets are located nearby. Once a person has used SES-related resources to locate in an advantaged neighborhood, a host of health-enhancing circumstances comes along as a “package deal.” Similarly, a person who uses educational credentials to procure a high-status occupation inherits a package deal that is more likely to include excellent health benefits and less likely to involve dangerous conditions and toxic exposures. Similarly, Cockerham (2005) describes how health lifestyles are shaped by one’s status group. According to Cockerham, social norms and other social supports such as the health-product industry reinforce distinctive health lifestyles in different status groups, and the lifestyles of high SES groups are particularly healthy ones. In these circumstances, the person benefits in numerous ways that do not depend on his/her own initiative or ability to personally construct a healthy situation—it is an “add on” benefit operative at the contextual level. The same sort of add-on benefit can be enjoyed in other important contexts such as social networks, families and marriages.

Refinements of Fundamental-Cause Theory

Metamechanisms

Freese and Lutfey (2010) elaborated Link and Phelan's core idea of flexible resources (money, power, knowledge, prestige, and beneficial social connections) by proposing four metamechanisms through which fundamental causes produce their effects. The first metamechanism— "means"—overlaps most strongly with Link and Phelan's concept of resources. In this metamechanism, an individual purposefully uses his or her socioeconomic resources, or means, to improve his or her health.

"Spillovers" (the second metamechanism), described previously as contextual resources, occur when other people in an individual's social network purposefully use their resources to benefit their own health, and these efforts produce health benefits for the individual without any purposeful action on the individual's part. Freese and Lutfey's third metamechanism is "habitus", whose role in health inequalities was developed by Cockerham (2005), as referenced in the previous section. In this metamechanism, different norms, dispositions and lifestyles develop among different social class groups, with those of higher status groups being more beneficial to health. For example, Bourdieu (1984) found that French working-class people preferred foods that are cheap and nutritious, whereas professionals preferred a diet that was tasty, healthy, light and low in calories. In the case of habitus, unlike spillovers, the individual's health-related behavior does play a role in his or her own health outcomes, but unlike the "means" metamechanism, these actions are not consciously aimed at improving one's health. Rather, they are preferences resulting from differential class-related socialization. The fourth metamechanism lies in the actions of "institutions." Lutfey and Freese refer here not to individuals' utilization of or access to health-related institutions but to the agentic, dynamic action of institutions that treats people differentially according to their SES in a way that affects health inequalities. For example, Lutfey and Freese (2005) found that two diabetes clinics serving higher vs. lower SES patients differed in many aspects of medical care and educational resources that would be expected to contribute to SES differences in diabetes outcomes.

One contribution of Freese and Lutfey's delineation of metamechanisms is to extend the set of processes linking fundamental causes to health inequalities. Although many of these processes are encompassed by Link and Phelan's resources of money, knowledge, power, prestige, and beneficial social connections, some—particularly those described under the institutional metamechanism—are not. More importantly, we believe, the value of this theoretical development is to define and delineate these processes and the distinctions between them more precisely.

Continuity and Change in Health Inequalities

Fundamental-cause theory has two sets of implications for continuity and change in health inequalities over time. The theory's basic principle that a superior collection of flexible resources allow higher SES individuals to avoid disease and death in widely divergent circumstances leads to the prediction that, at any given time, greater resources will produce better health, and consequently, inequalities in health and mortality will persist as long as resource inequalities do.

At the same time, this long-term stability in the association between SES and health/mortality results from the amalgamation of effects across many specific processes and conditions. New knowledge and technology relating to innumerable diseases emerges constantly. The nature of the new knowledge varies, and the social conditions in which this knowledge emerges also vary. In general, new knowledge about a disease will lead to a shift in the disease gradient in favor of higher SES individuals. However, new developments in disease prevention or treatment will not all have an identical impact on this gradient. Another reason for the long-term stability in the SES/mortality association is that old mechanisms wane to be replaced by new ones. Again, the demise of mechanisms is not a uniform process: Some mechanisms have long lives, others short ones. In this section, we take steps toward understanding some of the conditions that lead to variations in the processes of mechanism generation and demise. Our aim is not only to strengthen the theory but to understand how it may be possible to weaken new mechanisms connecting SES and disease/mortality and how old ones may be undermined.

Specifying Conditions that Modify the Impact of New Knowledge on Health Inequalities

New health-enhancing knowledge and technology emerges in the context of pre-existing conditions. The prototype that most clearly exemplifies how fundamental-cause processes operate is a situation in which we know nothing about how to prevent or cure a disease and there is no association between SES and morbidity and mortality due to that disease. Then, upon discovery of modifiable risk or protective factors, an inverse association between SES and the disease in question emerges. But, other situations that differ from this prototype are not only possible but to be expected.

One factor that should modify the impact of emergent knowledge is the pre-existing SES distribution of the disease at the time of a new advance in prevention or treatment. The pre-existing association between the disease and SES is unlikely to be null for two reasons. First, new knowledge and technology often arrive in the context of prior knowledge and interventions, which may have already shaped SES's association with the disease. Second, even in the absence of knowledge about its risk and protective factors, a disease may be influenced by factors that are associated with SES—either directly or inversely. The distribution of the risk factor or disease by SES prior to the availability of the new knowledge will influence the impact of the new knowledge, because the new knowledge will help those who have the disease or risk factor (or could have the risk factor).

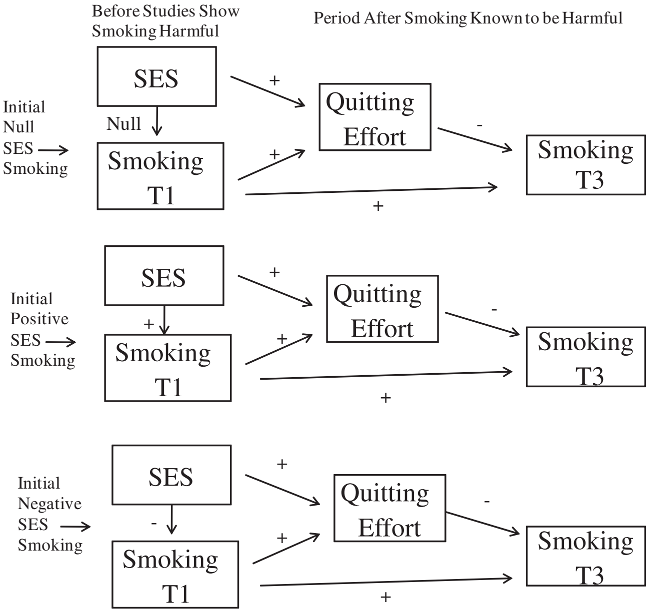

Fig. 6.1 Predicted impact of knowledge about the harmful effects of smoking in different hypothetical scenarios for the initial association between SES and smoking

An example will clarify what we mean. Figure 6.1 illustrates the predicted impact of knowledge about the harmful effects of smoking in different hypothetical scenarios for the initial association between SES and smoking—positive, null and negative. On the left-hand side is the situation in the early 1950s before new knowledge about the harmful effects of smoking was available. At a second time point, after new knowledge became available, we consider a variable we call "quitting effort," and at a third time-point we consider subsequent smoking behavior. We portray the association between SES and quitting effort as positive with the idea that people of higher SES are more likely (for many reasons related to various resources) to engage in quitting efforts. We also portray a positive association between smoking at Time 1 and subsequent quitting effort because the new knowledge is about a risk factor that smokers have and that is therefore especially applicable to them. Quitting efforts at Time 2 reduce subsequent smoking behavior, and there is a positive association between smoking at Time 1 and subsequent smoking.

If the initial association between SES and smoking is **null**, much like the actual situation in the early 1950s, an inverse association between SES and smoking emerges over time through the SES → quitting effort → smoking pathway.

If the initial association between SES and smoking is **positive** such that people of higher SES are more likely to smoke, then two pathways, (1) SES → quitting effort → smoking, and (2) SES → Smoking T1 → Quitting Effort → Smoking T3 will contribute to an inverse association between SES and smoking at T3.

At the same time a third path, SES → Smoking T1 → Smoking T3, will contribute to the maintenance of a positive association between SES and smoking, because people who initially smoked, more of whom were of high SES, are more likely to continue to do so. If this latter path is strong, a positive association between SES and smoking would remain at T3, but would be weaker than the SES-smoking association at T1.

Finally, if the initial association between SES and smoking is **negative** such that people of lower SES are more likely to smoke, something unexpected can occur. First consider two pathways that lead to expectable results: (1) SES → quitting effort → smoking, and (2) SES → Smoking T1 → Smoking T3 will contribute to an inverse association between SES and smoking T3. However, the pathway SES → Smoking T1 → Quitting Effort → Smoking T3 (- * + * - = +) will contribute to a positive association between SES and smoking at T3. The reason this occurs is that the new health-enhancing information that leads to quitting efforts benefits more people of low SES because more of them smoke at T1. If this pathway is strong, it could overwhelm the pathways driving an inverse association and lead us to conclude that the new knowledge (and resultant quitting behavior response) reduces disparities.

We call this a "give back effect" (Link and Phelan 2010), because the pathway we are describing could not have occurred without the prior creation of an inverse association between SES and smoking. The strong SES → HIV/AIDS association provides a starting point that allows the anti-retroviral drugs to "give back" some equality even though they may also exemplify a fundamental-cause process in which the drugs are not distributed equally across social classes or race and ethnic groups. In this way, interventions that target diseases that are already characterized by inequalities can reduce inequalities in that disease. Importantly, from a fundamental-cause perspective, if the drugs had been developed earlier, before the strong SES → HIV/AIDS association emerged and if the drugs had been mal-distributed by SES at that time, they would have contributed to an inverse association between SES and mortality due to AIDS.

Mechanism Demise and Death

Whereas it is understandable that greatest attention has been given to the creation of mechanisms that produce health inequalities, fundamental-cause theory is predicated on the idea that mechanisms are *replaced*. Replacement requires that old mechanisms wane in importance over time. In fact, the theory emerged in part *because* prominent risk-factor mechanisms associated with vicious infectious diseases declined in significance as germ theory, improved sanitation, and vaccination came into existence. Thus, understanding the demise and death of mechanisms linking flexible resources to disease is an important area that needs more development and testing. We offer two examples. Salk's discovery of the polio vaccine is an example of a mechanism that was very short-lived. Before his discovery, people of all resource levels were afflicted, including, for example, President Franklin Roosevelt. After the discovery, resource-rich individuals were more likely to receive the vaccine and be protected. A mechanism linking resources to health existed, but only for a short time. The vaccine was quickly approved for widespread dissemination to the United States population, and polio was virtually eradicated here. Other mechanisms remain potent for a very long time. For, example the discovery of the Pap test for the early detection and prevention of cervical cancer has existed since the 1940s. Early on, access to the test was shaped by flexible resources creating an inequality in the use of this life-saving screen that remains prominent today. As these examples suggest, some mechanisms become long-lasting while others have short lives. If we can understand what leads to the demise of mechanisms and especially how that decline is related to flexible resources, we may open avenues to speed such a demise and reduce health inequalities. Indeed, much of the public health significance of fundamental-cause theory may reside in understanding how the link between flexible resources and health-relevant risk and protective factors has been broken.

Clouston et al. (2011) further elaborate and systematize the idea of mechanism demise and death by suggesting that social inequalities in health rise and fall according to a predictable dynamic process, which they call the “unnatural history of disease.” Clouston et al. (2011) characterize the history of disease as falling into four stages: (1) The Natural Mortality stage is characterized by a lack of knowledge about prevention or effective treatment. Diseases in this stage are either randomly distributed across cleavages of advantage or are distributed non-randomly due to differential exposures to unknown causes of the disease. Consequently, diseases in this stage sometimes favor advantaged groups, other times favor disadvantaged ones, and still other times show no association with advantage. (2) In the stage of Producing Inequalities, populations develop new capacities to reduce the mortality-burden of a disease, and the benefits of this capacity are unevenly distributed among SES groups, producing health inequalities. Fundamental-cause theory and its tests have focused largely on the transition from the first to the second stage. (3) To the extent that health-beneficial innovations become more universal and evenly distributed throughout the population, Clouston et al. (2011) predict a decrease in social inequalities in the Reducing Inequalities stage. This can occur if the innovation saturates the advantaged group, making further reduction impossible, or if diffusion efforts are sufficiently focused and the innovation is made widely accessible. In this situation, inequalities will stabilize or even shrink. (4) In the Reduced Mortality and Disease Death stage, a specific health innovation becomes universal, and no more gains can be made, regardless of socioeconomic status. This asymptote may be determined either by the effectiveness of the treatment (Reduced Mortality) or by the eradication of the disease itself (Disease Death).

Whether and when a disease moves from one stage to another will be influenced by social factors such as political and social efforts to reduce mortality in disadvantaged groups and biological factors such as the long incubation periods for some diseases such as lung cancer (Rubin 2011), and cultural factors such as religiously or ideologically based resistance to health interventions such as the Human Papilloma Virus (HPV) (Colgrove 2006).

Returning to our first point in this section on continuity and change in health inequalities, Clouston et al. (2011) describe how SES associations with death from particular causes may be in a constant state of flux. At the same time, fundamental-cause theory predicts that these changes with respect to particular diseases combine to produce overall inequalities in mortality that will persist as long as SES inequalities do.

Extending the Theory

Link and Phelan developed fundamental-cause theory with the aim of understanding and addressing a particular and important problem—the persistence over time of extreme levels of socioeconomic inequalities in health and mortality. However, it may be fruitful to expand reasoning about fundamental causes beyond this problem (see Lieberson 1985; Lutfey and Freese 2005) to include outcomes other than health and mortality and fundamental causes other than SES. Health and longevity are clearly desirable ends but are just as clearly not the only goals important to humans. In their study of diabetes patients, Lutfey and Freese (2005) encountered cases in which individuals sacrificed better health outcomes in the pursuit of status. Other highly desired outcomes include power, affiliation, self-esteem, identity, freedom, creation, leisure, and subsistence (Maslow 1943; Max-Neef, Elizalde, Hopenhayn 1989). It is expectable that the conditions that allow SES to operate as a fundamental cause of health inequalities—SES affecting multiple aspects of these outcomes through the application of SES-related resources via multiple mechanisms that change over time—would apply to these other outcomes as well.

It may also be fruitful to consider whether other social forces of racism, or social statuses, such as ethnicity, race, gender, sexual orientation, or disability status may operate as fundamental causes. To point the way toward evaluating other social statuses as potential fundamental causes of inequalities in health and mortality, consider that, according to the theory, SES operates as a fundamental cause of health inequalities because SES overlaps so strongly with resources of money, knowledge, power, status and beneficial social connections. These resources are key—they are what bestow the health benefits associated with high SES. Because the resources are the key, SES must be strongly linked to them across time for SES to operate as a fundamental cause. To the extent that other social statuses are intimately linked to resources of money, knowledge, power, prestige, and beneficial social connections over time, those statuses should also operate as fundamental causes of health inequalities. However, to the extent that a social status has an association with health-enhancing resources that is weak or that changes significantly over time, we do not expect it to reproduce its association with health, as does a fundamental cause.

Social forces or structural conditions, such as racism or racial residential segregation (Williams and Collins 2001), may also operate as fundamental causes of health inequalities. Both result in a differential distribution by race of resources of money, power, prestige, knowledge and beneficial social connections. This differential distribution leads to inequalities in multiple health outcomes via multiple mechanisms. Racism as an enduring cause of racial inequalities in health, mortality, and other life chances has been clearly characterized by the replacement of mechanisms. When some mechanisms—such as slavery, violence and overt discrimination—were largely blocked by law, others—such as covert discrimination and interpersonal stigmatization—replaced them (Blackmon 2008; Gaertner and Dovidio 1986).

Using the Theory: Empirical Testing and Policy Implications

Testing the Theory

Empirical tests of fundamental-cause theory are not obvious or straightforward. A demonstration of socioeconomic inequalities in health or mortality, even one that persists over time, does not in itself constitute support for the theory. It is precisely the nearly ubiquitous inverse association between SES and mortality that the theory attempts to explain. Demonstrating this association in any particular circumstances cannot adjudicate between fundamental causes and other possible explanations of those facts.

Empirical support for the theory relies on evaluating the four essential features of a fundamental cause of health inequalities (Link and Phelan 1995): (1) SES influences multiple disease outcomes; (2) SES is related to multiple risk factors for disease and death; (3) the deployment of resources plays a critical role in the association between SES and health/mortality; and (4) the association between SES and health/mortality is reproduced over time via the replacement of intervening mechanisms. In the following sections, we illustrate how each of these components can be tested and summarize the state of empirical evidence on each component.

Evidence that SES is related to multiple disease outcomes via multiple risk factors.

The first two propositions are strongly supported by empirical data. Low SES is related to a multiplicity of diseases and other causes of death. The broad generality of this association can be summarized with two sets of facts: Low SES is related to mortality from each of the broad categories of chronic diseases, communicable diseases, and injuries (Pamuk et al. 1998; National Center for Health Statistics 2008) and from each of the 14 major causes of death in the International Classification of Diseases (Illsley and Mullen 1985).

There is also clear evidence that SES is associated with numerous risk and protective factors for disease and other causes of death, both currently and in the past. These include smoking, sendentarism, and being overweight (Lantz et al. 1998; Link 2008); stressful life conditions (Turner et al. 1995; House and

Williams 2000); social isolation (House and Williams 2000; Ruberman et al. 1984); preventive health care (Dutton 1978; Link et al. 1998); and crowded and unsanitary living conditions, unsanitary water supplies, and malnutrition (Rosen 1979).

Lutfey and Freese (2005) describe this component of the theory as involving a "massive multiplicity of mechanisms." They suggest that, because fundamental-cause processes are "holographic," such a multiplicity of mechanisms should be found in all or most particular instances in which SES and health outcomes are connected. Using an ethnographic analysis, they use the example of routine diabetes care in two socioeconomically contrasting clinics to articulate several concrete ways in which differential health outcomes emerge in the two clinics, for example, through differences in continuity of care, "costs of complying" with treatment regimens, and knowledge about diabetes. Similar analyses conducted in a variety of contexts relating to treatment or prevention of a variety of diseases would enrich our understanding of the pathways through which SES influences health and longevity in a way that quantitative studies cannot.

Evidence that the Deployment of Resources Plays a Critical Role in the Association Between SES and Health

Central to fundamental-cause theory is the idea that resources of money, knowledge, power, prestige, and beneficial social connections are critical to maintaining a health advantage. Empirically testing the importance of resources *per se* is difficult, because it requires the identification of situations in which the ability to use socioeconomic resources can be analytically separated from SES itself, for example, situations in which high SES persons are prevented from using their resources to gain a health advantage. If the utilization of resources is critical in maintaining health or prolonging life, then in situations in which the resources associated with higher status are of no use, high SES should confer no advantage, and the usually robust association between SES and health or mortality should be greatly reduced.

One such situation occurs when the causes and cures of fatal diseases are unknown. In these circumstances, socioeconomic resources cannot be used to avoid death due to these diseases, because it is not known how the resources should be deployed. Thus, to the extent that the ability to use socioeconomic resources is critical in maintaining SES inequalities in mortality, there should be strong SES gradients in mortality for causes of death that are highly preventable—for which we have good knowledge and effective measures for prevention or treatment. However, for causes of death about which we know little regarding prevention or treatment, SES gradients in mortality should be much weaker. Consistent with this prediction, Phelan et al. (2004) found that socioeconomic inequalities in mortality were significantly more pronounced for causes of death that were reliably rated by two physician-epidemiologists as being highly preventable (such as lung cancer and ischemic heart disease), and thus more amenable to the application of flexible resources than for causes that were rated as not very preventable (such as brain cancer and arrhythmias). Although they do not address or explicitly test fundamental-cause theory, three other studies that reported evidence on this issue also found that the SES-mortality association was stronger for preventable as opposed to less-preventable causes of death (Dahl et al. 2007; Marshall et al. 1993; Song and Byeon 2000).

Evidence for the validity and generality of these findings is strengthened by a second study that employed a similar research strategy but examined a different set of causes of death, confined attention to treatment rather than including prevention, used a different and more objective measure of amenability to treatment, and examined racial and ethnic differences as opposed to socioeconomic ones.[1] Tehranifar et al. (2009) identified cancers that are more or less amenable to treatment independently of and prior to hypothesis testing, and examined whether racial/ethnic differences in disease-specific mortality varied according to the degree to which that disease is amenable to available medical intervention. This study used five-year relative survival rates for 53 different cancer sites, reflecting effectiveness of treatment and/or early detection methods, as the measure of treatability of each cancer site. Consistent with fundamental-cause theory, survival disparities comparing disadvantaged minority groups (African Americans, American Indians and Hispanics) to whites were substantially greater for cancers that are more amenable (e.g. hazard ratios of 1.41, 1.42 and 1.13 for African Americans, American Indians and Hispanics versus whites, respectively, from mostly amenable cancers with five-year relative survival rates ≥ 70 %) to treatment than they were for cancers that were less so (e.g. hazard ratios of 1.05, 1.10 and 1.01 for African Americans, American Indians and Hispanics versus whites, respectively, for non-amenable cancers with five-year relative survival rates <40 %).

These studies show that, somewhat ironically, one way in which fundamental-cause theory can be tested is by looking for exceptions to the strong SES gradient in health or mortality that is almost always observed—exceptions in which the ability to use resources to gain a health advantage is blocked. In these examples, the use of socioeconomic resources to improve health is blocked because risk factors are unknown and treatments do not exist (Phelan et al. 2004; Tehranifar et al. 2009). Other situations in which resources may be unhelpful or even harmful and therefore may be exploitable for testing of the theory are the situation in which prevailing medical recommendations are discovered to be harmful (Carpiano and Kelly 2007) and the case of old age, when the growing frailty of the body may place limits on effectiveness of interventions and therefore of resources (Phelan et al. 2004).

---

[1] Fundamental-cause theory was developed to explain the enduring effects of SES on health and mortality. It is possible that other social statuses, such as race, ethnicity or gender, also have enduring associations with resources of money, knowledge, power, prestige and beneficial social connections and with health and mortality, and may also operate as fundamental causes. Even if not, however, race and ethnicity are currently strongly related to resources and consequently would be expected to behave similarly to SES in analyses such as Tehranifar's, that focus on the current health context.

Evidence that the Association Between SES and Health/Mortality is Reproduced Over Time via the Replacement of Intervening Mechanisms

The fourth essential feature of SES as a fundamental cause of health inequalities is that the association between SES and health/mortality is reproduced over time via the replacement of intervening mechanisms. This key element of the theory arose from two sets of observations: (1) the SES-mortality association persisted over time despite the decline of previously important mechanisms (e.g., poor sanitation and widespread death from infectious disease) linking them and (2) new, previously weak or absent, mechanisms currently link SES and mortality (e.g., smoking, exercise, diet and cardiovascular disease). These facts are consistent with the idea that socioeconomic inequalities in health are reproduced via the replacement of intervening mechanisms. To more fully evaluate this component of the theory, however, we needed more direct evidence showing the emergence of new mechanisms; that is, evidence showing that, following the development of new health-related knowledge relating to some disease, the SES-health gradient shifts in favor of high SES individuals, particularly in terms of a health outcome that is related to the emergent knowledge. Just as important is evidence that, in the absence of advances in knowledge, the SES gradient in relevant health outcomes remains fairly steady.

Several such analyses have now been conducted. Phelan and Link (2005) examined selected causes of death for which great strides in prevention or treatment were made over the last half of the twentieth century (heart disease, lung cancer and colon cancer) and causes of death for which much less progress had been made over the same period (brain cancer, ovarian cancer and pancreatic cancer). Looking at age-adjusted death rates by race and by county-level SES, they reported that, for the causes of death where little had been learned about treatment or prevention, mortality rates stayed fairly steady, and the degree of inequality based on race and SES stayed fairly steady as well. By contrast, for the causes of death where gains in treatment and prevention had been significant, overall mortality rates declined while race and SES gradients shifted toward higher mortality for the less advantaged group.

Subsequent studies have gone much further in drawing specific connections between gains in knowledge and subsequent changes in relevant disease outcomes. Carpiano and Kelly (2007) analyzed changes in breast cancer incidence following the widely publicized findings from the Women's Health Initiative (WHI) that linked hormone replacement therapy (HRT) to increased breast cancer risk (Haas et al. 2004). In the following two years, cancer incidence among white women age 50+ dropped precipitously, while incidence among black women in that age group stayed fairly steady. Importantly, the drop in incidence for white women was only dramatic in the 50+ age group, who were most likely to have been using HRT before the study results were publicized and to have stopped using it after the results became known.

Chang and Lauderdale (2009) studied the impact of statins (an effective and expensive medication to lower cholesterol) on socioeconomic gradients in cholesterol levels. Using nationally representative data from 1976–2004, they found that those with higher income initially had higher cholesterol levels, but that the SES-cholesterol association then reversed and became negative in the era of widespread statin use.

Link (2008) traced changes in knowledge, beliefs and behavior that followed the discovery of a causal link between cigarette smoking and lung cancer and that eventually led to strong socioeconomic gradients in smoking. Scientific evidence strongly linking smoking to lung cancer emerged in the early 1950s. To assess changes that may have occurred in the decades following the production of this new knowledge, Link (2008) analyzed multiple public-opinion polls assessing smoking beliefs and behaviors. Evidence from the first surveys conducted just as the scientific evidence was emerging in 1954 showed that, while most people had heard about the findings, only a minority believed that smoking was a cause of lung cancer, and no educational gradient in this belief was evident. Nor was smoking behavior strongly linked to educational attainment in 1954. Over the subsequent 45 years, as people began to adopt the belief that smoking is a cause of lung cancer, sharp educational gradients opened up in this belief. Additionally, people of higher education were less likely to start smoking and more likely to quit, thereby generating a strong SES gradient in smoking behavior (Link 2008). A new and powerful mechanism linking SES to an important health behavior had emerged.

The studies just described are particularly valuable for their ability to pinpoint temporal connections between particular developments in knowledge and technology about specific diseases, on the one hand, and changes in SES-related health gradients predicted by the theory, on the other. Moreover, these studies address major diseases that are important causes of death. However, there is always the possibility that these cases are not representative of the situation that holds more generally when new health knowledge or technology develops. For this reason, the more systematic and comprehensive analysis of Glied and Lleras-Muney (2008) is particularly valuable and provides evidence that the results of the case studies reported above are indeed generalizable. Like Phelan et al. (2004) and Tehranifar et al. (2009), Glied and Lleras-Muney conducted a systematic test based on a comprehensive set of diseases. In fact, Glied and Lleras-Muney repeated their analysis with two separate data sets—the Mortality Detail Files from the National Center for Health Statistics and the Surveillance Epidemiology and End Result cancer registry. They operationalized the development of life-saving knowledge and technology, or “innovation”, in two ways. In the first they used the rate of change in mortality over time to indicate progress in addressing mortality due to particular diseases—the assumption being that the greater the decline in mortality the greater the progress that has been made. In the second, they used the number of active drugs approved to treat particular diseases with the assumption that more progress has been made where more new drugs have been developed to treat disease. They found, consistent with the theory of fundamental causes, that education gradients became larger for diseases where greater innovation had occurred.

In summary, evidence has accumulated that is consistent with each of the four components of fundamental-cause theory. Empirical testing of the theory is accelerating, and studies are now being conducted by researchers other than the theory's originators. This is a desirable development, as it raises confidence that the theory is being subjected to objective scientific scrutiny.

Implications for Health Policy

The fundamental-cause approach leads to very different policies for addressing health inequalities than does an individually oriented risk-factor approach. The latter asks us to locate modifiable risk factors that lie between distal cause (such as SES) and disease, and to intervene in those risk factors. By addressing intervening factors, the logic goes, we will eliminate health disparities.

Our approach points to the pitfalls of this logic and suggests that developing new interventions, even when beneficial to health, is very likely to increase social inequalities in health outcomes. The idea that medical progress often leads to increased health inequality leads to an obvious conundrum: Must we choose between improving overall levels of health and reducing inequalities in health? Some argue that continued inequalities in health outcomes are acceptable as long as overall health improves or that some improvement is achieved for most social groups. We, on the other hand, are committed to reducing health inequalities, but it seems wrongheaded to oppose advances in health knowledge and technology because those may increase inequalities. We see no reason not to make both outcomes a goal, simultaneously pursuing better overall health and reduced inequalities.

We suggest some general strategies that we believe will lead to improved overall population health without further widening social inequalities in health. Our approach points to policies that encourage advances while breaking or weakening the link between these advances and socioeconomic resources, either by reducing disparities in socioeconomic resources themselves, or by developing interventions that, by their nature, are more equally distributed across SES groups.

Reduce Resource Inequalities

The first recommendation falls outside the explicit domain of health policy, but according to fundamental-cause theory, is intimately tied to it. The theory stipulates that people use their knowledge, money, power, prestige, and social connections to gain a health advantage, and thereby reproduce the SES gradient in health. The most direct policy implication of the theory is that, if we redistribute resources in the population so as to reduce the degree of resource inequality, inequalities in health should also decrease. Policies relevant to fundamental causes of disease form a major part of the national agenda, whether this involves the minimum wage, housing for homeless and low-income people, capital-gains and estate taxes, parenting leave, social security, head-start programs and college-admission policies, regulation of lending practices, or other initiatives of this type. We argue that all these policies are health-relevant policies and that understanding how they are should be claimed as an essential part of the domain of medical sociology.

Contextualize Risk Factors

Potential interventions that seek to change individual risk profiles should first analyze factors that put people at risk of risks, for example, power disadvantages that prevent some people from adopting safe sex or neighborhood environments that make healthful foods unavailable. This will avoid the enactment of interventions aimed at changing behaviors that are powerfully influenced by factors left untouched by the intervention.

Prioritize the Development of Interventions that do not Entail the Use of Resources or that Minimize the Relevance of Resources

As we seek to create interventions to improve health, we need to ask if an intervention is something that anyone can potentially adopt, or whether the benefit will only be available to people with the requisite resources. Fundamental-cause theory suggests that health inequalities based on SES can be reduced by instituting health interventions that automatically benefit individuals irrespective of their own resources or behaviors. Examples are the manufacture of automobiles with air bags rather than seat belts; providing health screenings in schools, workplaces, and other community settings rather than through private physicians; requiring window guards in all high-rise apartments rather than advising parents to watch their children carefully; thoroughly inspecting meat rather than advising consumers to wash cutting boards and cook meat thoroughly; requiring landlords to keep homes free of lead paint hazards rather than warning parents to protect their toddlers from chipped paint. In some cases, such as this last example, existing risks will be greater in low-income neighborhoods and contexts, and special enforcement of these policies may be required in those contexts. In each example, the former solution does not give an advantage to those with greater resources, because individual resources are unrelated and irrelevant to benefiting from the intervention.

However, even if we become far more creative in developing contextually based interventions that blanket an entire population with health benefit, addressing many health problems will still require individual resources and action. In these cases, resource-rich persons are likely to fare better. Even in these cases, however, we can influence the trajectory of inequalities by attending to the type of interventions we adopt. When we create interventions that are expensive, complicated and time-consuming to carry out, and difficult to distribute broadly, we are likely to create health disparities (Chang and Lauderdale 2009). Conversely, to the extent that we develop interventions that are relatively affordable and easy to disseminate and use, we should be able to reduce the degree to which new interventions give advantage to high SES persons. Goldman and Lakdawalla (2005) analyzed two case studies supporting the idea that the introduction of difficult-to-implement treatments (in their analysis, Highly active antiretroviral therapy (HAART) treatment for HIV/AIDS) lead to increased SES inequalities in health outcomes, whereas treatments that are simpler and require less effort (in their analysis, beta-blockers to reduce hypertension) reduce such inequalities. As Chang and Lauderdale (2009) suggest, this principle should also apply to cost: new interventions that are less expensive should result in smaller SES-based health inequalities than those that are more expensive. Chang and Lauderdale (2009 p. 257) also point out, importantly, that "technologies that have the potential to contract disparities will not do so unless they also diffuse broadly". We add that a necessary ingredient of successful diffusion will be broadly disseminated and clearly stated information about how an intervention can help one's health, where that intervention is available, whether and how much of it is covered by health insurance plans and, if not, how much it will cost.

Fundamental Causality as a Theory of the Middle Range

Despite the ambitious name that Link and Phelan affixed to the theory (for reasons indicated above), fundamental-cause theory is decidedly a theory of the middle range. In explicating his concept of middle-range theory Merton (1957 p. 5) proposed the need for theories "intermediate to the minor working hypotheses evolved in abundance during the day-by-day routine of research, and the all inclusive speculations comprising a master conceptual scheme." For Merton, the day-to-day hypotheses fell short in their ability to produce robust synthetic explanations whereas grand theories were too speculative and too far removed from the possibility of empirical testing to be useful. Fundamental-cause theory is a middle-range theory in that it resides above day-to-day hypotheses such as: Is SES causally related to disease x, to disease y or to disease z?; or is SES linked to disease x through risk factor a, b, or c? Instead, fundamental-cause theory provides an explanation for why SES might be related to many diseases and why such an association might be reproduced in multiple contexts and at different times. At the same time, fundamental cause theory resides below 'grand theory' in that it identifies a relatively specific phenomenon it seeks to explain—connections between health and social factors like SES and discrimination. Further unlike the prototype of grand theory that Merton describes, fundamental-cause theory generates empirical predictions that can yield evidence bearing on the theory's utility. Some empirical tests have been carried out, others are in process, and still others await imaginative formulation of new strategies for evaluating the theory.

Implicit in the idea that fundamental-cause theory is a theory of the middle range is that it must join with other theories to account for the social distribution of health and illness. Within medical sociology, other middle-range theories that need to be engaged are social-stress theory, theory concerning health lifestyles, and an emerging sociological theory of health selection among others. In some instances empirical facts make this apparent as is true with the social patterning of morbidity and mortality by gender and immigration status. Men and people born in the United States are generally thought to have the advantage of high status when compared to women and immigrant populations. With respect to gender, while it is true that women report worse health in a manner consistent with fundamental-social-cause theory they also enjoy a robust longevity advantage over men in a way that fundamental-cause theory, at least as elaborated so far, does not explain. Similarly some immigrant groups enjoy better health than native born Americans—at least in the early years of their tenure in the United States. Again this is a fact that fundamental-cause theory, as it has been formulated, so far does not explain. At the same time within these categorical divisions (gender and immigration status) SES gradients in health outcomes are usually evident suggesting the possibility that fundamental-social-causes processes are at work but need to join with other theories to achieve a more complete accounting of the full pattern of health outcomes.

At the same time there exists substantial evidence to indicate that other middle-range theories in medical sociology need to embrace fundamental-cause theory to account for some empirical findings that have not been adequately explained by those theories. Much of the evidence for fundamental-cause theory is presented above, but two sets of facts speak to the necessity of the perspective, because these facts are consistent with fundamental-cause theory but have not been explained by other middle-range theories in medical sociology. One such fact is the emergence of health inequalities by race and SES over the 50 years or so in major killers such as heart disease, lung cancer and colon cancer, where significant progress has been made in knowledge and technology relevant to the prevention or cure of these conditions. Whereas at one time death rates from these diseases tended to be higher in advantaged groups, they are now higher in disadvantaged groups. The second such fact is a relatively stable set of differences between advantaged and disadvantaged groups in age-adjusted mortality rates for diseases like brain, ovarian, and pancreatic cancer where little knowledge or technology relevant to prevention or cure has developed. This set of facts is consistent with fundamental-cause theory but is difficult to explain from the vantage point of stress theory or a theory of health selection as neither predicts these changes in patterns of mortality over time.

Conclusion

We have sought to explicate the theory of fundamental social causes of health inequalities as it has developed over the past 17 years. Over that time, the theory has been elaborated and some tests have been developed and implemented. At the current time, we see the theory as a theory of the middle range that helps us understand the social pattern of disease and death from a distinctly sociological vantage point.

References

Antonovsky, A. (1967). Social class, life expectancy, and overall mortality. *Milbank Memorial Quarterly, 45*, 31–73.

Black, D., Morris, J. N., Smith, C., & Townsend, P. (1982). *Inequalities in health: The black report*. Middlesex: Penguin.

Blackmon, D. A. (2008). *Slavery by another name*. New York: Anchor Books.

Bourdieu, P. (1984). *Distinction: A social critique of the judgment of taste*. Cambridge: Harvard University Press.

Carpiano, R. M., & Brian, C. K. (2007). *Scientific knowledge as resource and risk: What does hormone replacement tell us about health disparities*. Paper presented at the American Sociological Association meetings, August 2007, New York.

Chang, V. W., & Lauderdale, D. S. (2009). Fundamental cause theory, technological innovation, and health disparities: The case of cholesterol in the era of statins. *Journal of Health and Social Behavior, 50*, 245–260.

Clouston, S. A. P., Rubin, M. S., Phelan, J. C., & Link, B. G. (2011). *An unnatural history: Contextualizing the rise and fall of the social inequality in mortality*. Presented at the annual meetings of the American Sociological Association, August, Las Vegas

Cockerham, W. (2005). Health lifestyle theory and the convergence of agency and structure. *Journal of Health and Social Behavior, 46*, 51–67.

Colgrove, J. (2006). The ethics and politics of compulsory HPV vaccination. *New England Journal of Medicine, 355*, 2389–2391.

Dahl, E., Hofoss, D., & Elstad, J. I. (2007). Educational inequalities in avoidable deaths in Norway: A population based study. *Health Sociology Review, 16*, 146–159.

Dutton, D. H. (1978). Explaining the low use of health services by the poor: Costs, attitude, or delivery systems. *American Sociological Review, 43*, 348–368.

Freese, J., & Lutfey, K. (2010). Fundamental causality: Challenges of an animating concept for medical sociology. In B. A. Pescosolido, J. K. Martin, J. McLeod, & A. Rogers (Eds.), *The handbook of the sociology of health, illness, and healing* (pp. 67–83). New York: Springer.

Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61–89). Orlando: Academic.

Glied, S., & Lleras-Muney, A. (2008). Technological innovation and inequality in health. *Demography, 45*, 741–761.

Goldman, D. P., & Lakdawalla, D. N. (2005). A theory of health disparities and medical technology. *Contributions to Economic Analysis and Policy, 4*, 1–30.

Haas, J. S., Kaplan, C. P., Gerstenberger, E. P., & Kerlikowske, K. (2004). Changes in the use of postmenopausal hormone therapy after the publication of clinical trial results. *Annals of Internal Medicine, 140*, 184–188.

House, J. S., Kessler, R. C., Herzog, A. R., Mero, R. P., Kinney, A. M., & Breslow, M. J. (1990). Age, socioeconomic status, and health. *The Milbank Quarterly, 68*, 383–411.

House, J. S., Lepkowski, J. M., Kinney, A. M., Mero, R. P., Kessler, R. C., & Herzog, A. R. (1994). The social stratification of aging and health. *Journal of Health and Social Behavior, 35*, 213–234.

House, J. S., & Williams, D. R. (2000). Understanding and reducing socioeconomic and racial/ethnic disparities in health. In B. D. Smedley & S. Leonard Syme (Eds.), *Promoting health: Intervention strategies from social and behavioral research* (pp. 81–124). Washington: National Academy Press.

Illsley, R., & Mullen, K. (1985). The health needs of disadvantaged client groups. In W. W. Holland, R. Detels, & G. Know (Eds.), *Oxford textbook of public health* (pp. 389–402). Oxford: Oxford University Press.

Kunst, A. E., Feikje, G., & Mackenbach, J. P. (1998). EU Working Group on Socioeconomic Inequalities in Health. 1998. Occupational class and cause specific mortality in middle aged men in 11 European countries: Comparison of population based studies. *British Medical Journal, 316*, 636–642.

Lantz, P. M., House, J. S., Lepkowski, J. M., Williams, D. R., Mero, R. P., & Chen, J. (1998). Results from a nationally representative prospective study of US adults. *Journal of the American Medical Association, 279*, 1703–1708.

Lieberson, S. (1985). *Making it count: the improvement of social research and theory*. Berkeley: University of California Press.

Link, B. G. (2008). Epidemiological sociology and the social shaping of population health. *Journal of Health and Social Behavior, 49*, 367–384.

Link, B. G., Northridge, M., Phelan, J., & Ganz, M. (1998). Social epidemiology and the fundamental cause concept: On the structuring of effective cancer screens by socioeconomic status. *Milbank Memorial Quarterly, 76*, 375–402.

Link, B. G., & Phelan, J. C. (1995). Social conditions as fundamental causes of disease. *Journal of Health and Social Behavior* (extra issue), 80–94.

Link, B. G., & Phelan, J. C. (2010). Social conditions as fundamental causes of health inequalities. In C. Bird, P. Conrad, A. Fremont, & S. Timmermans (Eds.), *Handbook of medical sociology* (6th ed., pp. 3–17). Nashville: Vanderbilt University Press.

Lutfey, K., & Freese, J. (2005). Toward some fundamentals of fundamental causality: Socioeconomic status and health in the routine clinic visit for diabetes. *American Journal of Sociology, 110*, 1326–1372.

Marshall, S. W., Kawachi, I., Pearce, N., & Borman, B. (1993). Social class differences in mortality from diseases amenable to medical intervention in New Zealand. *International Journal of Epidemiology, 22*, 255–261.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370–396.

Max-Neef, M., Elizalde, A., & Hopenhayn, M. (1989). Human scale development: An option for the future. *Development Dialogue: A Journal of International Development Cooperation, 1*, 7–80.

Merton, R. K. (1957). *Social theory and social structure*. New York: Free Press.

National Center for Health Statistics. (2008). *Health United States 2008: With Chartbook on Trends in the Health of Americans.* Hyattsville.

Pamuk, E. R., Makuc, D., Heck, K., Reuben, C., & Lochner, K. (1998). *Socioeconomic status and health chart book: health, United States, 1998*. Hyattsville: National Center for Health Statistics.

Phelan, J. C., & Link, B. G. (2005). Controlling disease and creating disparities: A fundamental cause perspective. *The Journals of Gerontology, 60B*, 27–33.

Phelan, J. C., Link, B. G., Diez-Roux, A., Kawachi, I., & Levin, B. (2004). Fundamental causes of social inequalities in mortality: A test of the theory. *Journal of Health and Social Behavior, 45*, 265–285.

Phelan, J. C., Link, B. G., & Tehranifar, P. (2010). Social conditions as fundamental causes of health inequalities: Theory, evidence, and policy implications. *Journal of Health and Social Behavior, 51*, S28–S40.

Rosen, G. (1979). The evolution of social medicine. In H. Freeman, S. Levine, & L. Reeder (Eds.), *The handbook of medical sociology* (3rd ed., pp. 23–50). Englewood Cliffs: Prentice Hall.

Ruberman, W., Weinblatt, E., Goldberg, J. D., & Chaudhary, B. S. (1984). Psychological influences on mortality after myocardial infarction. *New England Journal of Medicine, 311*, 552–559.

Rubin, M. S. (2011). *The Emergence of Disparities in Mortality in the United States: A focus on prevention and treatment of disease*. Unpublished Dissertation, Department of Sociomedical Sciences. New York: Mailman School of Public Health, Columbia University.

Song, Y. -M., & Byeon, J. J. (2000). Excess mortality from avoidable and non-avoidable causes in men of low socioeconomic status: A prospective study in Korea. *Journal of Epidemiology and Community Health, 54*, 166–172.

Sorlie, P., Backlund, M., & Keller, J. (1995). U.S. mortality by economic, demographic, and social characteristics: The national longitudinal mortality study. *American Journal of Public Health, 85*, 949–956.

Tehranifar, P., Neugut, A. I., Phelan, J. C., Link, B. G., Liao, Y., Desai, M., et al. (2009). Medical advances and racial/ethnic disparities in cancer survival. *Cancer Epidemiology, Biomarkers and Prevention, 18*, 2701–2708.

Turner, R. J., Wheaton, B., & Lloyd, D. A. (1995). The epidemiology of social stress. *American Sociological Review, 60*, 104–125.

Williams, D. R., & Collins, C. (2001). Racial residential segregation: A fundamental cause of racial disparities in health. *Public Health Reports, 116*, 404–416.

Chapter 7
Bourdieu and an Update of Health Lifestyle Theory

William C. Cockerham

The purpose of this chapter is to update health lifestyle theory and in the process illustrate the importance of Pierre Bourdieu's contributions to sociological research on this topic. Bourdieu never published work on health or medical sociology, yet many of his ideas, especially his concepts of habitus and various forms of capital (e.g., social, cultural), are increasingly utilized to provide theoretical models in health-related research (see, for example, Abel and Frohlich 2011; Carpiano 2006; Christensen 2011; Cockerham 2005, 2010, 2013; Williams 1995). The merit of his perspective is that it fully (perhaps overly in some instances) acknowledges the important role structure has in shaping and often determining human social behavior, including lifestyles. This return to a more structurally-aware approach comes decades after the demise of structural-functionalism and the ascendancy of agency-oriented theories in health sociology and sociology generally (Cockerham 2013; Mouzelis 2008; Smelser 1997).

Health Lifestyles: The Agency-Structure Debate

I found the agency-structure debate to be of major importance in developing a theory of health lifestyles (Cockerham 2005). This is because the relative contributions of agency and structure in influencing social behavior have been *the* central sociological question since the beginning of the discipline. The task of understanding the linkage between the two phenomena will always retain this centrality because it is the basis upon which society and social interaction is constructed (Archer 1995:1). However, health sociologists have paid little attention to the agency-structure debate, although it is clearly relevant to theoretical

W. C. Cockerham (✉)
Department of Sociology, University of Alabama at Birmingham, 1401 University Blvd,
Birmingham 35294-1152, Alabama, USA
e-mail: wcocker@uab.edu

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_7,

discussions on a number of topics (Pescosolido et al. 2000; Williams 1995). When applied to health lifestyles, the question becomes: Are the decisions people make with respect to food, exercise, smoking, and the like largely a matter of individual choice or are they principally molded by structural variables such as social class position and gender?

One might think that lifestyle practices are simply a matter of individual choice. That is, a person either chooses to do healthy things as a lifestyle or not, and this is basically the whole story. On the surface, such a decision appears to be largely a matter of free will. But is this really the case? Are health and other lifestyles constructed by individuals without any specific reference to the social structures in their lives? If this is true, then why do lifestyles tend to cluster in particular patterns reflecting distinct differences by class, age, gender and other structural variables? Therefore, it may be that health lifestyles are shaped from the top down by structural influences that people adopt as their own. In this scenario, structure channels health and other lifestyle practices down particular pathways instead of others that could be chosen. People would still have the option to choose, but generally do so along class lines and in accordance with other structural influences that might be relevant.

Consequently, in formulating any sociological theory of health lifestyles, a theorist needs to contend with the issues surrounding the relative contributions of agency and structure to their model. Agency can be defined as the process by which individuals recall their past, imagine their future actions, critically evaluate their present circumstances, and choose their behavior based upon their assessment of a situation (Emirbayer and Mische 1998). Theories that favor agency depict individuals as having the capacity to ultimately choose or self-direct their course of action regardless of structural constraints and influences. This capacity for self-direction underlies the operation of all forms of agency and demonstrates a fundamental freedom that people have to choose their actions (Hitlin and Elder 2007). Symbolic interaction theory describes this very process when it discusses people constructing their social behavior on the basis of their definitions and interpretations of the situations they find themselves in (Blumer 1969).

Structure, on the other hand, is defined by William Sewell (1992: 19) as sets of mutually sustaining rules and procedures to the enactment of social life, along with resources, that empower or constrain social action and tend to be reproduced by that action when it occurs. Resources are of two types, either human (e.g., physical strength, dexterity, knowledge) or nonhuman (naturally occurring or manufactured) that can used to enhance or maintain power. Sewell equates resources with the power to influence action positively or negatively as suggested by Anthony Giddens' (1984) notion of the duality of structure as both constraining and enabling. The enabling function suggests resources increase the range and style of options from which the actor can choose, but constraint means that resources also invariably limit choices to what is possible.

Following the demise of structural-functionalism in the 1960s, agency-oriented theories moved over time to take a leading role in theorizing in sociology in the United States and United Kingdom. The theoretical tilt toward agency was in the direction of what Margaret Archer (1995) refers to as "upwards conflation."

Conflation is a term in social theory that represents one-dimensional theorizing. Upwards conflation describes theories depicting individuals interacting with one another and in doing so creating social structures in a one-way, upwards path, leaving those structures incapable of acting back on individuals. Causal power in this context thus resides in the individual acting in concert with similar others to create society and the structures within it. Carried to its extreme, agency theorizing reduces social phenomena to the level of the individual (Hitlin and Elder 2007).

This is not to say that agency-oriented theories omit considerations of structure as symbolic interaction has its notion of the "generalized other," social constructionism contains elements of Michel Foucault's post-structuralism, Giddens' structuration theory recognizes the "duality of structure" as both constraining and enabling, and Archer's critical realism considers the effects of structural conditioning. Nevertheless, they all share the premise that agency ultimately determines social behavior. While no contemporary theory denies that either agency or structure is unimportant, theoretical debate about their differences center on the extent to which one or the other is dominant. Archer (2003) argues for example, that the capability of structure to constrain or enable individuals is contingent upon individuals exercising agency by choosing the situations in which they have an impact. Therefore, agency, in her view, is more decisive in determining behavior than structure.

While agency theorists maintain that agency will never be completely determined by structure, it is likewise clear that "there is no hypothetical moment in which agency actually gets 'free' of structure; it is not, in other words, some pure Kantian transcendental free will" (Emirbayer and Mische 1998: 1004). Structure is therefore present in every social context in which agency is exercised. This is because, as Zygmunt Bauman (1999) observes, individual choices in *all* circumstances are confined by two sets of constraints: (1) choosing from among what is available and (2) social roles or codes telling the individual the rank order and appropriateness of preferences. Therefore, as Steven Hitlin and Glen Elder (2007: 177) point out, while humans may be able to control many of their actions, this capacity gets socially channeled in particular directions. People do have the capability to act independently of the social structures in their lives, but the occasions on which they actually do so appear to be rare.

For example, structural influences on health lifestyles are seen in the studies in Canada on alcohol use by married women and university students in which social situations determined how much people drank (Demers et al 1999; Demers et al. 2002). Individuals were not autonomous actors making self-governing decisions; rather, the drinking situation itself influenced levels of consumption (Demers et al. 2002: 422). In the U.S., banning smoking in public places was a more effective approach to smoking cessation than individuals being targeted through educational programs (Sweat and Denison 1995: S252). This ban had the effect of labeling smokers as social outcasts, deviants, and threats to the health of others in their vicinity. Anti-smoking laws, social isolation, and stigma significantly decreased smoking "far beyond the results of purely individualistic approaches" (Sweat and Denison 1995: S252).

In England, Martine Stead and her colleagues (2011) found that the social and symbolic meanings associated with certain foods prevented young teenagers from eating healthy lunches at school. High status ("cool") teens ate quality chocolate bars and crisps (potato chips) for lunch and drank Coca Cola or Pepsi. Teens that ate healthy or inexpensive foods were ridiculed and categorized as "nerds" or "uncool". Bananas and yoghurt were especially taboo. Thus, social status dictated lunchtime food choices for teens who wanted to be popular and accepted by their peers. Healthy eating symbolized something undesirable and exposes them to social risks. While this may seem irrational to public health experts, Stead and her associates argue that unhealthy eating can be viewed by the teenagers as profoundly rational since it avoided the risk of an impaired social identity and rejection by peers. In this circumstance, eating unhealthily could actually be positive for a teen's social and emotional well-being, even though nutritionally harmful.

Whereas these studies show structural influences have a significant effect on health lifestyles, I also found an example where structure can be so overwhelming that agency is literally rendered inert. This is seen in research by Gareth Williams (2003) reporting on high mortality among a group of Welsh coal miners in the 1930s whose work was punishing and diets meager. However, the incessant toll of childbirth and domestic labor impaired the health and shortened the lives of the women as much or more than that of the men. The structural conditions under which they lived their daily lives were so heavy that individual capabilities and capacities were ineffective. This situation, comments Williams (2003: 146), "provides a salutary reminder of the way in which the balance between agency, context, and structure is itself highly determined by structural forces."

Although this account might be dismissed as outdated and one would hope it no longer exists, Williams nevertheless noted that the influence of structure on agency in relation to health lifestyles can still be heavy-handed in a study investigating contemporary social conditions in a working-class neighborhood in a British city. He finds that assuming people have the freedom to make healthy choices is not consistent with what many of them experience as real possibilities in their everyday lives. They understood the behavioral risk factors that made poor health more likely and for which they could be personally responsible, but they were also aware that the health risks they faced were part of social conditions that they could do little to change (Williams 2003: 147).

Therefore, while agency is important, it seems social structural conditions can act back on individuals and configure their lifestyle patterns in particular ways. Agency allows them to reject or modify these patterns, but structure limits the options that are available. This is not to say that considerations of agency should be minimized, but agency is not the whole story. In many situations it is not dominant and can even be limited. Structure invariably has a role in lifestyle decisions and I argue that it is usually the interaction between agency and structure that is decisive (Cockerham 2005, 2010, 2013). That is, I see health lifestyles resulting from a dialectic exchange between agency and structure in which structure's constraints and enablements operate in tandem with agency to determine practices.

Health Lifestyles: The Need for a Theory

Early health sociology tended to focus on social and social psychological factors having a role in illness and medical care; the health-oriented behavior of people who were not sick were not a topic of investigation. However, the study of health lifestyles has become important in its own right and before proceeding to a discussion of health lifestyle theory, we should first consider the need for such it. Social factors not only cause disease, but they also cause health and one of the primary mechanisms by which health is socially manufactured or undermined is through lifestyles (Cockerham 2005, 2010, 2013). Everyone has a lifestyle that is practiced on a daily basis and to ignore such a fundamental form of behavior undercuts our ability to fully account for social conduct (Giddens 1991). Although health sociology neglected the study of lifestyle constellations that were relevant for health for many years, this situation has changed with the realization that such lifestyles are indeed a regular part of everyday living and have a major role in health outcomes. In past periods of history, when life expectancy was shorter, a person's health was more or less taken for granted; that is, an individual was either naturally healthy or unhealthy and that was simply the way life had turned out for the person.

This situation is now different with a majority of people expecting to live to advanced ages and in the process becoming more susceptible to chronic diseases associated with lifestyles. Chronic diseases—such as heart disease, cancer, stroke, and diabetes—cannot be cured by medical treatment and certain lifestyle practices, such as smoking, alcohol and drug abuse, eating high-fat foods, and unprotected sex in the case of sexually-transmitted diseases, can cause these afflictions and end life prematurely. Modernity now brings the requirement to actively work to stay healthy in order to avoid these problems and prolong life spans. However, while some people are protective of their physical well-being, others, either in ignorance or purposively, practice bad health habits that are self-destructive.

Consequently, health today has become viewed as an achievement—something that people are supposed to work at to enhance their quality of life or risk chronic illness and premature death if they do not (Clarke et al. 2003). As Giddens (1991) and Bryan Turner (1992) conclude, lifestyle options have now become integrated with bodily regimens or routines aimed at maintenance. People in advanced societies are normatively assigned greater personal responsibility for their health and even the design of their own bodies along socially acceptable lines.

The epidemiological transition in the 20th century from acute to chronic illnesses was not the only development promoting the role of health lifestyles in daily life and the need for a theory. Another reason is the late modern decline in the status and professional authority of physicians through lessened control over the medical marketplace, health care decisions requiring the permission of insurers, and greater movement toward the mutual participation model of the physician-patient relationship in which the patient shares in decision-making about his or her medical care. This circumstance has accelerated with the advent of Internet medicine and the wide diffusion of medical knowledge in the public domain (Drentea and Moren-Cross 2005; Fox et al. 2005). Adopting a healthy lifestyle accords people some personal control over their health as a preventive measure.

Additionally, as Giddens (1991) points out, lifestyles not only fulfill practical ends, but also express a person's self-identity. Giddens therefore defines a lifestyle as a more or less integrated set of practices which an individual embraces, not only because such practices satisfy utilitarian needs, but because they give material form to a particular narrative of self-identity. What people consume in their lifestyle practices reflects their social status as different groups have different patterns of consumption (Bourdieu 1984; Crompton 2008; Stead et al. 2011). Knowing a person's lifestyle explains a great deal about the person.

Health Lifestyles: The Foundation

As noted, sociologists have been slow to recognize the effects of lifestyles on behavior and ultimately on health. One reason may have been the influence of Thorstein Veblen's ([1899] 1994) classic, the *Theory of the Leisure Class*, that affixed the term "lifestyle" to modes of leisure adopted by the upper class. The term "lifestyle" became synonymous with upper class styles of living and what many considered trivial forms of consumerism by the affluent. Only the wealthy had the time and the money to have a "style" to their lives. As we now know, it was a major mistake to suppose that lifestyles are confined to those in more privileged material circumstances. Everybody has a lifestyle, even the poorest of the poor (Giddens 1991).

Weber

Max Weber ([1922] 1978) provides the deepest insight into the lifestyle concept among the classical theorists and, in doing so, made three lasting contributions. First, he associated lifestyles with status groups, noting that people in such groups shared a similar lifestyle distinct from other groups. To be a member of a group and share its status, a person was expected to adopt its style of life. Even though an individual may have a "lifestyle," lifestyles themselves are a collective phenomenon, reflecting patterns of living characteristic of particular groups and especially social classes. Although Weber's methodologies often reflected an individualist and agency-oriented "bottom-up" approach to the study of social structure, he did not view patterns of social action as the uncoordinated practices of disconnected individuals (Kalberg 1994). Instead, he saw such action in terms of regularities and uniformities repeated by numerous actors over time that formed general patterns of behavior. His focus was on the way in which people act in concert, not individually.

The bridge from agency to structure for Weber was his use of "ideal types," consisting of structural entities like his concept of bureaucracy or macro-level processes like the spread of formal rationality in Western society whose construction allowed him to make general statements about collective forms of social behavior (Kalberg 1994). For example, in *The Protestant Ethic and the Spirit of Capitalism* (1958), Weber emphasized structure in an essentially "top-down" fashion by showing how social institutions (Calvinist religion) and widespread belief systems (the spirit of capitalism) were powerful forces in shaping the thoughts and behavior of individuals (Sibeon 2004). In order for a manner of life to emerge that could adapt to the peculiarities of capitalism and come to dominate others, Weber (1958: 55) finds "that it had to originate somewhere, and not in isolated individuals alone, but as a way of life common to whole groups of men."

Second, Weber pointed out that lifestyles were based not on what people produced, but what they consumed. Consumption is not independent of production. As George Ritzer (Ritzer and Yagatich 2012), argues, the distinction between production and consumption is false in that all acts invariably involve both processes In order to consume something, it has to be first produced and the process of production often requires the consumption of something. In the case of health lifestyles, consumption seems to hold sway over production. Even though it can argued that positive health lifestyles are intended to produce good health, ultimately that health is intended to be used or consumed over time. Therefore, lifestyle differences between groups are primarily based on their relationship to the means of consumption in a society. Moreover, while economic modes of production set the parameters within which styles of consumption occur, it does not determine specific forms of it. This is because the consumption of goods and services conveys a *social* meaning that displays the status and social identity of the consumer. Consumption can therefore be regarded as a set of social and cultural practices that *establish* differences between groups, not merely a means of expressing differences that are in place because of economic factors (Bocock 1993; Bourdieu 1984).

And third, Weber's most important contribution to conceptualizing lifestyles in sociological terms is to impose a dialectical capstone over the interplay of choices and chances (Cockerham et al. 1997). What Weber calls "life chances" is defined by Ralf Dahrendorf (1979: 73) as the probability of finding satisfaction for one's needs, desires, and interests that is anchored in structural conditions. Life chances are therefore a proxy for structure and life choices represent agency. Choices and chances work off each other in tandem to determine a lifestyle. People have needs, wants, and social identities that they match up with their chances in life and select a lifestyle supported by and realistic for their social position. Despite the powerful influence of structure, Weber accords choice the greater role.

What Weber provides us that is central to formulating a contemporary theory of health lifestyles is that: (1) such lifestyles are collective, health-related practices characteristic of particular groups and classes; (2) while they produce health, the aim of this activity is ultimately one of consumption as people use their health for some end, such as work, a longer life, increased vitality, enhanced enjoyment of their physical body, or a good physical appearance; and (3) that the interplay of agency and structure establish and shape the practices that comprise their expression and form.

Giddens

Another contribution to health lifestyle theory comes from Giddens (1991) who describes how late modernity influences contemporary lifestyles by undercutting traditional practices and promoting a diversity of choices. Global transformations of our sense of time, space, and distance, combined with certain disembedding factors (like increasingly sophisticated and abstract money systems, the widespread availability of rapid communications, and the penetration of technical knowledge throughout society), advance constant change. In these circumstances, people are likely to be pushed by social situations into choosing a particular lifestyle that connects their options to a more or less ordered pattern that provides consistency for their self-identity in a time of ongoing change.

Giddens also maintains that even persons in the lowest social classes have some choice because no culture, in his view, eliminates choice altogether in day-to-day affairs and the poor have distinctive cultural styles and activities that require choices, such as trying to survive conditions of poverty. While he does not overlook the influence of external sources on the lifestyles of individuals generally, he favors agency over structure in lifestyle selection because of the role of choice in the construction of self- identity. Nevertheless, Giddens (1984) does contribute to our understanding of structure with his notion of the duality of structure, namely that structures are both constraining and enabling at the same time. That is, structures set limits on what people can choose, but they also provide resources (e.g., status, class position, finances) that can help them realize their choices. This constraining and enabling function guides people into lifestyles that are realistic for them.

What we primarily gain from Giddens in developing a theory of health lifestyles is recognition of (1) late modernity's role in fostering a diversity of lifestyle choices, (2) the necessity of having to choose (3) the tendency of choices to cluster in particular patterns (4) the role of lifestyles in reflecting the self-identity of the individual, and (5) the dual function of structure as a constraint or enabler of choices.

Bourdieu

Unlike Weber and Giddens, Bourdieu shows a clear preference for structure over agency as seen in his strong emphasis upon the effects of class hierarchies on behavior. The seminal study detailing class as the most decisive variable in the determination of health lifestyles is Bourdieu's book *Distinction* (1984). Based on a survey of French professionals (upper-middle class) and working class respondents that included sports preferences and eating habits, Bourdieu found the working class to be more attentive to maintaining the strength of the male body than its shape, and to favor food that is cheap, nutritious, and abundant. In contrast, the professional class prefers food that is tasty, healthy, light, and low in calories. As for leisure sports such as sailing, skiing, golf, tennis, and horseback riding, he found a stratified system and noted that the working class not only faces economic barriers, but also social barriers in the form of hidden entry requirements of family tradition, obligatory dress and behavior, and early socialization. Additionally, these sports were usually practiced in exclusive locations with chosen partners and required investments of money, time, and training that the working class lacks. The working class, in contrast, opts for sports that are popular with the general public and accessible to all classes. These are sports like soccer, wrestling, and boxing that feature strength, endurance, and violence.

Consequently, Bourdieu formulated the notion of "distance from necessity" that emerges as a key explanation of class differences in lifestyles. He points out that the more distant a person is from having to acquire economic necessity, the greater the freedom and time that person has to develop and refine personal tastes in line with a more privileged class status. Lower social strata, in turn, tend to adopt the tastes consistent with their class position, in which obtaining items of necessity (such as inexpensive foods and housing) is paramount. For example, Bourdieu (1984: 177) observes that as one rises in class position, the proportion of income spent on food diminishes, and that within the food budget, the proportion spent on heavy, fattening foods, which are also cheap—pasta, potatoes, bacon, and pork—declines, whereas an increasing proportion is spent on leaner, lighter, non-fattening foods and especially fresh fruits and vegetables.

Bourdieu finds that social classes not dominated by the ordinary interests and urgencies of making a daily living claim superiority in social and cultural tastes over those who have only fundamental levels of material well-being. Cultivating a taste in good wines typically signifies higher status, or, if beer is the preferred drink, then foreign or craft-brewed beers are likely to be favored over cheap domestic brands. "As the objective distance from necessity grows," states Bourdieu (1984: 55), "life-style increasingly becomes the product of what Weber calls a 'stylization of life', a systematic commitment which orients and organizes the most diverse practices—the choice of a vintage or a cheese or the decoration of a holiday home in the country." The greater the social distance from struggling to obtain necessity, the greater the refinement of lifestyle practices. The relevance of the distance from necessity concept is seen in health lifestyles where classes higher on the social scale have the time and resources to adopt the healthiest practices.

The most important of Bourdieu's theorizing with respect to lifestyles is his use of habitus. The contemporary notion of habitus originates with Edmund Husserl ([1952] 1989: 266–93) who used the term to describe *habitual action* that is intuitively followed and anticipated. The concept has been expanded by Bourdieu (1977: 72–95) to serve as his core explanation for the agency-structure relationship in lifestyle dispositions (Bourdieu 1984: 169–225). Bourdieu (1990: 53) defines habitus as "systems of durable, transposable dispositions, structured structures predisposed to operate as structuring structures, that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them." Put another way, the habitus serves as a cognitive map or set of perceptions that routinely guides and evaluates a person's choices and options. It provides enduring dispositions toward acting deemed appropriate by a person in particular social situations and settings. Included are dispositions that can be carried out even without giving them a great deal of thought in advance. They are simply habitual ways of acting when performing routine tasks.

The influence of exterior social structures and conditions are incorporated into the habitus, as well as the individual's own inclinations, preferences, and interpretations. The dispositions that result not only reflect established normative patterns of social behavior, but they also encompass action that is habitual and even intuitive. Through selective perception the habitus molds aspirations and expectations into what Bourdieu calls "categories of the probable" that impose perceptual boundaries on dispositions and the potential for action. "As an acquired system of generative schemes," observes Bourdieu (1990: 55), "the *habitus* makes possible the free production of all the thoughts, perceptions, actions, inherent in the particular conditions of its production—and only those." Thus the habitus has perceptual boundaries. One can only know what one knows and act accordingly.

When Bourdieu speaks of the internalization of class conditions and their transformation into personal dispositions toward action, he is describing conditions similar to Weber's concept of life chances that determine materially, socially, and culturally what is probable, possible, or impossible for a member of a particular social class or group (Swartz 1997: 104). Individuals who internalize similar life chances share the same habitus because, as Bourdieu (1977: 85) explains, they are more likely to have similar shared experiences: "Though it is impossible for *all* members of the same class (or even two of them) to have the same experiences, in the same order, it is certain that each member of the same class is more likely than any member of another class to have been confronted with the situations most frequent for members of that class." As a result, there is a high degree of affinity in lifestyle choices among members of the same class. Bourdieu maintains that while they may depart from class standards, personal styles are never more than a deviation from a style of a class that relates back to the common style by its difference.

Even though Bourdieu allows agency some autonomy (e.g., agents are determined only to the extent they determine themselves), his emphasis on structure with respect to routine operations of the habitus clearly delineates a far lesser role for agency than the individualist approach to health lifestyles advocating a free range of choices. Consequently, some have argued that Bourdieu strips agency of much of its critical reflexive character and is, in fact, a determinist even though he denies it (Bohman 1999). Bryan Turner and Stephen Wainright (2003: 273), however, disagree and find that Bourdieu gives "full recognition" to "agency through his notions of strategy and practices," while illustrating the powerful role of institutions and resources "in shaping, constraining, and producing human agency." Simon Williams (1995) also defends Bourdieu by pointing out that the habitus is not a barrier to choice and his perspective accounts for the relative durability of differences in lifestyles between social classes.

I would argue that the *process* of experience rescues Bourdieu's concept of habitus from the charge of "downward conflation." According to Archer, downward conflation refers to theorizing in which structures unilaterally mold the social practices of individuals and have a complete monopoly over causation, thereby shaping behavior from above in a one-way downward direction. However, through experience, agency acquires new information and rationales for prompting creativity and change by way of the habitus. As Bourdieu (Bourdieu and Wacquant 1992: 133), explains, even though experiences confirm habitus, since there is a high probability that most people encounter circumstances that are consistent with those that originally fashioned it, the habitus nevertheless "is an *open system of dispositions* that is constantly subjected to experiences, and therefore constantly affected by them in a way that reinforces or modifies its structures." Thus the habitus can be creative and initiate changes in dispositions, although this potential is not stressed in Bourdieu's work.

While dispositions toward practices originate in the habitus, the practices themselves are carried out in social contexts that Bourdieu conceptualizes as "fields." Fields are networks or configurations of objective relations (domination, subordination, etc.) between social positions (Bourdieu and Wacquant 1992). Fields thus contain people who dominate and others who are dominated (Bourdieu 1998a: 40). A field therefore constitutes a structured social space or what Bourdieu describes as an "arena" in which people and institutions use their capital—economic, cultural, and social—to maneuver for advantage in a hierarchical structure of relationships. Amounts and types of capital determine positions in the hierarchy relative to others in the field. Some positions are clearly more powerful and so the power relations of a field typically shape the interaction that takes place within it. Peter Korp (2008) maintains that healthy lifestyles can be viewed as the habitual practices of groups that dominate social fields where healthy living is considered important. The opposite could be the case in fields with different power dynamics. The exercise of agency is therefore influenced from outside the individual by fields and capital, while habitus shapes it from the inside.

Bourdieu calls for the rejection of theories that either explicitly or implicitly claim that the weight of structure on individuals takes away their behavioral options. This assertion shows him opposing determinism, although he also maintains that the rejection of mechanistic theories of behavior does not imply that we should bestow on some creative free will the exclusive power to generally constitute the meanings of situations and determine the intentions of others. The dispositions generated by the habitus tend to be compatible, in his view, with the behavioral parameters set by the wider society; therefore, usual and practical modes of behaving—not unpredictable novelty—typically prevail. Consequently, Bourdieu emphasizes structure more than agency even though he accords agency the capacity to direct behavior when motivated; otherwise, his perspective largely accounts for routine behaviors that people enact without having to analyze or even think much about unless deeper attention is required.

Bourdieu's major contributions to our understanding of health lifestyles therefore fall into three major areas: (1) his concept of the "distance from necessity" as the origin of class differences in lifestyle practices (2) identifying the role of habitus in creating and reproducing lifestyles, and (3) emphasizing this role by going beyond Weber and Giddens to show how structure, or in Weberian terms, life chances determine lifestyle choices. He is at his best in analyzing how lifestyles produce distinctions between social classes.

The merit of Bourdieu's (1984) approach is that he maintains there is a structural dimension to lifestyle practices rather than individuals making random or uncoordinated choices on their own. What he accomplishes is to bring structure back into forefront of contemporary theoretical discourse by emphasizing the power of invisible objective structures that nonetheless shape practices. These structures, especially class position, actively influence and potentially determine behavioral outcomes through a person's subjective interpretation of their circumstances (Monnier 2007; Swartz 1997). Bourdieu advances a structural theory of social practices that connects individual action to culture, structure, and power relationships with his notions of capital and field that influence the individual externally and habitus that internalizes the influence of external structures within the individual's own behavioral repertoire. From my perspective, Bourdieu's notion of habitus is central to a theory of health lifestyles as it provides the individual with the social parameters or boundaries for his or her choices that channel a person down a particular pathway as opposed to others that might be chosen.

As I have said elsewhere (Cockerham 2005: 53), sociological concepts reflecting literally all theories of social life attest to the fact that *something* (namely structure) exists beyond the individual to give rise to customary patterns of behavior. These concepts range from Durkheim's ([1895] 1950: 13) notion of social facts as "every way of acting, fixed or not, capable of exercising on the individual an external constraint" to Mead's (1934: 155) view of the "generalized other" as the organized attitudes of the whole community and the social process through which "the community exercises control over the conduct of its individual members." To assign individuals complete freedom in their lifestyle choices overlooks the pervasive boundaries placed on those choices by the social structures in their lives.

Health Lifestyles: A Theory

Before presenting an updated theory of health lifestyles, it is logical to first define the subject being theorized. My definition (Cockerham 2000, 2005) is as follows: health lifestyles are collective patterns of health-related behavior based on choices from options available to people according to their life chances. This view incorporates the dialectical relationship between life choices and life chances proposed by Weber ([1922: 531–9] 1978: 926–39) and the duality of structure suggested by Giddens (1987:60–61). While health and other lifestyle choices are voluntary, life chances—which represent structure, especially class position—either empower or constrain choices as choices and chances work off each other to determine behavioral outcomes. That is, the person has the capability of choosing his or her lifestyle, but the choices are limited by what is possible and strongly influenced by the style common to one's class position, age, gender, and the like. The theory is therefore based on the premise that health lifestyles are not the uncoordinated behaviors of disconnected individuals, but rather are personal routines that merge into an aggregate form that are characteristic of specific groups and classes. This paradigm is presented in Fig. 7.1. The arrows between boxes indicate hypothesized causal relationships.

Beginning with Box 1, in the top box in Fig. 7.1, four categories of structural variables are listed that have the capacity to shape health lifestyles: (1) class circumstances (2) age, gender, and race/ethnicity (3) collectivities, and (4) living conditions. What is meant "by capacity to shape" is that each of these categories can affect the lifestyle choices made by individuals. They do so in ways suggested by Bauman (1999: 72) in that they provide an *agenda of choices* (a set of available choices, but the composition of the set itself is seldom for the chooser to decide) and the *code of choosing* (social rules that tell the chooser what is appropriate or inappropriate). In the first instance, structural conditions, not the individual, establish the range of choices available for the person to choose from; in the second situation, structural conditions provide the rank order of preferences for the individual. For example, an individual's class circumstances determine what is available to choose from and what *should* be chosen. This starting point suggests that the model is one of downward conflation; however, this is not the case, since as will be discussed, agency enters the model in Box 3.

Class Circumstances

The first category of structural variables in Box 1 is class circumstances that, from all accounts, is the most powerful influence on lifestyle forms. Not only is this claimed by a host of sociological theorists ranging from Veblen to Bourdieu, but also is supported by the research literature. Virtually every study confirms that the lifestyles of the upper and upper-middle classes are the healthiest of any socioeconomic strata and progressively worsen the lower one descends the social ladder. More affluent classes have the highest participation in leisure-time sports and exercise, healthier diets, moderate drinking, little or no smoking, more physical checkups by physicians, and greater opportunities for rest, relaxation, and coping successfully with stress (Antunes 2011; Carpiano et al. 2008; Grzywacz and Marks 2001; Jarvis and Wardle 1999; Narcisse et al. 2009; Robert and House 2000; Snead and Cockerham 2002). The upper and upper-middle classes are also the first to have knowledge of new health risks and, because of their greater resources, are most able to adopt new health strategies and practices (Link and Phelan 2000). The advantaged classes are able to move in a more fluid fashion to embrace new health behaviors, such as adopting low cholesterol and low carbohydrate diets. They were able to reduce their risk of heart disease in the United States (which at one time was high relative to the lower class) so that lower class individuals are now at greater risk.

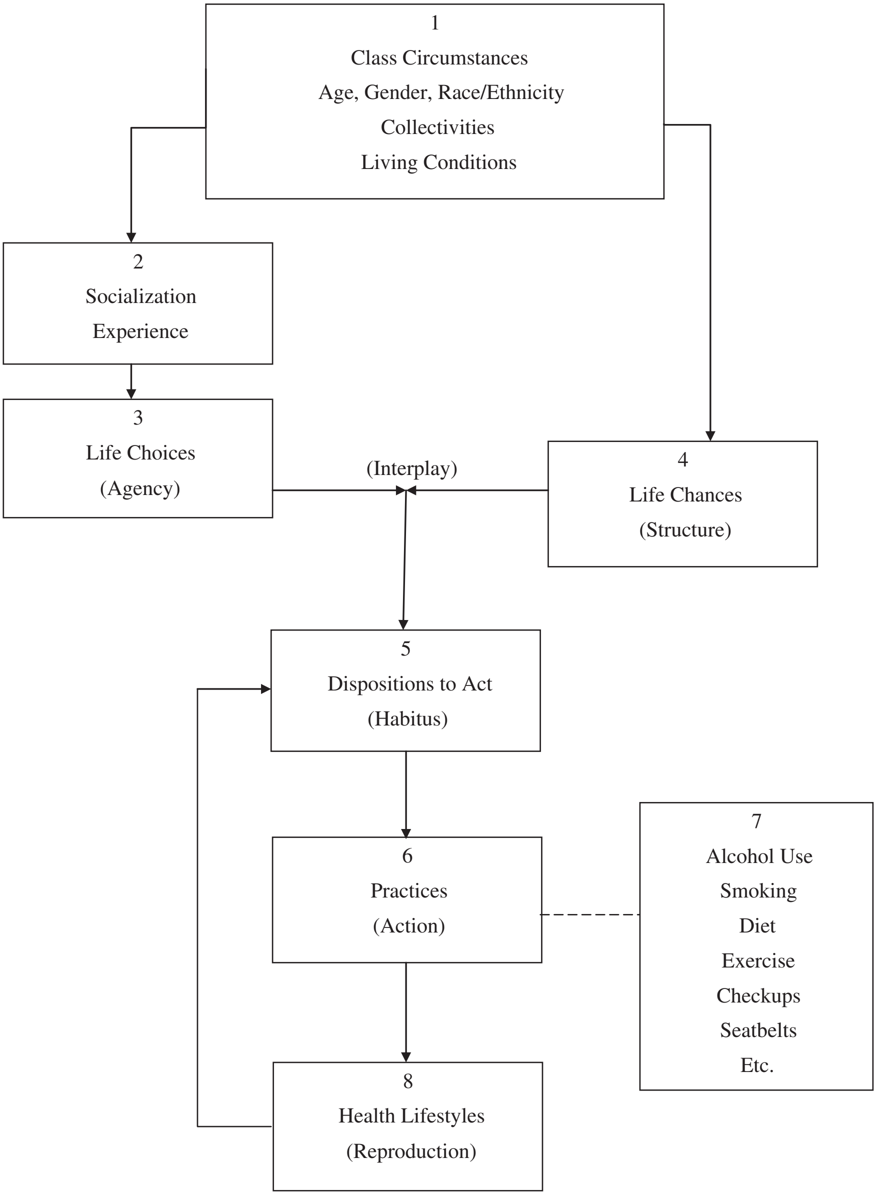

Fig. 7.1 Health Lifestyles Paradigm

A decisive component of class standing in the social gradient of health is education (Mirowsky and Ross 2003). Better educated people are typically healthier because they have the knowledge to help them lead healthier lives with respect to their lifestyles and seek preventive and curative forms of medical care when they need it. While education is obviously a critical factor in relation to health, it is nevertheless part of a broader dimension of class membership that enables people in higher social strata to be healthier over the life course. The other factors are income that provides them with the financial resources to live a healthy life and occupational status that provides them with high self-esteem and sense of responsibility. Although it is clear that education plays an especially powerful role in the selection of health lifestyle practices, income and occupational status join education as the major components of social class or socioeconomic status (SES).

According to Nancy Adler and her associates (1994), the three SES variables—education, income, and occupation—are interrelated but not identical nor fully overlapping. Since associations between SES and health are found with each of these variables, Adler et al. (1994: 15) suggest that a boarder underlying dimension of social stratification or social ordering exists that exerts a potent influence on health-related behavior. That is, education is not just a characteristic of individuals, but it can also be viewed in combination with the other components of class to constitute a broad structural variable that produces top-down distinctions in the quality and form of health lifestyles. Moreover, it determines the social context for the practice of such lifestyles. So while education, income, and occupational status are separate individual qualities, collectively they constitute a structural variable whose influence is evident when people express the tastes, distinctions, outlooks, behaviors, and lifestyles common to their class as a whole.

Furthermore, Weber (1946) not only found that lifestyles expressed distinct differences between status groups and their adoption was a necessary feature of upward social mobility, but he also observed that powerful social strata were “social carriers” of lifestyles. These carrier strata were important causal forces in their own right as they transmitted class-specific norms, values, religious ethics, and ways of life across generations (Kalberg 1994). In this way, as Bourdieu (1984) observes, patterns of lifestyles in one generation are reproduced over the time in the next generations that appear and the powerful influence of class on health lifestyles continues. The upper middle class typically serves as a social carrier of positive health lifestyles because its “distance from necessity” – to use Bourdieu’s (1984) terminology – allows them the leisure time, access to sources of authoritative knowledge, and resources to learn about appropriate health behavior and adopt such behavior as a public model for other classes.

Age, Gender, and Race/Ethnicity

Stratification variables such as age, gender, and race/ethnicity were not considered by Weber, but contemporary empirical studies show that these variables also influence health lifestyles. Age affects health lifestyles because people tend to take better care of their health as they grow older by being more careful about the food they eat, resting and relaxing more, and either reducing or abstaining from alcohol use and smoking (Cockerham 2013). Exercise, however, is one major health lifestyle activity that declines and is often lost with advancing age (Grzywacz and Marks 2001; Jones et al. 2011). Younger adult age cohorts, conversely, tend to drink alcohol and smoke more, while younger males in particular are more likely to engage in risky behavior (Cockerham 2006). Thus age groups have distinctive lifestyle practices that tend to change as they grow older.

Yet we additionally know that class can intersect with age to produce further differences in lifestyle practices within age groups, as seen in teenage smoking that appears significantly more among the lower strata than the middle and upper (Jarvis and Wardle 1999; Narcisse et al. 2009). Ian Rees Jones and his colleagues (2011) found that class becomes less important as men age for exercise, but other practices like smoking and alcohol use retain a strong class patterning. Jones et al. conclude that these health lifestyles become fixed or "locked in" and remain socially structured even in later life. The concept of a selective lifestyle "lock-in" along class lines illustrates the durability of class influences on health lifestyles over the life course.

As for gender, it is clearly a highly significant variable in that women eat more healthy foods, drink less alcohol, smoke less, visit doctors more often for preventive care, wear seatbelts more frequently when they drive, and, with the exception of exercise, have healthier lifestyles overall than men (Annandale 2010; Blaxter 1990; Cockerham 2000, 2005, 2013; Grzywacz and Marks 2001). Furthermore, in adolescence, males tend to adopt the health lifestyles of their fathers and females those of their mothers, thereby setting the parameters for the transmission of gender-specific health practices into adulthood (Wickrama et al. 1999). But whereas gender is a strong predictor of health lifestyle practices in its own right, its effects can also be moderated by class distinctions, as people higher on the social scale, regardless of gender, eat healthier diets, smoke less, and participate more in leisure-time exercise (Cockerham 2013).

Race and ethnicity are presumed to be important, but there is a paucity of research directly comparing the health lifestyles of different racial and ethnic groups. Black-white comparisons in the United States show that whites often drink alcohol, smoke, exercise, and practice weight control more than blacks (George and Johnson 2001; Grzywacz and Marks 2001; Hattery and Smith 2011; Johnson and Hoffman 2000; Pampel 2008; Saint Onge and Krueger 2011), but the differences have not been fully documented. An effort to rectify this situation with respect to nutrition in the black population is found in the work of Angelea Hattery and Earl Smith (2011). They link poor diets to diabetes, colon cancer, infant mortality, and premature deaths. Being disproportionally more likely to be poor, blacks were less likely to eat healthily and exercise. "And, just as the poor in other parts of the world are more vulnerable to diseases like malaria and cholera," states Hattery and Smith (2011: 55), "the poor, and increasingly African Americans, are more vulnerable to the diseases associated with an unhealthy lifestyle."

There is also evidence that exercise declines more steeply for blacks than whites across the course of adulthood, yet this pattern may be caused by blacks having more functional health problems and living in less safe neighborhoods (Grzywacz and Marks 2001). The risk of victimization in an unsafe neighborhood can significantly undermine the motivation to engage in outdoor exercise. Other research by Jarron Saint Onge and Patrick Krueger (2011) finds that non-Hispanic whites and more educated individuals exercise more than non-Hispanic blacks, Hispanics, and less educated persons. Non-Hispanic whites and the educated also disproportionately participate in facility-based exercise (swimming, tennis, golf), while non-Hispanic blacks favor team sports (basketball) and fitness activities (running, walking) and Hispanics gravitate toward team sports (soccer). Recreational facilities are often absent in low-income areas and the ability to participate in team sports declines much earlier in life than facility-based exercise. This gives non-Hispanic whites and better educated persons an advantage in exercising longer as they age. Saint Onge and Krueger observe that the type and extent of leisure-time physical activity is shaped by the cultural identities and social circumstances of the participants.

Most studies on health and race, however, address levels of morbidity and mortality rather than specific health practices. These studies often suggest that racial disparities in health are largely but not exclusively determined by class position, with disadvantaged socioeconomic circumstances and the adverse life experiences associated with them promoting poor health (Bradby and Nazroo 2010). Clearly, more research is needed to determine the extent of racial differences in health lifestyle practices.

Research on the relationship between health lifestyles and different ethnic groups is also lacking, including how to best conceptualize and measure ethnicity. Existing studies of ethnicity, like those of race, have focused more on the overall health profiles of ethnic groups than on health lifestyles. Nevertheless, Saffron Karlsen and James Nazroo (2002) found that the structural influences seen in ethnic-oriented patterns of discrimination and harassment, along with lower class social status, had greater effects on health than personal identities. Such identities were considered products of agency in that they were self-constructed and internally defined by the individual. That is, how the individual defined him or herself in relation to their ethnicity was not as important for their health as structural conditions beyond the individual, namely discrimination.

Collectivities

Collectivities are collections of actors linked together through specific social relationships and networks, such as the workplace, kinship, religion, and politics. The shared norms, values, ideals, and social perspectives of such collectivities has been held to constitute inter-subjective "thought communities" beyond individual subjectivity that reflect a particular collective world view (Zerubavel 1997). The notion of thought communities is akin to Mead's (1934) concept of the generalized other in that both are abstractions of the perspectives of social collectivities or groups that enter into the thinking of the individual. While people may accept, reject, or ignore the normative guidance rendered by such groups, group views are nonetheless likely to be taken into account when choosing a course of action (Berger and Luckmann 1967). Weber ([1922] 1978) notes that concepts of collective entities have meaning in the minds of individuals, partly as something actually existing and partly as something with normative authority. "Actors," states Weber ([1922] 1978:14), "thus in part orient their action to them, and in this role such ideas have a powerful, often a decisive, causal influence on the course of action of real individuals."

Religion and ideology are examples of collective perspectives that have implications for health lifestyles. This is seen in the usual preference of highly religious persons and groups for positive health lifestyles since their beliefs invariably promote healthy living in the form of good nutrition, exercise, and personal hygiene, while discouraging alcohol use and smoking cigarettes (Hill et al. 2007; Idler 2010). However, the full extent of the relationship between religiosity and health lifestyles is not known because of a lack of relevant studies. This is an important area that needs further research.

Little is also known about ideology and health lifestyles. Research on the effects of the socialist heritage in Russia show that pro-socialists (those who are in favor of a return to state socialism as it was under communism) have less healthy lifestyles than anti-socialists, even though neither group demonstrated exceptionally positive health practices (Cockerham et al. 2002). Pro-socialists had a particularly passive approach to health lifestyles that seemed left over from Soviet times. The choices of individuals in Soviet society were confined to a single social and political ideology (communism) and expected to conform to it. When a person got sick, the state was responsible for taking care of that person as a benefit of state socialism. Individual incentives in health matters were not encouraged. Thus it could be argued that communism was bad for one's health as it failed to promote healthy lifestyles practices. However, the extent to which ideology generally affects health lifestyles beyond this example has not been determined.

Surprisingly, there is also little research on family and kinship group influences concerning health lifestyles, although we know from K. A. S. Wickrama and his colleagues (1999) in the United States that such influence can be strong. The family typically influences how a particular person perceives his or her health situation (Cockerham 2012). Most individuals are born into a family of significant others—significant because they provide the child with a specific social identity and sense of self. This identity includes not only an appraisal of physical and intellectual characteristics, but knowledge about the family's social and medical history. In addition to learning the family's social status, perspective, and cultural orientation, the child learns about the health threats most common for the family and the measures needed to cope with them. As the child becomes older and takes as his or her own the values and attitudes of the immediate family, community, and wider society as presented through the mediating influence of the family, the child is considered properly socialized in that he or she behaves in accordance with group-approved rules.

Children can either accept or reject the social perspective of their family as representative of their own social reality. Yet the reality presented to them in the process of primary socialization is set by adults who determine what information is provided and assessments of the validity of opposing viewpoints. Although children are not necessarily passive in the socialization experience, what is important is that they have no choice in the selection of their significant others so that identification with them is quasi-automatic (Berger and Luckmann 1967). This further means that children's internalization of their family's interpretation of social reality is quasi-inevitable and Bourdieu finds is instrumental in forming the habitus. Although the initial social world presented to children by their significant others may be weakened by later social relationships and views, it can nonetheless be a lasting influence. Parental influence, for example, has been found to be the most important and persistent influence on the preventive health beliefs of their children and significant in shaping their health lifestyles (Wickrama et al. 1999).

Living Conditions

Living conditions are a category of structural variables pertaining to differences in the quality of housing and access to basic utilities (e.g., electricity, gas, heating, sewers, indoor plumbing, safe piped water, hot water), neighborhood facilities (e.g., grocery stores, parks, recreation), and personal safety. Such conditions may also apply to other sites where people spend their lives, such as their place of work or employment. To date there has been little research linking living conditions to health lifestyles, but the connection is important. Mildred Blaxter (1990) found in a nationwide British survey that still has relevance for today when she determined that the environment within which a person lives strongly affects health-related behavior. Health lifestyles were most effective in positive living situations and least effective in unhealthy conditions, such as substandard housing, pollution, lack of public services and medical facilities, poor quality food, sewage and drainage problems, exposure to insects and rodents, and high levels of neighborhood unemployment, crime, alcoholism, and drug abuse.

Blaxter concluded that socioeconomic circumstances and the living environment determined the extent to which health lifestyles can be practiced effectively. This is an important finding in that it shows the structural conditions of people's lives makes it probable or improbable they can actually achieve a positive health lifestyle. Blaxter (1990: 216) finds that if living conditions are good, healthy behavior appears to have a strong influence on health, but if they are bad, then behavior makes little difference and is often unhealthy. Consequently, living a healthy lifestyle was not simply a matter of individual choice, but to a large extent depended upon a person's social and material environment for its success.

In the United States, living in disadvantaged neighborhoods has also been associated with poor health (Browning and Cagney 2002, 2003) and growing up in affluent neighborhoods has been found to have positive long-term health effects (Vartanian and Houser 2010). Other research, as previously noted, also shows that living in less safe neighborhoods significantly contributes to the low participation in vigorous outdoor exercise (Grzywacz and Marks 2001). Consequently, living conditions can constrain or enhance health lifestyles.

Socialization and Experience

Class circumstances and the other variables shown in Box 1 in Fig. 7.1 provide the social context for socialization and experience as depicted by the arrow leading to Box 2. This is consistent with Bourdieu's (1977) view that dispositions to act in particular ways are constructed through socialization and experience, with class position providing the social context for this process. The present model, however, adds the additional structural categories – age, gender, race/ethnicity, collectivities, and living conditions – depicted in Box 1, since they also comprise part of the social environment within which socialization and experience occur.

Whereas primary socialization represents the imposition of society's norms and values on the individual by significant others and secondary socialization results from later institutional training, experience is the learned outcome of day-to-day activities that comes about through social interaction and the practical exercise of agency. It is through both socialization and experience that the person or actor acquires reflexive awareness and the capacity to perform agency, but experience – with respect to life choices – provides the essential basis for agency's practical and evaluative dimensions to evolve over time. This is especially the case as people confront new social situations and conditions.

Life Choices (Agency)

Figure 7.1 shows that socialization and experience (Box 2) provides the capacity for life choices (agency) depicted in Box 3. As previously noted, the term "life choices" was introduced by Weber as one of the two major components of lifestyles (the other is life chances) and refers to the self-direction of one's behavior. It is an English language translation of *Lebensführung*, which in German literally means conducting or managing one's life. Life choices are a process of agency by which individuals critically evaluate and choose their course of action. Weber's notion of life choices accounts for the interpretive process whereby the potential outcomes of choices are imagined, evaluated, and reconstructed in the mind and then selected and acted upon to achieve desired goals (Emirbayer and Mische 1998). Weber (1949) maintained that individuals have the capacity to interpret their situation, make deliberate choices, and attach subjective meaning to their actions. All social action in his view takes place in contexts that imply both constraints and opportunities, with the actor's interpretive understanding (*Verstehen*) of the situation guiding behavioral choices (Kalberg 1994).

Life Chances (Structure)

Class circumstances and to a lesser degree the other variables in Box 1 constitute life chances (structure) shown in Box 4. Life chances are the other major component of lifestyles in Weber's model. Weber was ambiguous about what he meant by life chances, but the term is usually associated with the advantages and disadvantages of relative class situations. Ralf Dahrendorf (1979: 73) finds that the best meaning of life chances in Weber's work is the "crystallized probability of finding satisfaction for interests, wants and needs, thus the probability of the occurrence of events which bring about such satisfaction." Consequently, the higher a person's position in a class hierarchy, the better the person's life chances or probabilities for finding satisfaction and vice versa. Dahrendorf (1979: 65) adds the following clarification; "for Weber, the probability of sequences of action postulated in the concept of chance is not merely an observed and thus calculable probability, but is a probability which is invariably anchored in structural conditions." Thus a person's probabilities for satisfaction that comprise his or her life chances are based on the structural conditions in their life, especially their class position. Weber's thesis is that chance is socially determined and social structure is an arrangement of chances. Therefore, life chances represent the influence of structure in Weber's *oeuvre* and this paradigm.

Choice and Chance Interplay

The arrows in Fig. 7.1 indicate the dialectical interplay between life choices (Box 3) and life chances (Box 4). This interaction is clearly Weber's most important contribution to conceptualizing lifestyle construction (Cockerham et al. 1993; Cockerham et al. 1997). Choices and chances operate in tandem to determine a distinctive lifestyle for individuals, groups, and classes. Life chances (structure) either constrain or enable choices (agency); agency is not passive in this process, however. As Archer (2003) explains, whether or not constraints and enablements are exercised as causal powers is based on agency choosing the practices to be activated. "Constraints," says Archer (2003: 4), "require something to constrain, and enablements something to enable." Consequently, people have to consider a course of action if their actions are to be either constrained or enabled. People therefore align their goals, needs, and desires with their probabilities for realizing them and choose a lifestyle according to their assessments of their resources and class circumstances. Unrealistic choices are not likely to succeed or be selected, while realistic choices are based upon what is structurally possible.

In this context, choices and chances are not only connected dialectically, but are analytically distinct. As Archer (1998: 369) points out: "Because the emergent properties of structures and the actual experiences of agents are not synchronized (due to the very nature of society as an open system), then there will always be the inescapable need for a two-part account." Weber provides such a framework. He conceptualizes choice and chance as separate components in the activation and conduct of a lifestyle and merges the different functions of agency and structure without either losing their distinctiveness.

Up to this point, the health lifestyles paradigm has indeed been an example of Archer's (1998) notion of downward conflation in which individual behavior is molded by structure in the form of class circumstances, gender, collectivities, etc. However, even though structure is dominant in the beginning because people are socialized and have experiences within the context of the pre-existing social structures that comprise their world, agency enters the model at the mid-point where choices and chances interact and outcomes are chosen from what is available. In this way, the one-dimensional theorizing that the term "conflation" represents in Archer's critique of the macro–micro debate in sociology is hopefully avoided. The health lifestyle model presented here, seeks to blend agency and structure and be neither fully upward nor downward in its approach. Nevertheless, I recognize that there is an imbalance favoring structure since structure proceeds individuals and subjects them to molding through socialization, even though they are nonetheless able to think for themselves, choose, and be creative in their behavior if they feel it is appropriate. However, behavior in familiar settings or day-to-day fields is typically routine, and the reality of this situation is that the habitus seems especially powerful in shaping behavioral practices largely along structural lines.

Dispositions to Act (Habitus)

Figure 7.1 shows that the interaction of life choices and life chances produce individual dispositions to action (Box 5). These dispositions constitute a habitus that, as noted, is a cognitive map or set of perceptions routinely guiding and evaluating a person's choices and options. It is a process of thinking in which social norms and cultural conventions are internalized in the mind, along with the individual's own inclinations, preferences, and interpretations. The habitus produces enduring dispositions toward acting that are not only normative, but habitual and even intuitive. One of its principal functions is that of providing a unity of style linking the practices of a single agent to a class of agents that brings together agents or individuals who are very similar to each other and different from members of other classes (Bourdieu 1998b). Therefore, Bourdieu finds that the habitus retranslates the relational characteristics of a social position into a lifestyle reflecting a unitary set of choices of practices that differentiates itself from the choices of persons in other classes.

As for health lifestyles, the dispositions that are generated are either focused directly on health maintenance or include considerations of health in their adoption, or, conversely, give little or no thought to health outcomes and may even disregard such outcomes even though implications for health nonetheless exist. Consequently, health lifestyles are binary. That is, they usually fall into one or the other of two categories: good or bad. This binary characteristic means that the outcome generated from the interplay of choices and chances have either positive or negative effects on health. Positive health lifestyles are intended to avoid risk and are oriented toward achieving or maintaining one's overall health and fitness. Negative health lifestyles put one at risk for illness and earlier mortality.

Completing the Model

Figure 7.1 shows that dispositions (Box 5) produce practices (action) that are represented in Box 6. The practices that result from the habitus can be based on deliberate calculations, or as noted, habits and intuition. Bourdieu (1984) helps us to realize that practices linked to health lifestyles can be so integrated into routine behavioral repertories that they can be acted out more or less unthinkingly once established in the habitus. He observes that people tend to adopt generalized strategies (a sense of the game) oriented toward practical ends in routine situations that they can habitually follow without having always to stop to analyze them. As a routinized feature of everyday life, it is therefore appropriate to view health lifestyles as guided more by a practical than abstract logic (Williams 1995).

The four most common practices measured in studies of health lifestyles are alcohol use, smoking, diet, and exercise. These are shown in Box 7 along with other practices such as physical checkups by physicians and automobile seatbelt use that comprise other typical forms of action taken or not taken. The practices themselves may be positive or negative, but they nonetheless comprise a person's overall pattern of health lifestyles as represented in Box 8. It is important to note that these practices sometimes have a complexity of their own. Smoking tobacco in any form is negative, but moderate alcohol use (preferably red wine) reduces the risk of heart disease more so than heavy drinking (which promotes it) and abstinence (Klatsky 1999).

Eating fresh fruits and vegetables is positive, but consuming meat can be either positive or negative depending on how it is cooked, its fat content, and how often it is consumed. Relatively vigorous leisure-time exercise has more health benefits than physical activity at work because the latter is subject to stress from job demands and time schedules, while walking and other everyday forms of exercise have some value (Dunn et al. 1999). However, measures of leisure-time exercise may not fully represent the physical activities of women who take care of children and do housework (Ainsworth 2000). It is therefore necessary that researchers take the multifaceted features of health lifestyle practices into account when analyzing them.

Action (or inaction) with respect to a particular health practice leads to its reproduction, modification, or nullification by the habitus through a feedback process. This is seen in Fig. 7.1 by the arrow showing movement from Box 8 back to Box 5. This is consistent with Bourdieu's (1977, 1984) assertion that when dispositions are acted upon they tend to produce or modify the habitus from which they are derived. As conceptualized by Bourdieu, the habitus is the centerpiece of the health lifestyle model.

Conclusion

A central theme of this chapter is that any individualistic paradigm of health lifestyles is too narrow and unrealistic because it fails to consider structural influences on health lifestyle choices. In order to correct this approach and formulate a theory where none previously existed, an updated health lifestyle model is presented here that accords structure a role consistent with its influence in the empirical world. There are times when structure outweighs but does not negate agency and other times when structure may overwhelm agency, and these situations need to be included in concepts explaining health lifestyle practices. A structural orientation does not mean that action is structurally predetermined; rather, it recognizes that social structures strongly influence the thoughts, decisions, and actions of individuals (Sibeon 2004). After all, isn't this what sociology is really about—namely, the systematic study of society?

Furthermore, it seems very rare that agency ever truly frees itself from structure. At least this is the position taken by Mustafa Emirbayer and Ann Mische (1998) whose seminal paper defines what agency actually is and I would agree. The only possible exception would seem to be that of experiencing intense emotion in which rational thought is suspended by the contingencies of the moment. Yet when the moment passes, the constraints and enablements of structure reassert themselves as rationality returns and the individual takes control over his or her emotions.

The theoretical model presented here does favor structure and is obviously strongly influenced by Weber and Bourdieu. Although Bourdieu, in particular, has his critics, his notion of habitus nevertheless represents a novel and logical conceptualization of the internalization of external structures in the mind and perceptual processes of the individual. The result is a registry of dispositions to act in ways that are practical and usually consistent with the socially approved behavioral pathways of the larger social order or some class or group therein. Deviant behavior, of course, is an exception and in this situation, the behavioral pathways chosen are a rejection of society's norms and values. Otherwise, most social behavior is consistent with the norms and outcomes deemed appropriate by society for the situation.

This model of health lifestyles states that four categories of (1) structural variables, namely (a) class circumstances (b) age, gender, and race/ethnicity (c) collectivities, and (d) living conditions, provide the social context for (2) socialization and experience that influence (3) life choices (agency). These structural variables also collectively constitute (4) life chances (structure). Choices and chances interact and commission the formation of (5) dispositions to act (habitus), leading to (6) practices (action), involving (7) alcohol use, smoking, diets and other health-related actions. Health practices constitute patterns of (8) health lifestyles whose reenactment results in their reproduction (or modification) through feedback to the habitus.

The theory is an initial representation of the health lifestyle phenomenon and is subject to verification, change, or rejection through future empirical application. It is an update of an initial theoretical formulation concerning a major aspect of day-to-day social behavior for which no other theory now exists. Moreover, it moves beyond current theoretical trends reflecting an emphasis upon individualism to bring considerations of structure consistent with the reality of everyday life back into the conceptual focus of theory in medical sociology.

References

Abel, Thomas, & Frohlich, Katherine L. (2011). Capitals and Capabilities: Linking Structure and Agency to Reduce Health Inequalities. *Social Science and Medicine, 74*, 236–244.

Adler, Nancy E., Boyce, Thomas, Chesney, Margaret A., Cohen, Sheldon, Folkman, Susan, Kahn, Robert L., et al. (1994). Socioeconomic Status and Health: The Challenge of the Gradient. *American Psychologist, 10*, 15–24.

Ainsworth, Barbara E. (2000). Issues in the Assessment of Physical Activity in Women. *Research Quarterly for Exercise and Sport, 71*, 37–50.

Annandale, Ellen. (2010). Health Status and Gender. In William Cockerham (Ed.), *The New Blackwell Companion to Medical Sociology* (pp. 97–112). Oxford, UK: Wiley-Blackwell.

Antunes, Ricardo Jorge. (2011). The Social Space of Health Inequalities in Portugal. *Social Theory and Health, 9*, 393–409.

Archer, Margaret S. (1995). *Realist Social Theory: The Morphogenetic Approach*. Cambridge, UK: Cambridge University Press.

Archer, Margaret S. (1998). Realism and Morphogensis. In Margaret Archer, Roy Bhaskar, Andrew Collier, Tony Lawson, & Alan Norrie (Eds.), *Critical Realism* (pp. 356–381). London: Routledge.

Archer, Margaret S. (2003). *Structure, Agency, and the Internal Conversation*. Cambridge, UK: Cambridge University Press.

Bauman, Zygmunt. 1992. *Imitations of Postmodernity.* London: Routledge.

Bauman, Zygmunt. (1999). *In Search of Politics*. Stanford, CA: Stanford University Press.

Berger, Peter L., & Luckmann, Thomas. (1967). *The Social Construction of Reality*. New York: Anchor.

Blaxter, Mildred. (1990). *Health Lifestyles*. London: Routledge.

Blumer, Herbert. (1969). *Symbolic Interaction*. Englewood Cliffs, NJ: Prentice-Hall.

Bocock, Robert. (1993). *Consumption*. London: Routledge.

Bohman, James. (1999). Practical Reason and Cultural Constraint: Agency in Bourdieu's Theory of Practice. In Richard Schusterman (Ed.), *Bourdieu: A Critical Reader* (pp. 129–152). Oxford, UK: Blackwell.

Bourdieu, Pierre. (1977). *Outline of a Theory of Practice*. Cambridge, UK: Polity.

Bourdieu, Pierre. (1984). *Distinction*. Cambridge, MA: Harvard University Press.

Bourdieu, Pierre. (1990). *The Logic of Practice*. Stanford, CA: Stanford University Press.

Bourdieu, Pierre. (1998a). *On Television*. New York: New Press.

Bourdieu, Pierre. (1998b). *Practical Reason: On the Theory of Action*. Stanford, CA: Stanford University Press.

Bourdieu, Pierre, & Wacquant, Loïc J. D. (1992). *An Invitation to Reflexive Modernity*. Chicago: University of Chicago Press.

Bradby, Hannah and James Y. Nazroo. (2010). "Health, Ethnicity, and Race." In William Cockerham (Ed.), *The New Blackwell Companion to Medical Sociology* (pp. 113–130). Oxford, UK: Wiley-Blackwell.

Browning, Christopher R., & Cagney, Kathleen A. (2002). Neighborhood Structural Disadvantage: Collective Efficacy and Self-Rated Health in a Physical Setting. *Journal of Health and Social Behavior, 43*, 383–399.

Browning, Christopher R., & Cagney, Kathleen A. (2003). Moving Beyond Poverty; Neighborhood Structure, Social Processes, and Health. *Journal of Health and Social Behavior, 44*, 552–571.

Carpiano, Richard M. (2006). Toward a Neighborhood Resource-Based Theory of Social Capital for Health: Can Bourdieu and Sociology Help? *Social Science and Medicine, 62*, 165–175.

Carpiano, Richard M., Link, Bruce G., & Phelan, Jo C. (2008). Social Inequality and Health: Future Directions for the Fundamental cause Explanation. In Annette Lareau & Dalton Conley (Eds.), *Social Class* (pp. 232–263). New York: Russell Sage.

Christensen, Vibeke T. (2011). Does Parental Capital Influence the Prevalence of Child Overweight and Parental Perceptions of Child Weight-Level. *Social Science and Medicine, 79*, 469–477.

Clarke, Adele E., Shim, Janet K., Mamo, Laura, Fosket, Jennifer Ruth, & Fishman, Jennifer R. (2003). Biomedicalization: Technoscientific Transformations of Health, Illness, and U.S. Biomedicine. *American Sociological Review, 68*, 161–194.

Cockerham, William C. (2000). The Sociology of Health Behavior and Health Lifestyles. In Chloe Bird, Peter Conrad, & Allen Fremont (Eds.), *Handbook of Medical Sociology* (5th ed., pp. 159–172). Upper Saddle River, NJ: Prentice-Hall.

Cockerham, William C. (2005). Health Lifestyle Theory and the Convergence of Agency and Structure. *Journal of Health and Social Behavior, 46*, 51–67.

Cockerham, William C. (2006). *Society of Risk Takers*. New York: Worth.

Cockerham, William C. (2010). Health Lifestyles: Bringing Structure Back. In William Cockerham (Ed.), *The New Blackwell Companion to Medical Sociology* (pp. 159–183). Wiley-Blackwell UK: Oxford.

Cockerham, William C. (2012). *Medical Sociology* (12th ed.). Upper Saddle River, NJ: Pearson Prentice-Hall.

Cockerham, William C. (2013). *Social Causes of Health and Disease* (2nd ed.). Cambridge, UK: Polity.

Cockerham, William C., Abel, Thomas, & Lűschen, Gűnther. (1993). Max Weber, Formal Rationality, and Health Lifestyles. *Sociological Quarterly, 34*, 413–435.

Cockerham, William C., Rűtten, Alfred, & Abel, Thomas. (1997). Conceptualizing Contemporary Health Lifestyles: Moving Beyond Weber. *Sociological Quarterly, 38*, 321–342.

Cockerham, William C., Christine Snead, M., & DeWaal, Derek F. (2002). Health Lifestyles in Russia and the Socialist Heritage. *Journal of Health and Social Behavior, 43*, 42–55.

Crompton, Rosemary. (2008). Class and Stratification, (3rd ed.). Cambridge, UK: Polity. Dahrendorf, Ralf. 1979. Life Chances. Chicago: University of Chicago Press.

Dahrendorf, Ralf. (1979). *Life Chances*. Chicago: University of Chicago Press.

Demers, Andrée, Bisson, Jocelyn, & Palluy., J. (1999). Wives' Convergence with Their Husbands' Alcohol Use: Social Conditions as Mediators. *Journal of Studies of Alcohol, 60*, 368–377.

Demers, Andrée, Kairouz, Sylvia, Adlaf, Edward M., Glickman, Louis, Newton-Taylor, Brenda, & Marchand, Alain. (2002). Multilevel Analysis of Situational Drinking among Canadian Undergraduates. *Social Science and Medicine, 55*, 415–424.

Drentea, Patricia, & Moren-Cross, Jennifer L. (2005). Social Capital and Social Support on the Web: The Case of an Internet Mother Site. *Sociology of Health & Illness, 27*, 920–943.

Dunn, Andrea L., Bess H. Marcus, James B. Kampert, Melissa E. Garcia, Harold W. Kohl III, and Steven N. Blair. (1999). "Comparison of Lifestyle and Structural Interventions to Increase Physical Activity and Cardiovascular Fitness." JAMA 281, 327–34.

Durkheim, Emile. ([1895] 1950). *The Rules of Sociological Method*. New York: Free Press.

Emirbayer, Mustafa, & Mische, Ann. (1998). What is Agency? *American Journal of Sociology, 103*, 962–1023.

Fox, Nick, Ward, Katie, & O'Rourke, Alan. (2005). Pro-Anorexia, Weight-Loss Drugs, and the Internet: An 'Anti-Recovery' Exploratory Model of Anorexia. *Sociology of Health & Illness, 27*, 944–972.

George, Valerie A., & Johnson, Paulette. (2001). Weight Loss Behaviors and Smoking in College Students of Diverse Ethnicity. *American Journal of Health Behavior, 25*, 115–124.

Giddens, Anthony. (1984). *The Constitution of Society: Outline of a Theory of Structuration*. Cambridge, UK: Polity.

Giddens, Anthony. (1987). *Social Theory and Modern Sociology*. Stanford, CA: Stanford University Press.

Giddens, Anthony. (1991). *Modernity and Self-Identity*. Stanford, CA: Stanford University Press.

Grzywacz, Joseph G., & Marks, Nadine F. (2001). Social Inequalities and Exercise During Adulthood: Toward an Ecological Perspective. *Journal of Health and Social Behavior, 42*, 202–220.

Hattery, Angela, & Smith, Earl. (2011). Health, Nutrition, Access to Healthy Food and Well-Being among African Americans. In Anthony Lemelle, Wornie Reed, & Sandra Taylor (Eds.), *Handbook of African American Health* (pp. 47–59). New York: Springer.

Hill, Terrence D., Ellison, Christopher G., Burdette, Amy M., & Musick, Marc A. (2007). Religious Involvement and Healthy Lifestyles: Evidence from a Survey of Texas Adults. *Annals of Behavioral Medicine, 34*, 217–222.

Hitlin, Steven, & Elder, Glen H, Jr. (2007). Time, Self, and the Curiously Abstract Concept of Agency. *Sociological Theory, 25*, 170–191.

Husserl, Edmund. [1952] 1989. Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy. London: Kluwer Academic.

Idler, Ellen L. (2010). Health and Religion. In William Cockerham (Ed.), *The New Blackwell Companion to Medical Sociology* (pp. 133–158). Wiley-Blackwell: Oxford, UK.

Jarvis, Martin, & Wardle, Jane. (1999). Social Patterning of Individual Health Behaviours. In Michael Marmot & Richard Wilkinson (Eds.), *Social Determinants of Health* (pp. 240–255). Oxford, UK: Oxford University Press.

Johnson, Robert A., & Hoffman, John P. (2000). Adolescent Cigarette Smoking in the U.S. Racial/Ethnic Subgroups: Findings from the National Education Longitudinal Study. *Journal of Health and Social Behavior, 41*, 392–407.

Jones, Rees Ian, Papocosta, Olia, Whincup, Peter H., Goya Wannamethee, S., & Morris, Richard W. (2011). Class and Lifestyle 'Lock-in' among Middle-Aged and Older Men: A Multiple Correspondence Analysis of the British Regional Heart Study. *Sociology of Health & Illness, 33*, 399–419.

Kalberg, Stephen. (1994). *Max Weber's Comparative Historical Sociology*. Chicago: University of Chicago Press.

Karlsen, Saffron, & Nazroo, James Y. (2002). Agency and Structure: The Impact of Ethnic Identity and Racism on the Health of Ethnic Minority People. *Sociology of Health & Illness, 24*, 1–20.

Klatsky, Arthur L. (1999). Moderate Drinking and Reduced Risk of Heart Disease. *Alcohol Research and Health, 23*, 15–23.

Korp, Peter. (2008). The Symbolic Power of 'Healthy Lifestyles'. *Health Sociology Review, 17*, 18–26.

Link, Bruce G., & Phelan, Jo. (2000). Evaluating the Fundamental Cause Explanation for Social Disparities in Health. In Chloe Bird, Peter Conrad, & Allen Fremont (Eds.), *The Handbook of Medical Sociology* (5th ed., pp. 33–46). Upper Saddle River, NJ: Prentice Hall.

Mead, George H. (1934). *Mind, Self, and Society*. Chicago: University of Chicago Press.

Mirowsky, John, & Ross, Catherine E. (2003). *Education, Social Status, and Health*. New York: Aldine de Gruyter.

Monnier, Christine A. (2007). Pierre Bourdieu. In George Ritzer (Ed.), *The Blackwell Encyclopedia of Sociology* (Vol. 1, pp. 347–350). Oxford, UK: Blackwell.

Mouzelis, Nicos P. (2008). *Modern and Postmodern Social Theorizing*. Cambridge, UK: Cambridge University Press.

Narcisse, Marie-Rachelle, Dedobbeleer, Nicole, Contandriopoulos, Andre-Pierre, & Ciampi, Antonio. (2009). Understanding the Social Patterning of Smoking Practices: A Dynamic Typology. *Sociology of Health & Illness, 31*, 583–601.

Pampel, Fred C. (2008). Racial Convergence in Cigarette Use from Adolescence to the Mid-Thirties. *Journal of Health and Social Behavior, 49*, 484–498.

Pescosolido, Bernice A., McLeod, Jane, & Alegría, Margarita. (2000). Confronting the Second Contract: The Place of Medical Sociology in Research and Policy for the Twenty-First Century. In Chloe Bird, Peter Conrad, & Allen Fremont (Eds.), *Handbook of Medical Sociology* (5th ed., pp. 411–426). Upper Saddle River, NJ: Prentice Hall.

Ritzer, George, & Yagatich, William. (2012). Contemporary Theory. In George Ritzer (Ed.), *The Wiley-Blackwell Companion to Sociology* (pp. 98–118). Oxford, UK: Wiley-Blackwell.

Robert, Stephanie A., & House, James S. (2000). Socioeconomics Inequalities in Health: An Enduring Sociological Problem. In Chloe E. Bird, Peter Conrad, & Allen M. Fremont (Eds.), *Handbook of Medical Sociology* (5th ed., pp. 79–97). Upper Saddle River, NJ: Prentice Hall.

Onge, Saint, Jarron, M., & Krueger, Patrick M. (2011). Education and Racial-Ethnic Differences in Types of Exercise in the United States. *Journal of Health and Social Behavior, 52*, 197–211.

Sewell, William H. (1992). A Theory of Structure: Duality, Agency, and Transformation. *American Journal of Sociology, 98*, 1–29.

Sibeon, Roger. (2004). *Rethinking Social Theory*. London: Sage.

Smelser, Neil. (1997). *Problematics of Sociology*. Berkeley, CA: University of California Press.

Snead, M. Christine, & Cockerham, William C. (2002). Health Lifestyles and Social Class in the Deep South. *Research in the Sociology of Health Care, 20*, 107–122.

Stead, Martine, McDermott, Laura, MacKintosh, Anne Marie, & Adamson, Ashley. (2011). Why Healthy Eating is Bad for Young People's Health: Identity, Belonging and Food. *Social Science and Medicine, 72*, 1121–1139.

Sweat, Michael D., & Denison, Julie A. (1995). Reducing HIV Incidence in Developing Countries with Structural and Environmental Interventions. *AIDS, 9*, S251–S257.

Swartz, David. (1997). *Culture and Power: The Sociology of Pierre Bourdieu*. Chicago: University of Chicago Press.

Turner, Bryan S. (1992). *Regulating Bodies: Essays in Medical Sociology*. London: Routledge.

Turner, Bryan S., & Wainwright, Steven P. (2003). Corps de Ballet: The Case of the Injured Dancer. *Sociology of Health & Illness, 25*, 269–288.

Vartanian, Thomas P., & Houser, Linda. (2010). The Effects of Childhood Neighborhood Conditions on Self-Reports of Adult Health. *Journal of Health and Social Behavior, 51*, 291–306.

Veblen T [1899] 1994. Theory of the Leisure Class. New York: Dover Wainright.

Weber, Max. [1922] 1978. Economy and Society, Vol. 1. Berkeley: University of California Press.

Weber, Max. (1946). *From Max Weber: Essays in Sociology*. New York: Oxford University Press.

Weber, Max. (1949). *The Methodology of the Social Sciences*. New York: Free Press.

Weber, Max. (1958). *The Protestant Ethic and the Spirit of Capitalism*. New York: Scribners.

Wickrama, K. A. S., Conger, Rand D., Wallace, Lora Ebert, & Elder, Glen H, Jr. (1999). The Intergenerational Transmission of Health-Risk Behaviors: Adolescent Lifestyles and Gender Moderating Effects. *Journal of Health and Social Behavior, 40*, 258–272.

Williams, Gareth. (2003). The Determinants of Health: Structure, Context and Agency. *Sociology of Health & Illness, 25*, 131–154.

Williams, Simon J. (1995). Theorising Class, Health and Lifestyles: Can Bourdieu help Us? *Sociology of Health & Illness, 17*, 577–604.

Zerubavel, Eviatar. (1997). *Social Mindscapes*. Cambridge, MA: Harvard University Press.

Chapter 8
Gender Theory and Health

Ellen Annandale

Theoretical development in the field of gender and health has been of restricted influence historically primarily because of its association with the undervalued field of “women’s health”. However the recent expansion of “gender and health” to include men and boys and the appreciation that the analysis of complex contemporary social life is enriched by the theoretical tools fashioned and honed within gender research, has widened its appeal. This has conveyed gender theory not only to the mainstream, but also into the maelstrom of current social theory. This makes it an opportune moment to reflect on the shape of gender theory in relation to health.

Theory and research have a reciprocal relationship; existing theories gradually fall out of fit with societies as they change and new approaches are called into being. Gender-related adjustments in many advanced economies therefore help us to understand why the theoretical sureties that once drove gender and health research, such as the presence of fixed, relatively binary physical and social divides between men and women, have faltered. However, I will suggest that since the sex/gender binary still carries significant meaning within both medical and popular thinking, because it has become *part of* the new diversity, it needs always retain a provisional place in the theoretical toolkit. But as a standalone theoretical instrument, it is too blunt for the analysis of the health of men and women in many of today’s societies. Consequently, I will suggest that we need to craft new conceptual tools that are better enabled to capture the complexity of men’s and women’s heath in today’s fast changing, gender-saturated global economy. One of the most popular tools beginning to be used in the study of gender and health is intersectionality. I will argue that to appreciate the association of gender diversity with health we need to focus not simply at the level of intersections between categories (gender, race, age, sexuality etc.) as the majority of research is apt to do, but rather, as Choo

E. Annandale (✉)
University of York, Sociology, Wentworth College, Heslington Y010 5DD, York, UK
e-mail: ellen.annandale@york.ac.uk

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_8, © Springer Science + Business Media Dordrecht 2013

and Ferree (2010: 129) have argued without reference to health, upon “systems-centered intersectionality effects that are interactive, historically co-determining, and complex”.

Sex and Gender: Feminist Beginnings and Ensueing Developments

The use by feminists of what came to be known by the 1970s as the sex (biology)/gender (social) distinction stems back to at least the eighteenth century when, through the medium of health and the body, women writers began to criticize the conventional mind–body dualism which sustained women’s oppression. Though they were set apart by time and place, influential writers such as Mary Wollstonecraft (1759–97), Harriet Martineau (1802–76), and Charlotte Perkins Gilman (1860–1931) had a shared objective which was to show that women’s ill-health is socially caused, not given by their (supposedly) defective biology (Gilman [1892] 1973, 1915; Martineau [1844] 2003; Wollstonecraft [1792] 1992).

One of the finest illustrations of this is sociologist Charlotte Perkins Gilman’s semi-autobiographical novella, *The Yellow Wallpaper* ([1892] 1973) which recounts the experience of a young woman who, following a nervous breakdown, is taken to rest in an isolated, broken-down mansion under the ‘loving care’ of her physician husband. There the character becomes preoccupied by the form of a woman trapped and trying to escape from within the sprawling pattern of the yellow wallpaper that decorates her bedroom. She struggles and tries to break free, but the wallpaper strangles her and tortures her. Gilman herself suffered, but eventually recovered from, a period of mental illness, which occurred following her marriage and subsequent birth of her daughter. She went on to chronicle the associations between women’s poor health and their situation in life, which she blamed upon the ‘excessive sex distinction’ created by men which had swept across every act of life in her late nineteenth-century America. As she opined:

> When we say *men, man, manly, manhood* and all the other masculine derivatives, we have in the background of our minds a huge vague crowded picture of the world and its activities…And when we say women, we think *female*—the sex. (Gilman 1915: 116–117, emphasis original)

In other words, while women were reduced to and confined by their biology, men were not only permitted but also expected to be so much more. In Gilman’s consideration we should hardly be surprised that this customary mentality brings mental illness in its wake. As she put it in her words to women, “we have so far lived and suffered and died in a man-made world.”[1]

---

[1] Gilman’s ‘Our Androcentric Culture’ was serialised in the *Forerunner*, a commercial journal (funded by advertisements and subscriptions) which Gilman edited between 1901 and 1916. It contained only her individual writing and her responses to readers’ letters. The first 18 parts, published between 1901 and 1910, can be found at http://www.gutenberg.org/ebooks/3017 (accessed 7 March 2012).

Generally put, the resolution for Gilman and many of her early twentieth-century contemporaries was, first, to establish that women are no more determined by their biology than men are and, second, to make clear that the patriarchal image of women's minds and bodies as unruly and unreliable is grossly misconstrued. As discussed elsewhere (Annandale 2009), this fledgling embodied health feminism was still finding its wings at this time. By the 1970s it was soaring, borne high on the sweeping winds of change brought by "second wave" feminism and its deployment of the powerful conceptual distinction between biological sex and social gender. This had almost wholesale appeal, but in common with other influential concepts covered in this edited collection, such as social class, social capital, and medicalization, the sex/gender distinction is a broad canvas that scholars have worked in distinctive and politically inflected ways within the realm of health and beyond. As Skeggs (2008) has written of feminism within sociology, it is the concepts at the heart of what constitutes a discipline that mark the theoretical battleground. In the interest of brevity, differences between "equality" and "difference" feminism throw this into relief and hence serve as a useful starting illustration of the less than consensual use of the sex/gender concept through time.

Although "equality feminists" recognise that biological specificities exist, the contention is that they should not be allowed to make a difference to life experience. The biological body is muted and this reflects the supposition that men and women have "an analogous biological or natural potential that is unequally developed because the social roles imposed on the two sexes are not equivalent" (Grosz 1995: 51). It follows that the social is at least as important—in fact likely more important—than the biological for explaining any differences in the health status of men and women. For example, in an assessment of women's longer average life expectancy, (Verbrugge 1985: 173) placed biology fourth in rank order behind "risk acquired from roles, stress, life styles, and long-term preventative practices"; "psychosocial factors"; and "prior healthcare". The present-day face of equality feminism is gender mainstreaming. Endorsed by the 1995 Beijing platform of the fourth International World Conference of Women, gender mainstreaming has been taken up by agencies such as the United Nations and the World Health Organisation, as well as by many national governments and institutions. For those supportive of its principles, successful mainstreaming shows that feminism "is no longer an outsider protest movement, but is embedded in institutions of civil society and the state" (Walby 2011: 24).

Equality thus framed as women's access to the highly valued, typically male-defined, public sphere, has long been associated with women's health improvement. It has stimulated a lasting tradition of research on the relationship between women's domestic roles, paid employment and health. For example, there is now an extensive body of research on the impact on health of dual or multiple roles, that is, the combination of women's responsibility for paid work and work in the home. Echoing the proposition that it is an optimum balance between social roles that promote health for both men and women, or what we now think of as "work-life balance", many studies have identified a positive effect of "multiple roles" upon health, at least as far as time pressures do not tip this over into "role overload" (Bird and Rieker 2008). Associations have also been drawn between level of gender equality in a society or community and the health of men and women. This has been a particular focus in the Nordic countries, such as Sweden, where gender equality has had a stronger presence in public policy than elsewhere. For example, in a national study, Månsdotter et al (2006) found, amongst other things, that in relation to the domestic sphere, both men and women exhibit higher risks of death and sickness when their roles are 'traditionally unequal' than when they are equal (as measured by the use of parental leave allowances, and temporary child care benefit).

The value of the above studies notwithstanding, by the mid-1990s feminists and fellow travellers were arguing with increasing force that interpreting the relationship between sex and gender as more or less arbitrary is an insufficient basis for an understanding of health and illness, which surely has a biological dimension. This is not to suggest that the physical body is fixed around biological features (such as genitalia or hormones, for example), but that these features themselves are apt to be invested with cultural and political meanings, making biology itself in some measure a social construct. As Åsberg and Birke (2010: 414) have put it, "biology has been (and is still) a kind of politics by other means." Social gender, in its turn, may have its genesis in how we view the body (Gatens 1983). This suggests that rather than averting attention from biology, as "equality feminist"-inspired thinking in general and health research in particular has been apt to do, biology needs to be integral to the theoretical repertoire.

In contradistinction to the equality feminist approach, "difference feminists" have regarded women's biological capacity as the fundamental basis of their physical and mental wellbeing. The eponymous slogan of the 1970s, "the personal is political" was intended to counter the widespread disdain for the numerous local women's consciousness-raising (CR) groups that had sprung up across America and elsewhere. Carol Hanisch, who is often credited for putting this slogan into print, explains that CR was seen by many as "navel-gazing", as "personal therapy", and certainly not as "political": "they belittled us no end for trying to bring our so-called 'personal problems' into the public arena—especially 'all those body issues' like sex, appearance, and abortion" (Hanisch [1970] 2006). Logically, for difference feminists, the body is the principal site of women's oppression.

In the widely-read *For Her Own Good,* now in its second edition, Ehrenreich and English (2005) have exposed the fallacies that women have been asked to accept over the centuries in the name of science. For example, nineteenth-century doctors found uterine and ovarian "disorders" behind almost every possible female complaint, from headaches to sore throats to indigestion. Women's biological constitution was deemed to be so weak that any deviation from the path of marriage, childrearing, and homemaking, which comprised women's true and natural vocation, was unhealthful. As Ehrenreich and English (2005) put it, still in the twenty-first century, medical arguments seem to take the malice out of the oppression of women: what doctors propose is only "for their own good". Consequently, many difference feminists have envisioned the route to women's liberation in healthcare practices outside of the medical mainstream, such as women-controlled non-invasive approaches to childbirth (Annandale and Clark 1996) and, more generally, in the valuing of women's positive biological difference from men (Morgan 1996).

"Wounded Bodies": Men's Health in Crisis?

As the forgoing discussion bears out, and is now regularly drawn attention to, "gender and health" historically has meant "women's health". "Men's health" did not become a concern in its own right until around the mid-1990s. The given explanation for this is that if privilege is invisible to those who have it, then by presenting history as an ungendered and universal process, patriarchal societies and patriarchal medicine have not only fashioned and concealed women's oppression, but disregarded men's experience *qua* men. Practically speaking, concern for men's health emerged from a new interest in men and masculinities within academia and policy circles which incorporated health. In a nutshell, gender is now as much about men as it is about women. This is to be welcomed not only because it is important to explore men's health in its own right, but because it holds out the potential for rich and sophisticated gender comparative analysis (Annandale and Riska 2009).

However, it is fair to say that, to date, the prevailing approach to the analysis of men's health has been through the conventional lens of binary difference (Schofield et al. 2000; Schofield 2012). This corresponds to the feminist approaches already discussed which were initiated several decades earlier (Annandale and Hammarström 2011). It was not long before "the lethal character of traditional masculinity" became a strong gender issue (Riska 2003: 74). It is an unusual piece of writing, academic or popular, on men's health that does not start with the verdict that men's lives are shorter than women's and/or that they suffer more illness during their lives. For example, the Men's Health Caucus of the American Public Health Association argues as follows:

> The status of male health in the United States provides cause for concern about the health of the country and the social context of our society. Males in the United States are born frailer, live sicker, and die younger than their female counterparts. This is true across all racial, ethnic, and socioeconomic groups. When it comes to health and general wellbeing, men are indeed the weaker sex. (Men's Health Caucus 2011: 1)

The word that appears most often alongside discussions of men's health today is *crisis*. As the above quote denotes, this is premised on the twin assumptions of binary difference between men and women and an explicit or implicit claim that it is now not women, but men who are worse off. Yet if we step back and think about it, men's oft-emphasised shorter average life expectancy can only be framed as "premature" death and their higher age-related incidence of some common diseases such as chronic heart disease (CHD) as "excess" set in comparison to women's "longer" average life expectancy and/or "lower" incidence of disease (Annandale and Hammarström 2011).

Men's disadvantage *vis a vis* women is considered within much men's health research to be both biological and social; although, as might be expected, within social science research, customarily it is social factors that are regarded as the most influential (Courtenay 2011). Thus, even though not all men personally adhere to norms of hegemonic masculinity, they are all reckoned to suffer from the necessity of living up to them to some degree. Such norms are deemed to encourage risk taking such as dangerous driving and sports, to foster a disregard for health (via, for example, poor diets, too much alcohol), and to deter men from seeking appropriate help when ill for the reason that asking for help is an admission of weakness likely to be scorned in favour of “toughing it out”. Men are also observed to fall victim to the negative health effects of repressed anger and of coping behaviours inimical to health, such as violence against others, including women (e.g. intimate partner violence).

Gender-related changes in many western societies such as in the domain of education and skills where women’s achievements regularly outstrip those of men, and in the world of work, where the decline in manufacturing and rise of the knowledge economy often has benefitted women’s entry into the labour force (Verick 2010; Walby 2007), have meant that many in the West no longer live in a straightforwardly “man’s world” (Kimmel 2009). Men’s health research often draws upon the popular and, to some extent, also academic assessment that the lives of Western men and women are not only converging but that, women are “winning out” at the expense of men as they “boundary-cross” into “masculine social territories and powerscapes” (Atkinson 2008: 71). It is upon these suppositions that two gender-based health constituencies—“women’s health” and “men’s health”—are formed, at the heart of which there lies a robust binarism between the bodies and experiences of men and women (Schofield 2012; Wadham 2002). This can be problematic in research terms. For example, where men are deemed to avoid seeking help, it is assumed that women, by contrast, visit their doctors quite readily and even that they will consult for less serious health complaints than men (Hunt et al. 2012).

New Worlds of Gender, Call for New Gender Theories

Thus, in spite of their differences, by and large most research on women’s health stemming from both “equality” and “difference” feminism, as well as most of the research on men’s health just discussed, have envisaged health and illness through the lens of categorical biological and/or social *difference* between men and women. This starts from the assumption that, in both social and biological terms, women and men inevitably have more in common with each other than that which might divide them. While this may have been a logical starting point during the decades of the 1960s and 1970s when differences between men and women seemed to make visceral sense to members of society and academic researchers alike, it is a questionable basis for the analysis of life in the twenty first-century where, in some parts of the world, social relations of gender are fast-changing and growing in complexity, and where our biological bodies increasingly are conceived of as modifiable commodities rather than as fixed and given entities. The pressing challenge facing those who seek to understand the relationship between gender and health today is how to make sense of this theoretically without jettisoning the conviction that, the changes outlined apart, all is not necessarily equal in the world as far as gender is concerned (Annandale 2009).

As has now been well rehearsed, the early1990s were a watershed period for feminist theorists generally and for those working in the field of health specifically as they confronted claims of false universalism and sought better ways of theorising and investigating the complexity of twenty-first century social life as it impacts on health. By this time, feminists sympathetic to postmodernism were mounting an increasingly forceful critique of "modernist" feminist theories, which encompassed both "difference" and "equality" feminisms. For those sympathetic to postmodernist theory, the assumption of difference by sex and/or by gender is entirely misguided since to take women's difference to men as a basic premise effectively plays into patriarchy's hands. As Grosz (1990: 101, emphasis added) has put it, binary oppositions are inherently patriarchal since their "very structure is privileged by the male/*non-male* (i.e. female) distinction". Therefore, to accept the proposition that men and women are opposites (irrespective of whether we conceive of sex/gender as biologically or socially based) is to collude in the oppression of women since, under patriarchy, women's "opposite position" will always be negatively defined. Gendered differences support other oppositions in a magnet-like effect—for example, men are rational, women are irrational; women are caring, men are uncaring; and so on. It is by this process that the positively valued "healthy body" attaches to men and the negatively valued "sick body" has historically attached to women (Annandale and Clark 1996).

The resolution from a postmodern perspective was, and is, to deconstruct the binary positions of male/female, man/woman, and sex/gender to reveal that they are in fact artefacts of a modernist worldview rather than apposite descriptors of women's and men's experience. The object is to show that binary thinking has inured us to difference and blinded us to the heterogeneity and plurality that now characterises "postmodern" existence. From this vantage, elevating the suppressed term—female/woman and all that goes with it—is not enough; closure needs to be resisted by subverting or destabilising the hierarchical division itself so that commonalities become as important as differences and that men can no longer easily be associated with all that is valued and women with all that is not (Barrett and Phillips 1992). The idea that our social gender positions flow in a direct course from biological sex is subverted along with the notion of binary biological difference itself. The object is to show the artificiality of binary and fixed ways of thinking about the bodies of men and women.

While much of present-day research on men's health seems to be tied to binary thinking for the reasons already discussed, it is now pointed out with increasing frequency, albeit not necessarily heeded in research terms, that masculinity is far from singular, fixed, and binary in form. Many within the wider expanding field of "men's studies" were quick to embrace Connell's (1987, 1995) influential gender relations approach which, in the context of masculinity, stresses its multiple, co-existing and complex qualities. This was slower to filter into the domain of health research which even now, as remarked upon above, is largely wedded to essentialist and singular constructs of men and masculinity (Galdas 2009). Although it would be misleading to take the accretion of discussions of complexity within men's health studies as indicative of postmodern thinking, the declarations of leading thinkers that, since the 1990s, social scientists have begun to "understand and represent the fluidity and multiplicity" of men's enactment of masculine identities (Broom and Tovey 2009: 4); to appreciate that masculinity is "not a constant, universal essence, but rather an ever-changing fluid assemblage of meanings and behaviours that vary dramatically" (Kimmel 2001: 22); and to recognise that masculinity is "a complex, dynamic, and ever-changing concept, enacted differently in different contexts" (Courtenay 2011: 8); does point to some degree to a shared central concern with feminist inspired research on women's health to deconstruct essentialist ways of thinking about sex and gender in the health domain.

However, irrespective of whether we are concerned with men's health, women's health, or both, it is vital to appreciate that living in a purportedly more fluid and multiple social world means neither that "anything goes", nor that all is equal. In fact, by definition, binaries remain ever possible, not because they are pre-given and immutable divides, but because, in various ways, social scientific and popular interests embrace these divisions which are by definition part of the multiplicity in themselves. For this reason alone we need to keep the concept of gender binaries within the theoretical toolkit of gender and health research. In the following section we will look at why this is important.

The New Faces of Feminism and Masculinism: Diversity and Difference

Social scientists, the media, and men and women themselves, are giving name to a growing catalogue of different types of masculine and feminine identity and practices. From "Metrosexuality", "Ubersexuality", "Transnational business masculinity", to "Girlie", "Raunch", "Hip-Hop feminism," and many more, these tags are ways of making sense of highly complex gender-related changes within societies and communities within them, as well as expressions of individual and collective identity. I have argued elsewhere that the more rigid gender orthodoxies that prevailed up until around the last quarter of the twentieth century are breaking down and being reconfigured in new ways in (Annandale 2009). The older, more traditional, binaries of sex and gender—for example, distinct male and female bodies, distinct male and female social experiences, in work and family life—certainly persist, and indeed are even hyper-accentuated in many of today's Western societies (even beyond), but they exist alongside fluidity and diversity (especially amongst, but not confined, to younger people). For example, consumption patterns which were traditionally highly gendered, such as smoking (male) and dieting (female), are increasingly opened up to both men and women. This is certainly not to conclude that men and women are now equal (though that may be the case for some, in particular domains of life, and places in the world), but rather that far more complex patterns of equality and inequality are apparent. It is useful to look at what this has meant for gender-related ways of being and gender-based social movements.

For some, feminism now has little relevance. For example, taking the UK as her main point of reference, Coward (1999) argues that the balance of power between the sexes has altered so dramatically that we can no longer talk of patterns of female disadvantage and male advantage. For others feminism lives on, it just looks very different to the feminisms of the past. Two very different faces of feminism prevail today. The first is the "mainstreamed" equality feminism referred to earlier which, as remarked upon by Walby (2011:148), is highly successful but much less visible than the feminisms of an earlier time since it is sedimented within institutions (such as the state) and "hidden within intersecting projects", such as a wider equality policies. The second face is "third wave", often dubbed cultural feminism, most visible in the US, which often places a high value on lifestyle, consumption, entitlement, and sometimes sexual display in deportment. For some, such as Walter (2010:14), this hypersexual culture and "exaggerated femininity", which is often celebrated as emblematic of women's liberation and power, is the present-day front of sexism. It is nonetheless understandable in a cultural environment in which, as Levy (2005:92) puts it, nowadays nobody "wants to be the archetypical feminist frump at the back of the room anymore, the ghost of women past."

The so-called "third wave" is a melange of perspectives which elude easy summary. In the book *Bitch*, Wurtzel proclaims, "these days putting out one's pretty power, one's pussy power; one's sexual energy for popular consumption no longer makes you a bimbo" (1998, quoted in Baumgardner and Richards 2000: 141). It is the behaviours that some see as flowing from this way of being and acting that have generated the recurrent backlash over, for example, young women's health behaviours, such as supposed risky levels of alcohol consumption (Day et al. 2004; Lyons and Willott 2008). More softy put, Baumgardner and Richards (2000: 161), emphasis in original) explain that "as feminists *we* love Girlie because it makes feminism relevant and fun and in the moment". Even so, they inject a cautionary note: it can also be a trap of conformity to a brand, an invitation often readily taken up to "buy products created by male-owned companies that capture the slogan of feminism [such as emblazoned on tee shirts], without the power" to go with them Baumgardner and Richards (2000: 161). Yet, further still, according to Aschenbrand 2006: 66):

> We should reject renting our bodies as billboard space for odious companies and use them instead to our advantage, to advertise shit that matters. We should be wearing politically minded clothing, clothes that say things people aren't saying. We should use our tits to make people think about things no one else is making them think about.

Ashenbrand's own company "Body as Billboard" http://www.bodyasbillboard.com sells tee Shirts carrying the slogans such as "Drug Dealer" or "knockout" on the front of the tee shirt and "stop violence against women" on the back (money from the sale of the tee shirt goes to buy antiretroviral drugs (ART) for children in Africa through (http://www.becomeadrugdealer.com).

Feminist politics is then undoubtedly complex and contested. It is also health-related, even though typically this is not to the fore in feminist theorising at present. This alone shows that feminism is alive and kicking, if very different in form to the politics of previous decades. Since, in much the same way, "masculinity means different things to different groups of men at different times" (Kimmel 2001: 22), an assortment of agendas prevail for men and masculinity as they do for women and femininity. The global hegemonic model is still readily identifiable. This man,

> sits in first-class waiting rooms or in elegant business hotels the world over, wearing a business suit by a famous international designer, speaking English, eating 'continental' cuisine, talking on his cellphone, his laptop computer plugged into any electrical outlet, while he watches CNN International on television. (Kimmel 2001: 25)

An important but often neglected observation is that this hegemonic form is embodied. Thus, in their exploration of what they describe as "transnational business masculinity", Connell and Wood (2005) explain that, attractive though it may sound, this is not really a healthy way of life, rather it is characterised by insecurity, long hours, high stress, and frequent air travel, all which take their toll on health and wellbeing. For these men, their lives and their bodies become a difficult project to be managed, much as they are compelled to manage projects in their job—by attention to their diet, exercise, and so on. Although this underscores that privilege is not necessarily coupled with good health, in relative terms it is privilege, nonetheless, and one would imagine it is recognised as such.

Backlash masculinities, by contrast, are directly associated with loss of the privileges associated with the hegemonic ideal. The consequence here too may be an unhealthy life or lifestyle. The prime illustration of backlash activity is the "mythopoetic movement" set forth by Robert Bly (1992) in *Iron John,* which exhorts men to rediscover their original masculinity that according to the author has been stripped away since the 1970s. Writing about masculinity in the global context, Kimmel (2001:26) draws attention to such gendered oppositional movements formed by men, which "tap into a vague masculine resentment of economic displacement, loss of autonomy and collapse of "domestic patriarchy". An example is the US group *The Promise Keepers Men's Ministry*, a conservative Christian group founded in 1999 which is concerned with the restoration of traditional masculinity or "manhood". As Kimmel (2001) argues, members of such groups believe that they have been disenfranchised from the power that they are entitled to. Despite their obvious differences, the hegemonic ideal and the backlash exist alongside pro-feminist men's organisations, such as the US-based *National Organisation of Men against Sexism* (*NOMAS*), which was formed in the 1970s. US researchers in particular have pointed to a growing acceptance of equality with women amongst men more generally in the US (Anderson 2009; Kimmel, 2009).

This abridged summary discussion of the complex catalogue of different forms of "masculine" and "feminine" identity politics and practices makes plain that the lived experience of gender encompasses both diversity and difference both *within* and *between* men and women, boys and girls. Since doing gender is a form of doing health and vice versa (Saltonstall 1993) this has implications for health. But the main argument I want to reiterate at this point is that in order to capture this, the concept of sex/gender distinction cannot be cast out of the theoretical toolkit for the analysis of gender and health since binary thinking remains important within the *social practices* of men and women. The other reason why the distinction needs to be retained is that it persists, and is in many ways becoming more deeply embedded within *medicine.*

Gender Medicine

As argued by Grace (2007:5):

> the pendulum is swinging away from an era of erasure of difference within medicine and its emphasis on sameness (with the problems of male-as-norm), towards an era of valorising the significance of sex differences.

The ever more prominent manifestation of this is "gender-specific medicine". This is self-defined as "the science of the differences in the normal physiology of men and women and the ways that they experience disease" (Legato 2003: 917) or, rather incongruously, as "medicine from a gender biological perspective" (Karolinska Institutet 2007: 5). Much of the momentum for the resurgence of the difference thinking comes from the influential US National Institute of Medicine (IOM) report, *Exploring the Biological Contributions to Human Health. Does Sex Matter*? (Wizeman and Pardue 2001). This report views biological sex as "generally dimorphic" and sets out to focus on "sex-based differences, versus similarities" under the assumption that "they are more likely to successfully demonstrate the need for further research and lead to greater understanding of the significance of sex in human biology and health" (Wizeman and Pardue 2001: 17, 2).

Epstein (2007) has identified a new trend within medicine, which he calls the "inclusion-and-difference" approach. It is powered by two objectives, which are:

> the inclusion of members of various groups generally considered to have been underrepresented previously as subjects in clinical studies; and the measurement, within those studies, of differences across groups with regard to treatment effects, disease progression, or biological processes. (Epstein 2007: 6)

While inclusion is motivated by an appropriate desire to tackle the historical privileging of the male body as the "gold standard" in medical research and practice, it has had the unfortunate consequence of foregrounding male–female differences. Thus, gender-specific medicine is highly relevant to how we understand the relationship between gender and health since, despite professing inclusivity, it actually "reinforces a problematic notion that each individual belongs to a category that can be diagnosed and treated accordingly" (Epstein 2007: 254). Moreover this way of thinking filters into the wider social sphere. For example, as Walter (2010) relates, it is used to explain the "exaggerated femininity" that prevails amongst some women in the US and elsewhere, such as when referring to the Disney Princes brand of dolls and accessories, a spokesperson for Disney said that, "we believe it is an innate desire in the vast majority of young girls to dress up…It's just a genetic desire to like pink" (quoted in Walter 2010: 12). As has been argued elsewhere (Annandale and Hammarström 2011: 583), combined with the growing difference agenda in medicine, this is likely to provoke a gender-specific vigilance which prompts men and women to think about their health in essentially different ways. This could be problematic in its consequences since gendered assumptions about illness, such as that heart disease is a male disease or that osteoporosis only affects women, are misguided.

Two main points have been argued so far in the chapter. First, the sex (biology)/gender (social) binary always needs to have a provisional place in theoretical toolkit of gender and health research for the reason that it still carries significant meaning within both medical and popular thinking. But, sex/gender cannot stand alone. Gender relations and gender expectations, as well as the attitudes and behaviours of men and women, boys and girls are changing and becoming far less annexed to traditional gendered expectations, including those related to health and health-related behaviours. As remarked upon earlier, this is not to infer that women and men are more equal, or even becoming more equal, nor is it to imply that their health is converging in any all-embracing way. Rather more complex and contested patterns of similarities and differences are apparent. This suggests that, within the social sciences, we need to hold onto the sex/gender distinction but also to trouble it. How can this be achieved? Though it has yet to be applied with any depth and vigour to health, intersectionality theory has become a popular way of taking account of the complexity of social life in relation to gender.

Moving Forward?: Intersectionality

The concept of ‘intersectionality’, first coined by Crenshaw in 1989, has become a vogue in feminist analysis of late. As many have pointed out, this is somewhat surprising because there is no consensus as to how it should be defined and how analysis from an intersectional perspective should be carried out (Bose 2012). But, as Davis (2008) argues, it is this very vagueness and openness that no doubt accounts for its appeal; it seems to hold out the promise of being able to deal with both differences and diversity and in a way that does not make feminist theory obsolete. Although intersectionality has yet to filter into the study of inequalities in men’s lives in the way that it has for the study of women, undoubtedly this could apply.

Intersectionality was initially developed to enable a better understanding of the experience of black women and developed within critical studies of race on the back of criticisms of “sisterhood” which it was argued were premised on an inappropriate conception of a generic white, middle-class woman (Collins 1990). For example, worrying about how to understand and deal with “exorbitant rates of solo parenting, domestic violence, drug abuse, incarceration, AIDS and cancer” amongst black women in the late 1990s, Morgan (2000: 52–53) wrestled with her (young) generation’s “precarious relationship to feminism”. Inaugurating the concept of intersectionality some years earlier, Crenshaw (1989:140), 1993 argued that,

> Because the intersectional experience is greater than the sum of racism and sexism, any analysis that does not take intersectionality into account cannot sufficiently address the particular manner in which Black women are subordinated. (p.140)

The crucial point here is that dimensions of potential inequality are not additive, but interactive. They do not simply accumulate, layered on top of each other, rather one category (e.g., race) takes its meaning from another category (e.g., gender) and a “uniquely hybrid creation” emerges at the intersection (Shields 2008: 305). This "hybrid" becomes the object of analysis. Alongside this, Hankivsky (2012) and others maintain that gender must be decentred in the analysis of health, since to always bring it to the fore is inconsistent with what intersectionality requires; namely, leaving open the relative importance of different axes of analysis (beyond the singular focus on sex and gender) and focusing on how these interact in any given situation.

The topic most often taken up to illustrate the utility of intersectionality in the health field has been HIV/AIDS. For example, Dworkin (2005) argues that although there is a vast amount of evidence that heterosexual transmission contributes significantly to women's risk of infection, there are reasons to question the assumptions that have worked their way into the literature such as that:

> a sex/gender system is constituted by biological women who have one gender role known as femininity (and are hurt by it in the HIV epidemic), while biological men have one gender role known as masculinity (and tend to hurt women with it). (Dworkin 2005:617)

Dworkin (2005:618) maintains that "individuals do not have singular identities or experiences within social structures that expand or limit social practices, but rather, intersecting ones". The HIV/AIDS epidemic therefore cuts across the "fault lines" of intersectionality. For example, in the US, "women of colour" are disproportionately affected (race intersects with gender), and, while the overall numbers of men and women affected are about equal, females are disproportionately affected amongst those aged 13-19 (age intersects with gender). (See also Doyal 2009 for a study in England and Inhorn 2006 for a review of US studies of HIV/AIDs which highlight intersectionality and HIV/AIDS).

The usefulness of research such as this aside, intersectionality rightly has come in for considerable criticism, both as a theoretical concept and research approach. Connell (2012) assesses that intersectionality only ends up as a more sophisticated cross classification of categories (e.g., age, gender, health status and so on) which does little to help us understand the dynamics of gender and health; that is, the "way gender orders are created and gender inequalities are created and challenged" (Connell 2012:1676). Choo and Ferree (2010) argue that it could lead us down the path of studying the multiply marginalised, as the identification of various intersections brings to light new groups previously unmarked as suffering in significant and unique ways from inequality. The outcome can be a kind of "context specialisation". They suggest that intersections become like street corners where any "street" (e.g., gender, age, race) crosses any other without being transformed.

I would argue, along with others, that intersectionality approaches only become useful when the intersections of interest are situated within an analysis of the wider social orders of which they are a part and from which they emanate. McCall (2005), for example, proposes that rather than focusing on the intersections of race, class, age, health and so on in order to identify one or more new social categories of potentially disadvantaged people, we should be concerned with the relations between groups as "defined by the entire set of groups constituting each category" (p.1787). Our analytic objective is then to ask why a category is stable or unstable at any point in time, why it is changing (or not changing), and with what implications for health and for other life experiences. Sympathy for this is found in Choo and Ferree's

(2010) concepts of “systems-centered” intersectionality effects. Here the concern is for “intersectionality as shaping the entire social system”, which pushes analysis away from associating “specific inequalities with unique institutions to look, instead for processes that are fully interactive, historically co-determining, and complex” (Choo and Ferree 2010:129). Since systems, such as those of gender, race, age, are path dependent, we are directed to attend to local and historically particular configurations. From an intersectional perspective of this nature, the important thing is not to focus on “multiply marginalised groups”, but rather to analyse the “relationships that affect them intersectionally” (Choo and Ferree 2010: 145). We are prompted to ask: how and why do certain intersections become important and with what consequences? It becomes important to envisage “health” not as an “outcome” of intersectionality effects (e.g., of the intersection of race and gender), as it has tended to be construed when an intersectionality perspective as employed in health sociology (particularly, but not exclusively, where quantitative analysis is concerned), but as a meaningful social practice which is itself part of a set of co-determining intersectional dynamics of gender, class, and so on at the systems level which impact the experiences of locally situated individuals.

I proposed in the introduction to the chapter that we live in a complex gender-saturated global economy. Globalisation is often inappropriately construed in gender neutral terms (Doyal 2005), but, as argued by Connell (2009: 126, emphasis orig.), “there are significant features of the gender order which cannot be understood locally” rather they “*require* analysis on a global scale” Although globalisation must to some extent mean the interconnection of societies, it has no singular logic. Rather than moving in one direction, change is multi-causal and multi-dimensional (Beck 2000; Walby 2009). Consequently we would expect the health experiences of men and women in different parts of the world to be influenced by the network of global companies and the flow of diseases around the globe, but not necessarily in the same way or with the same consequences. In other words, people typically do not present in a neatly packed profile of health risks and benefits associated with their gender, if they ever do. As Pringle and Pease (2001: 248) argue for men, it is “not simply that men’s practices across the world manifest striking commonalities and diversities; but that these two features are intertwined in a paradoxical, and indeed often a contradictory, fashion”.

Conclusion

In this chapter it has been argued that social relations of gender are changing in many societies and this has especially been felt in many western countries over the last couple of decades. Theories based on assumptions of binary difference between men and women have begun to seem dated as commentators emphasise that social relations of gender and gender identities are now more fluid, complex and contested. This does not mean than men and women are now equal (though some may be) but rather that new (in)equalities are forming the intersections of gender with, for example, ages, ethnicities and sexualities, all of which have implications for health. Binary difference (including hyper-accentuated differences) and diversity sit side-by-side in a late modern neo-liberal economy that often profits from chronically unstable identities of gender (Annandale 2009). This, to draw on Choo and Ferree (2010), is a form of systems-centered intersectionality that informs the health experiences of men and women, boys and girls.

References

Anderson, E. (2009). *Inclusive masculinity*. London: Routledge.

Annandale, E. (2009). *Women's health and social change*. London: Routledge.

Annandale, E., & Clark, J. (1996). What is Gender? feminist theory and the sociology of human reproduction. *Sociology of Health & Illness, 18*, 17–44.

Annandale, E., & Hammarström, A. (2011). Constructing the 'genders-specific body': A critical discourse analysis of publications in the field of genders-specific medicine. *Health, 15*, 571–587.

Annandale, E., & Riska, E. (2009). New connections: towards a gender- inclusive approach to women's and men's health. *Current Sociology, 57*, 123–133.

Åsberg, C., & Birke, L. (2010). Biology is a feminist issue: Interview with Lynda Birke. *European Journal of Women's Studies, 17*, 413–423.

Aschenbrand, P. (2006). *The only bush I trust is my own*. London: Corgi Books.

Atkinson, M. (2008). Exploring male femininity in the 'crisis': Men and cosmetic surgery. *Body and Society, 14*, 67–87.

Barrett, M., & Anne, P. (1992). Words and things: materialism and method in contemporary feminist analysis. In M Barrett and A Phillips (eds.), *Destabilising Theory* (pp. 201–219). Cambridge: Polity.

Baumgardner, J., & Richards, A. (2000). *Young women, feminism, and the future*. New York: Farrar, Straus and Giroux.

Beck, U. (2000). *What is globalization?*. Cambridge: Polity.

Bird, C., & Rieker, P. (2008). *Gender and health: The effects of constrained choices and social policies*. New York: Cambridge University Press.

Bose, C. (2012). Intersectionality and global gender inequality. *Gender and Society, 26*, 67–72.

Bly, R. (1992). *Iron John: A book about men*. London: Vintage.

Broom, A., & Tovey, P. (2009). Introduction: Men's health in context. In Alex Broom & Philip Tovey (Eds.), *Men's health: Body, identity and social context* (pp. 1–8). Oxford: Wiley-Blackwell.

Choo, H. Y., & Ferree, M. M. (2010). Practicing intersectionality in sociological research: A critical analysis of inclusions, interactions, and institutions in the study of inequalities. *Sociological Theory, 28*, 129–149.

Collins, P. H. (1990). *Black feminist thought*. London: HarperCollins Academic.

Connell, R. (2009). *Gender* (2nd ed.). Cambridge: Polity.

Connell, R. (2012). Gender, health and theory: Conceptualising the issue, in local and world perspective. *Social Science and Medicine, 74*, 1675–1683.

Connell, R. (1987). *Gender and power: Society, the person and sexual politics*. Stanford: Stanford University Press.

Connell, R. W. (1995). *Masculinities*. Cambridge: Polity.

Connell, R. W., & Wood, J. (2005). Globalization and business masculinities. *Men and Masculinities, 7*, 347–364.

Coward, R. (1999). *Sacred Cows*. London: Harper Collins.

Courtenay, W. (2011). *Dying to be Men*. London: Routledge.

Crenshaw, K. (1989). Demarginalising the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist policies. *University of Chicago Legal Forum, 139*, 139–167.

Crenshaw, K. (1993). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*, 1241–1299.

Davis, K. (2008). Intersectionality as buzzword. *Feminist Theory, 9*, 67–85.

Day, K., Gough, B., & McFadden, M. (2004). Warning! alcohol can seriously damage your health. A discourse analysis of recent british newspaper coverage of women and drinking. *Feminist Media Studies, 4*, 166–183.

Doyal, L. (2005). Understanding gender, health, and globalisation: Opportunities and challenges. In I. Kickbusch, K. Hartwig, & J. List (Eds.), *Globalization, women and health in the twenty-first century* (pp. 9–27). London: Palgrave.

Doyal, L. (2009). Challenges in researching life with HIV/AIDS: an intersectional analysis of black migrants in london. *Culture, Health and Sexuality, 11*, 173–188.

Dworkin, S. (2005). Who is epidemiologically fathomable in the HIV/AIDS epidemic? gender, sexuality, and intersectionality in public health. *Culture, Health and Sexuality, 7*, 615–623.

Ehrenreich, B., & English, D. (2005). *For her own good: Two centuries of the experts' advice to women* (2nd ed.). London: Anchor Books.

Epstein, S. (2007). *Inclusion: The politics of difference in medical research*. Chicago: University of Chicago Press.

Galdas, P. (2009). Men, masculinity and help-seeking behaviour. In A. Broom & P. Tovey (Eds.), *Men's Health: Body, identity and social context* (pp. 63–82). Oxford: Wiley-Blackwell.

Gatens, M. (1983). A critique of the sex/gender distinction. In J. Allen & P. Patton (Eds.), *Beyond Marxism* (pp. 143–160). Leichhardt: Intervention Publishing.

Gilman Perkins, C. (1915). *Herland (unabridged)*. Mineola: Dover.

Gilman Perkins, C. (1892/1973). *The yellow wallpaper*. New York: The Feminist Press.

Grace, V. (2007). Beyond dualism in the life sciences: Implications for a feminist critique of gender-specific medicine. *Journal of Interdisciplinary Feminist Thought, 2*, 1–18.

Grosz, E. (1990). Contemporary theories of power and subjectivity. In S. Gunew (Ed.), *Feminist knowledge. critique and construct* (pp. 59–120). London: Routledge.

Grosz, E. (1995). *Space, time, and perversion*. London: Routledge.

Hanisch, C. (1970/2006). 'The Personal is political." http://www.carolhanisch.org/CHwritings/PIP.html.

Hankivsky, O. (2012). Women's health, men's health and gender and health: implications for intersectionality. *Social Science and Medicine, 74*, 1712–1720.

Hancock, A.-M. (2007). When multiplication doesn't equal quick addition: examining intersectionality as a research paradigm. *Perspectives on Politics, 5*, 63–79.

Hunt, K., Adamson, J., & Galdas, P. (2012). Gender and help-seeking: Towards gender-comparative studies. In E. Kuhlmann & E. Annandale (Eds.), *The palgrave handbook of gender and healthcare* (2nd ed., pp. 241–255). London: Palgrave.

Inhorn, M. (2006). Defining women's health. *Medical Anthropology Quarterly, 20*, 345–378.

Karolinska Insitutet, (2007). *Centre for gender medicine: Short history*. Stockholm: Karolinska Institutet.

Kimmel, M. (Ed.). (1995). *The politics of manhood*. Philadelphia: Temple University Press.

Kimmel, M. (2001). Global masculinities: Restoration and resistance. In B. Pease & K. Pringle (Eds.), *A Man's World? changing practices in a globalized world* (pp. 21–37). London: Zed Books.

Kimmel, M. (2009). "Has a man's world become a woman's nation?." In H Boushey &A O'Leary (eds.), *The shriver report: A woman's nation changes everything* (pp. 323–57). Washington DC. Center for American Progress. http://www.americanprogress.org/issues/2009/10/pdf/awn/a_womans_nation.pdf.

Legato, M. (2003). Beyond women's health: the new discipline of gender- specific medicine. *Gender Clinics of North America, 87*, 917–937.

Levy, A. (2005). *Female chauvinist pigs*. New York: The Free Press.

Lyons, A., & Willott, S. (2008). Alcohol consumption, gender identities and women's femininities. *Sociological Review, 55*, 251–272.

McCall, L. (2005). 'The complexity of intersectionality". *Signs, 30*, 1771–1800.

Månsdotter, A., Lindholm, L., Lundberg, M., Winkvist, A., & Ő̈hman, A. (2006). Parental share in public and domestic spheres: a population study on gender equality, death, and sickness. *Journal of Epidemiology and Public Health, 60*, 616–620.

Martineau, H. (2003 1844). *Life in the Sick-Room.* In Maria F (Ed.). Ormskirk: Broadview Press.

Men's Health Caucus (MHC). (2011). *2011–2012 National policy agenda*. Washington: Men's Health Caucus.

Morgan, J. (2000). *When chickenheads come home to roost: My life as a hip- hop feminist*. New York: Touchstone.

Morgan, R. (1996). Light bulbs, radishes and the politics of the 21st century. In Diane B and Renate K (eds.), *Radically speaking. feminism reclaimed* (pp. 5–8). London: Zed Books.

Pringle, K., & Pease, B. (2001). Afterword: A man's world? rethinking commonality and diversity in men's practices. In B. Pease & K. Pringle (Eds.), *A man's world? changing men's practices in a globalised world* (pp. 245–252). London: Zed Books.

Riska, E. (2003). Gendering the medicalization thesis. *Gender Perspectives on Health and Medicine, 7*, 59–87.

Saltonstall, R. (1993). Healthy bodies, social bodies: men's and women's concepts and practices of health in everyday life. *Social Science and Medicine, 36*, 7–14.

Schofield, T., Connell, R. W., Walker, L., Wood, J., & Butland, D. (2000). Understanding men's health and illness: A gender-relations approach to policy, research, and practice. *Journal of American College of Health, 48*, 247–256.

Schofield, T. (2012). Men's health and well-being. In E. Kuhlmann & E. Annandale (Eds.), *The Palgrave handbook of gender and healthcare* (2nd ed., pp. 273–289). London: Palgrave.

Shields, S. (2008). Gender: An intersectionality approach. *Sex Roles, 59*, 301–311.

Skeggs, B. (2008). The dirty history of feminism and sociology: Or the war of conceptual attrition. *Sociological Review, 56*, 671–690.

Verbrugge, L. (1985). Gender and health: an update on hypotheses and evidence. *Journal of Health and Social Behavior, 24*, 6–30.

Verick, S. (2010). *Who is hit hardest during a financial crisis? the vulnerability of young men and women to unemployment in an economic downturn*. Basingstoke: ILO/Palgrave Macmillan.

Wadham, B (2002). *Global men's health and the crises of western masculinity. In B. Pease and K, Pringle(Eds.), A Man's world*. Changing men's practices in a globalised world (pp. 69–84). London: Zed Books.

Walby, S. (2007). *Gender (In) equality and the future of work*. Manchester: Equal Opportunities Commission.

Walby, S. (2009). *Globalization and inequalities. Complexity and contested modernities*. London: Sage.

Walby, S. (2011). *The future of feminism*. Cambridge: Polity.

Wizemann, T. M., & Pardue, M.-L. (Eds.). (2001). *Exploring the biological contributions to human health. does sex matter?*. Washington: National Academy Press.

Walter, N. (2010). *Living dolls. The return of sexism*. London: Virago Press.

Wollstonecraft, M. (1992/1792). *A vindication of the rights of woman*. London: Penguin Books.

Chapter 9
Theories and the Rise and Fall of the Medical Profession

Bernice Pescosolido

The modern profession of medicine stands among the powerful, if not the most powerful, of occupational groups in contemporary society. Medicine and its practitioners are the arbiters of life and death; of possibilities realized, possibilities reclaimed and possibilities dashed; and of evaluations of "normal" and "abnormal." The expansion of medicine's claim over more and more life spheres has been chronicled and criticized (see Olafsdottir, Conrad, both in this volume). In contemporary society, we turn to physicians to understand what we do, what we should eat, and whether we should punish or treat those who step outside society's norms. And, despite claims that the power of the medical profession may be waning, no viable alternatives have come forth to replace the allopathic system. Even "complementary alternative medicine" (both indigenous and New Age) has been absorbed, transformed, or otherwise brought under its jurisdiction (Astin et al. 1998).

In this chapter, the rise of the modern medical profession to this position of power and prominence will be traced through a recounting of sociological theories. This history can be crafted as a story that begins with the glorious and inevitable march of progress, moves to the inside of an aspiring profession, increasingly considers the other social actors, contexts, and processes that enabled the medical profession, and ends, at least to this point, with the full constellation of other institutions and organizations that have the potential to support or encroach on its boundaries. This recounting may take on the flavor of a "grand narrative" with all of its strengths and flaws (see Klein 2004). However, as a sociology of knowledge, it reflects the dominance of the theoretical ideas of the times in which these theories were fashioned. Perhaps more importantly, it reveals a story of incorporating more and more aspects of context that come together to shape the profession's fate. As Nobel Laureate and political scientist Elinor Ostrom (2009) advised us, understanding the whole of a

B. Pescosolido (✉)
Indiana University, Bloomington, IN, USA
e-mail: pescosol@indiana.edu

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_9,

complex phenomenon requires understanding the *interaction* of specific structures, forces, and processes. I argue that each theory set took on an explanation of critical parts of the complex interactions that constructed the privileged status that the profession of medicine holds. Together, they provide a thorough understanding of the rise to power but, as yet, an incomplete understanding of its present and future.

To this end, and at the risk of being ethnocentric, I will focus primarily on the American case. Much of the work has been done on the U.S. This is perhaps not surprising, as the U.S. is the country where the medical profession achieved the greatest power and, despite concerns over its future, continues to have a degree of control over aspects of its work never achieved in other societies. The American case represents an integral part of how "professions" came to be defined, and its comparison with other countries allowed a separation of what is essential to professional status and what is not.

Clearly, the modern nation state exerted influence in determining the exclusive jurisdiction of allopathic medicine vis-à-vis other systems of medicine (e.g., the initial support for traditional Chinese medicine under Mao and the Communist Party in China; Unschuld 1992) and the extent to which the allopathic system was privately or publically owned and funded (e.g., as part of welfare state in the United Kingdom and the Nordic countries; Berlant 1975; Porter 2001). Just as critically, political power shaped the nature of colonial medicine in Africa (e.g., Lyons 1988) and Asia (Brown 1979), where allopathic medicine was used as a tool of colonial dominance, and in the public systems in the Soviet Union or Chile, where state socialist ideologies explicitly addressed class-based inequalities in the provision of care (Waitzkin 2011). Thus, almost right from the beginning, Freidson (1970a) marked the critical division between the profession's power over the *content* of its work (e.g., diagnosis, treatment) in contrast to control of the *terms* of its work (i.e., the socio-cultural arrangements under which physicians provided services). Yet, to provide an overview of the complex story of how sociological theories of the medical profession engaged and even stood at the forefront of altering larger theoretical trends and foci (e.g., the shift from concerns with the rise of professional power to debates of over its decline) in sociology, training the analytic lens on one country facilitates feasibility.

Sociological Theories of the Medical Profession in Historical Context

All theories—from medical science to mainstream sociology to the Marxist critique—agree on five fundamental and interrelated factors. Understanding these similarities provides an essential foundation upon which to lay out sociological theories focused on the U.S. profession of medicine. First, medicine is one of the "big three" occupations that has clearly and unambiguously staked a claim as a "profession." Despite the rather ubiquitous current use of the term to apply to any number of occupations, only medicine, law, and clergy have a special and privileged position based on unique expertise. Whether that claim was/is justified or "natural" becomes part of the theoretical history. What is also clear is that, as Freidson (1970b) noted, in contemporary society medicine appears to "trump" other professions in terms of power (e.g., determining if an individual can or cannot be tried for a crime depending on their assessment of mental status).

Second, while a special role for healers has existed in every known society and the precursor to the modern physician was established during the Middle Ages, what we now think of as a "physician" (i.e., an allopathic and science-based practitioner) only came to prominence at the beginning of the twentieth century in the U.S. and somewhat earlier in European countries (e.g., roughly the 1860s in Germany; the 1880s in Great Britain; Hollingsworth 1986). Third, science, specifically the "Great Break" (i.e., Germ Theory + Anesthesia + Antisepsis), marked the beginning of the modern medical profession. Despite knowledge of anthrax in ancient societies, French, German, and British scientists around 1860 first documented that this disease was associated with a rod-shaped, blood born body (later called a bacillus; see Turnbull and Shadomy 2011). This is widely considered to be the initial step in the development of the germ theory of modern medicine, the dominant paradigm separating modern physicians from all sorts of other healers. Combined with the development of anesthesia (Pernick 1987) and the call to use antiseptics (Haller 1981), the germ theory represented a major departure from the hot/cold, elemental theories and bloodletting practices of physicians of the day (Freidson 1970b; Lindemann 2010).

Fourth, physicians in the late nineteenth century were not held in higher esteem in their communities than were practitioners of other healing traditions, including homeopathy, midwifery, and folk healing. With their medical bag holding mainly purgatives, opium-based medicines (e.g., laudanum), and tools for blood-letting, even the great physicians of that time (e.g., Benjamin Rush in Philadelphia) offered little that was unique. Because of the harsh and even lethal effects of existing therapies, the public held little regard for medicine and especially hospitals, considering them only as a last resort and "a place to die" (see Warner 1986 on the "therapeutic gloom" of the period). Fifth, in the U.S., all theories point to the Flexner Report of 1910, commissioned by the Carnegie Foundation for the Advancement of Teaching, as sealing the fate of the U.S. health care system and the profession of medicine. Given its fundamental interest in education, the Carnegie Foundation hired Abraham Flexner to visit existing medical schools, many of which were proprietary. School administrators opened their doors, anticipating the private foundation funding that might come from their participation. However, much to their surprise and dismay, Flexner took a strong stance on the viability of and support for only the few, newly established medical schools, such as Johns Hopkins, which adopted a scientific curriculum based on the German university. He argued that all other schools should be closed, and they often were. The Flexner Report rippled through the existing landscape of medicine, and discussions of its role and stakeholder motivations are interpreted differently in theories of the rise of the profession, as we shall see below.

Phase I: The Initial Foray—Looking "Inside" to Unique Characteristics

With medicine's own histories detailing the Great Break, and the victories in World War II serving as the staging platform, sociologists and their colleagues from history, political science, anthropology, public health, and other disciplines sought to understand the modern profession of medicine. They rejected the "Great Man" theories of medicine (e.g., Walsh 1907) in favor of looking to the characteristics of modern practice and practitioners that separated them from other occupations in the medical arena and joined it with the other great professions of law and religion. But even before American sociologists focused their analytic lens in this direction, Sir Alexander Morris Carr-Saunders and Paul A. Wilson in England wrote *The Professions* (1933). Carr-Saunders, initially trained as a natural scientist, turned his attention to many social problems, including eugenics (which he supported). In this classic treatise, the focus was squarely on the obligations of professionals and their duty to serve others, seeing this as a "higher calling." What distinguished professions from other occupations were those characteristics that are still seen as the hallmarks of the professions—a specialized body of expert and esoteric knowledge, long formalized (not apprenticeship-based) training in universities, and the establishment of a professional association which oversaw licensing criteria and the development/enforcement of a code of ethics.

In American sociology, Talcott Parsons (1951) first articulated a theory of the profession, using medicine as an exemplar in his larger theory of modern society. In *The Social System* he saw illness as a practical problem of all societies and he put forth the basic structural functionalist argument. All societies must respond to health and disease in order to have a working society. Thus, all societies create specialized, institutionalized roles for patient and practitioner, who together, work to restore individuals back to health as productive members of society. The status of physician in modern society, based on the progress and promise of science, came with rights and obligations (see Fig. 9.1).

In a more abstract way, then, Parsons followed Carr-Saunders and Wilson in articulating those characteristics that separated the profession from other occupations. First, the profession of medicine is characterized by an *achievement orientation*. Entry into the role is based on technical competence acquired during a

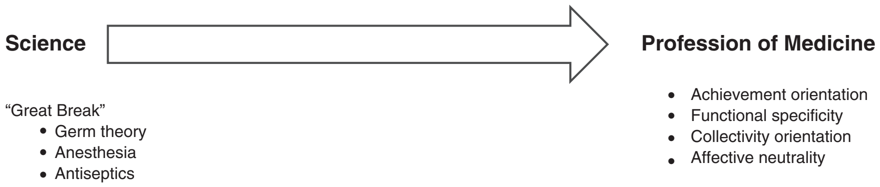

Fig. 9.1 Sociological theories of the medical profession, Phase I: Parsons' Model (1951)

long and rigorous training period. Through formal schooling, physicians acquire the knowledge, skill, certification, and confidence to attend to illness. In essence, physician roles come not from skills handed down or inherited along family lines; rather it is a learned profession. Second, the role of the physician is *functionally specific*. Unlike the more generalized role of healers in premodern societies, physicians are to limit their profession and practice to their scientific training and expertise. They do not serve as "wise men" whose role encompasses understanding and solving all social problems. Third, physicians are expected to approach their work with *affective neutrality*. Illness is cast as an objective problem and patients must be dealt with in a professional and scientifically neutral way. Finally, the profession of medicine's role is characterized by a *collectivity orientation*. Physicians are obligated to put the welfare of patients above all else, especially personal and financial interests. Thus, the profit motive is not central to their work, and the exploitation of sickness for personal gain is strongly prohibited. Parsons specifically contrasted medical work and "commercialism," seeing the latter as the "most serious and insidious evil with which it has to contend" (1951: 435).

Phase II: The Construction of the Profession—Physicians as Self-interested, Proactive Actors Requiring Political and Public Support

Pioneered by Eliot Freidson (1970a, b), this second phase is defined by the concept of professional dominance. Freidson rejected the notion that the power and prestige of the profession of medicine was somehow naturally conferred. As with his concept of the "sick role," Parsons' version of the "professional role" came to be seen as an ideal type in the Weberian sense. In contrast, Freidson and those who followed in this tradition conceptualized one brand of healers in the heterogeneous medical marketplace of the 1800s as actively and consciously working together to create a special status. Science-based medicine offered a striking departure from previous attempts at healing and promised better living by bringing medicine under the canopy of science (Rosenberg 1987). Science was the "hook" upon which allopathic physicians seized to set themselves apart.

Along with Jeffrey Berlant (1975), Magali Sarfatti-Larson (1977) and others, Freidson made clear that this was not an inevitable march of progress nor the only path to a modern profession of medicine. Rather, physicians were determined actors who, through American Medical Association (AMA) leadership, developed a centrally defined political agenda, characterized by the "trappings" of professionalization (e.g., codes of ethics) and an organization of resources to separate themselves from other medical and folk practitioners of the time.

Freidson saw the list of unique characteristics of the professions from earlier theories as deliberately crafted by emerging allopathic physicians to lay claims to preeminence, autonomy and self-regulation. Thus, sociologists in the professional dominance tradition delineated the processes by which occupations actively struggled to become professions. To use Magali Safartti-Larson's term, the "professional project" of aspiring middle-class men was to establish a new view of the body (as machine), disease (as based on the germ theory), and appropriate in-house training of and standards for practitioners (in lab-based, university-attached medical schools; codes of ethics).

Theories of professional dominance focused on the coupling of political power and public confidence. Control over the profession's work was achieved via the efforts of political and economic elites who bolstered the profession's science-based claims for state support and organizational power. As depicted in Fig. 9.2, Freidson saw professional dominance as a two-stage process. The necessary first condition for the establishment of the profession of medicine was to gain a legal monopoly over healing. The exclusive right to practice medicine required a political act—the passage of licensing laws. State by state in the U.S., the scientific profession of medicine drove other competitors (e.g., homeopaths, chiropractors, "granny" midwives) out of practice or drove them underground. Practicing medicine "without a license", a state conferred license, was now illegal and punishable by imprisonment. Second, even with this monopoly, the medical profession had to convince the public to use its services, not those offered by other healing traditions. Freidson saw no reason that "consulting status," as he called it, had to be conferred by government in a similar, heavy-handed manner. He argued, instead, that the public was persuaded by mass education, increasingly molded in the scientific tradition in Western societies, as well as by the visible successes of medicine which would come from scientific application and innovation.

Phase III: Synthesis Embedded in a Cultural Twist: The Social Transformation of American Medicine

In many ways, Starr's (1982) theory represented a grand summary and synthesis of all of the work in the professional dominance tradition that preceded it (Mechanic 1983). With no need to reject that approach, Starr argued that a key component,

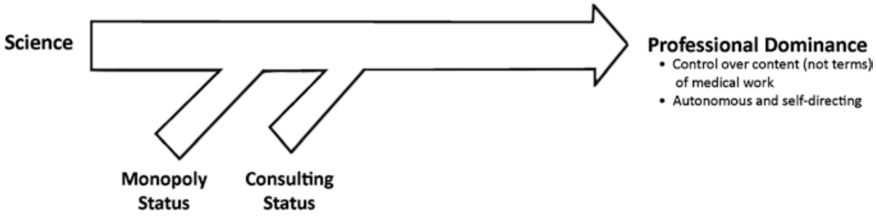

Fig. 9.2 Sociological theories of the medical profession, Phase II: Freidson's Model (1970a, b)

necessary to establish the profession of medicine, was missing in earlier theories. Specifically, only the recognition of how the larger political and cultural context had changed in the U.S. during the late nineteenth and early twentieth centuries could explain why the efforts of allopathic physicians succeeded in the early twentieth century and was accompanied by sovereignty (i.e., across-the-board acceptance, see Fig. 9.3). Starr, like Freidson, saw the public's suspension of skepticism, coupled with its willingness to defer to healing, as a matter of science. As an instrument of moral and political reform, science "was inseparable from the rise of status and power of professionals in new occupations and organizational hierarchies" (Starr 1982: 10).

Importantly, however, he documented that early attempts to gain exclusive licensing privilege by allopathic physicians had failed. It was not enough to have physicians organize and court state legislators; rather, a larger cultural shift had to occur to allow both powerful groups and the public to grant the profession its privileged status. The Progressive Era, which he calls America's Cultural Revolution, created a growing willingness to rely on the specialized skills of strangers and replaced the commonly-held skepticism surrounding "expertise" that had characterized earlier political and cultural eras in the U.S.

Rejecting earlier views that were more idealistic, optimistic, and positivist, Starr drew from the second wave of sociological (Freidson 1970b) and historical (Rosen 1983) theories but combined them with newer theories of states, markets, power, and authority. He did not see the success of the profession's claims for political support as inevitable, and he dismissed earlier notions that political pre- or proscriptions would "take hold" and translate directly into popular acceptance. Rather, a cultural change, inspired by the new industrial age, allowed for the growth of cultural authority and its conversion into the control of markets, organizations, and governmental policy. Cultural authority engendered trust, compelled obedience, and fostered legitimacy, thereby increasing public acceptance of and dependence on the scientific profession of medicine. Without this larger shift, and only in this context, did the American public become willing to embrace physicians as experts and institutionalize the scientific model as preeminent.

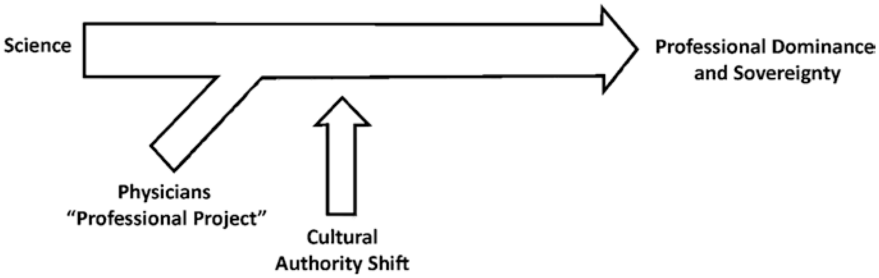

Fig. 9.3 Sociological theories of the medical profession, Phase III: Starr's Model (1982)

Standing Outside Mainstream Sociological Arguments: The Marxist Alternative

While scholars in the conflict tradition were aware of the developing line of sociological theories of the profession, they focused squarely on the notion that societal structures of inequality are inevitably mirrored in the medical system. Professions and institutions, by their very nature, align with or against the dominant forms of production; and more importantly, produce disparities in life chances by social class. This theme of the illness-generating effects of capitalism goes back before the writings of Carr-Saunders and Wilson (Friedrich Engles, Rudolph Virchow) and represents a continuous and alternative stream of theory and policy (Salvador Allende, Vincente Navarro; see Howard Waitzkin 2011). The work in this tradition placed medicine in the broader context of capitalism and imperialism, rejected the view that science and the coming of the industrial age translated inevitably into progress, and emphasized the economic interests that shaped the health care system. Studies documented how modern medicine was used to reward some and punish others, especially in Africa and Asia during the period of European colonialism (Lyons 1988). However, the language of the professions was never writ large in their work. Rather, they focused on the maldistribution of medical personnel and the illness-generating effects of capitalism (See Fig. 9.4). This may account for its relative absence in standard theoretical accounts of the rise of the profession of medicine.

Nevertheless, this theoretical approach brings neglected structural understandings to theories of the rise of the profession. For example, Navarro (1978, 1983, 1993) cast the primary objective of the long training in education not as necessity, but as a way to perpetuate social roles within privileged social classes. And, in *Medicine Under Capitalism* (1976), he argued for and presented data on the pervasive control that members of the corporate and upper middle classes exert on policy-making bodies of U.S. health care institutions. Berliner (1983, 1985) and others went further, arguing that the great philanthropists of the early industrial era recognized the potential benefits for their own class-based interests in funding the scientific-based medical profession. Their massive donations provided not only goodwill as they amassed their wealth at great fiscal and health cost to the working

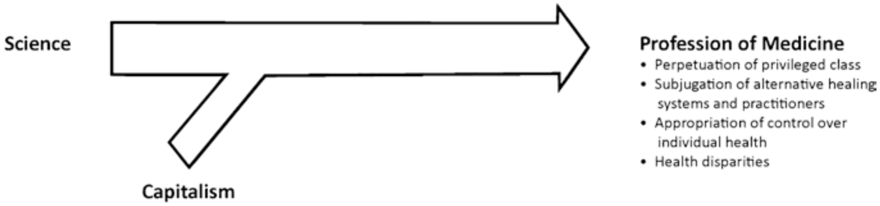

Fig. 9.4 Sociological theories of the medical profession: The Marxist Alternative

classes, but also put in place an ideology of disease and a rationale for treatment that was compatible with the logic of industrial capitalism.

But it was not until the work of E.R. Brown that a political economic story of the rise of the American medical profession was articulated. Celebrated by some, ignored by most, Brown (1979) documented the role of the private philanthropy of the capitalist "robber barons" in establishing the American medical profession in *Rockefeller Medicine Men*. He argued that the Flexner Report essentially served as a medical system blueprint for the "captains" of industry and their administrative "lieutenants" who would serve their vested interests. This was accomplished through donations made by their philanthropic foundations.

The Flexner Report 1910 was commissioned, funded and carried out by the Carnegie Foundation, whose interests surrounded education. Arguing that all proprietary medical schools were of exceedingly poor quality and should be closed, the Flexner Report prompted other philanthropies, most notably the Rockefeller Foundation, to fund the economic foundation of the modern medical care system. This included but was not limited to building university-based medical schools that embraced the same techno-scientific model that underlay industrial capitalism. Foundations provided the resources to set up the expensive laboratories and large, technologically equipped hospitals that scientific medicine required.

Philanthropists tied their donations to requirements that changed both the face of medicine and higher education. To receive funds, for example, universities were required to appoint physicians as "faculty," not an accepted or welcome practice at the time. By situating medical education in the university, the class-based profile of the modern physician was set. Practicing physicians who were female, working-class, from communities of color, or who were trained primarily through apprenticeship or attendance at proprietary medical schools were disenfranchised as they failed newly instated licensing exams based on the scientific model. Aspiring practitioners from other healing traditions or from lower social ranks, however defined, found their entry to university-based medical schools blocked by educational or financial requirements.

Comparing the U.S. and Great Britain, Hollingsworth (1986) showed how powerful class divisions played out as different nations solved the problem of financing their emerging modern systems of medicine. He looked not to scientific imperatives, but to "the social relations in which medical systems are embedded and the influence of power relationships on the structure of national medical systems" (1986: xiii). Ironically, he showed that the greater level of stratification within the early allopathic British medical profession (i.e., those affiliated with the prestigious voluntary hospitals vs. general practitioners) resulted in a weaker social movement by practitioners, a stronger working class voice, and a fiscal role for the state to assure access that was clearly absent in the U.S.

In sum, those in the political economic tradition saw the newly wealthy philanthropists as purposively using their resources to reinforce and legitimate the dark side of industrial capitalism, including deflecting issues of health, disease, and treatment away from larger social issues and the damaging effects of industrialization (e.g., see Arnove 1982; Berliner 1983; Hollingsworth 1986; Waitzkin 2011).

Unlike mainstream work on the rise of the profession of medicine, these accounts tend to cast physicians as either conspirators or puppets. Current work continues this discussion; for example, asking whether managed care pressures physicians to be "double agents," both protecting patients from the profit motive of for-profit health care while having to attend to its bottom line (e.g., Waitzkin 2000).

Phase IV: Synthesis Embedded with a Network Twist: Elaborating the Internal Mechanisms of Professional Change

Curiously, Starr explicitly rejected Marxist accounts of the rise of the profession (see Pescosolido and Martin 2004). However, professions do not "bring money to the table." As experts, they rely on their ability to persuade others of the value of their knowledge and services. By their very nature, they are dependent on economic resources that "society," whether individuals or organizations, are willing to provide. Aside from the Marxists, the sociological story of the profession of medicine minimizes the role of money, resulting in a "shock" that accompanied discussions of the health care crisis of the late 1980s. Neither the public, nor the profession itself, was prepared to shift the discourse and see issues of financial support take center stage in dealing with health, illness, and health care reform (Mechanic 1983).

As sociological theories moved from "ideal type" to "professional project" to "cultural shift," historians, sociologists of science, and critical sociologists came forward to document that the rise of the medical profession was linked to very limited empirical proof of scientific medicine's efficacy (McKeown 1979; McKinlay and McKinlay 1981) and to a simultaneous, often contentious struggle of both science and medicine for legitimacy (Gieryn 1999; Wailoo 2004). Laboratories, autopsies, and vaccinations were not welcomed nor accepted by the public. Debates and resistance were commonplace; utilization rates were low (Warner 1986). Physicians, as applied practitioners of little regard, were not embraced by scientists and, even within the ranks of aspiring physicians, there was skepticism about a blanket adoption of the scientific approach.

All sociological theories saw the middle class promulgating a strong belief in medical science, reforming medical education under the scientific paradigm, and working against practitioners, patients and patrons from other social classes to impose their views. But it was Brown (1979) who reminded us that homeopathy was the preferred medical sect of upper class physicians and patients. He documented how J.D. Rockefeller himself insisted that homeopathy as well as allopathy be supported by his donations, only to be overridden by middle class, philanthropic managers who came to control the Rockefeller Foundation.

Following on this, Jack K. Martin and I argued that unearthing the actual dynamic processes and interactions that created the conditions for the Flexner Report, modern medical education, the construction of medical infrastructure, and the public use of services was necessary (Pescosolido and Martin 2004).

Following Frenk and Duran-Arenas (1993), we saw professional dominance (monopoly) and sovereignty (consulting status) as two fundamentally different processes that did not flow in the same way as previous theories contended. A larger cultural shift, the Progressive Era, inspired the real actions of real people in the middle classes, and in turn, produced a much later and more gradual cultural shift among the broader public. The transfer of resources from the upper to the middle classes constrained the actions of individuals in all social classes.

Our premise was simple and two-fold: Social network ties among members of the middle classes created professional dominance under a fortuitous cultural context, and social network influence processes shaped how individuals in the community came to culturally construct, consider, and use treatment options. However, class actions did not favor upper class preferences nor did individuals in the community rapidly embrace the new medicine with the same enthusiasm as the middle class elites (see Fig. 9.5).

Constructing Professional Dominance. From the mid- to late nineteenth century an ideological shift, turning on the progress of science for the "betterment" of society, took place among the emerging middle classes. A middle class of managers grew as a result of the transition to industrial capitalism. The elite of this class formed a network of administrative leaders across formal social institutions (e.g., politics, education, law) that acted to mobilize resources (i.e., money, licensing laws, and curricular change) in support of the aspiring profession of scientific medicine.

Existing mainstream theories give more than a fair share of the credit to the concerted efforts of middle class physicians and politicians to establish the modern profession of medicine using science as the vector of differentiation. However, it took those physicians, in concert with the middle class administrators in philanthropic foundations and higher education to negotiate, cajole, coerce, and

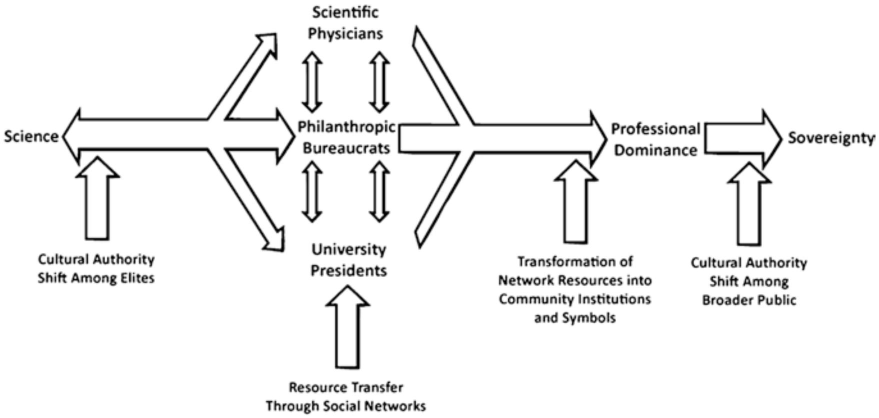

Fig. 9.5 Sociological theories of the medical profession, Phase IV: Pescosolido and Martin's Model (2004)

collaborate to underwrite the wholesale construction of a new medical marketplace in the U.S. Physicians engaged in a simultaneous struggle for dominance and sovereignty in line with other entrepreneurial projects of the rising middle class (e.g., the creation of the modern university; Hollingsworth 1986; Ludmerer 1985; Markowitz and Rosner 1973; Stone 1997).

Following the Marxists, we saw traditional explanations underplaying the role of the enormous transfer of resources from private philanthropy to the modern profession of medicine and the modern university (see also Stone 1984). American industrialists of this period endowed the profession generously, but their money was directed by the visions and efforts of the middle class managers of their foundations, university presidents, and newly configured hospital boards. These middle-class elites, particularly members of other aspiring professions, all shared the ethos of scientific progress solving social problems, whether in business, medicine, education, or the larger society. Together, they re-engineered society by reshaping societal arrangements and resources to benefit this model, including establishing the dominance of scientific medicine. In the U.S., unlike the U.K., the reconstruction of the medical marketplace was accomplished almost exclusively with private monies, setting up a private system that offered no social safety net to individuals in times of sickness, as the Marxists noted.

Cultural shifts and professional organization offer far more elegant accounts of the rise of scientific medicine than the crass details of how money drove the transformation of institutions and set the terms of medical care in the U.S. All theories agree on the importance of the early foundations' economic contributions, but they part on the motivation of the capitalists, dubbed the "pseudo-aristocracy" by some (e.g., Larrabee 1971: 228, 242). The influence of the foundations has been told as a story of either redemption (e.g., Starr 1982) or conspiracy (Berliner 1985). However, this story can be told with less effort, as the overlap of ideological views between industrial capitalism and the scientific model, as changes in philanthropy which saw middle class managers hijack resources to their own visions of "doing good," and as the frustration of the "robber barons" losing control of decision making in their own foundations.

The Marxists were right in seeing the deliberate and powerful influence of industrial capital; ironically, they conflated *ownership* and *control* of the means of production. With the wealth of the industrial capitalists, the managerial class held the authority to control where the charitable contributions went, changing the objective and symbolic conditions of healing. In doing so, they often subverted the wishes of the financial elites. They shaped an ideology based on their class position and activated their network ties to transfer enormous sums of money to produce the visible symbols of scientific medicine (e.g., new hospitals, ambulances, emergency rooms) which came to pervade the modern landscape of healing. They created the idea of medical schools attached to universities, against the will of most faculty; legitimated the scientific medical professor as a member of the faculty; and funded the building of the first great medical schools and hospitals in the U.S. In turn, these faculty trained the new breed of physicians and wrote the examinations that their students were well prepared to answer, but all others would fail.

In sum, this transformation resulted in what Sarfatti-Larson (1977) calls a monopoly in cognitive superiority. The middle class shared an ideological stance, believing they had the "right" answer for continued progress despite disagreement among the ranks of practicing physicians and the upper class elites (Rothstein 1972). Presidents of universities, foundation officers, and elite members of the scientific medical profession activated their network ties to the mutual benefit of modern institutions fashioned under the scientific model. The building of large, impressive scientific medical schools and their associated complexes, as well as the transformation of hospitals from centers of last resort to "modern temples of science," embodied the cultural authority of scientific medicine. Thus, professional dominance was both reflected and reified in a huge, built environment accompanied by public relations campaigns stressing the miracle of science (Stevens 1999) that emplaced the cultural authority of scientific medicine. Local philanthropic foundations throughout the country followed the lead of the most visible foundations in funding local scientific medical schools and in building new hospital and clinic facilities where the new allopathic physicians would hold appointments (Pescosolido and Martin 2004). This process of mimetic isomorphism (DiMaggio and Powell 1983) differed mostly in the details across the U.S. and dramatically diverged only where market conditions were extreme (e.g., see Starr 1982 on Kaiser-Permanente).

Understanding Public "Acceptance." The establishment of professional dominance dwarfed all competitors, eclipsing alternative sources of care. Most theories of the profession see the public as being "convinced," while Marxists see services as either denied or coerced (e.g., Waitzkin 1970). In reality, these theories paid little attention to what transpired among the majority of individuals in the community.

That is, theories of the rise of the profession of medicine share the absence of an explicit theory of how individuals use, or do not use, medical care services. Even Freidson's (1970a) lay referral system theory, emphasizing individuals' network structures and cultural content, did not connect markets to help-seeking. Nor did he bring this theory to bear in his theory of the medical profession. In the same work (Freidson 1970a), both sociological theories of patient and physician status and roles are explicated but remain as separate social processes. While sociologists and other social scientists contextualized how individuals respond to illness in terms of the context of their local lives, the first generation of utilization theories (i.e., how individuals use medical care) did not consider the larger market context of medical care. Similarly, theories of the professions did not weave together how the actions of individuals played into or against scientific medicine's professional project. Implicitly, mainstream sociological theories of the medical profession appear to reflect the importance of beliefs in health care decision-making (e.g., Rosenstock's 1966 Theory of Health Beliefs). In some way, fervor for the scientific approach was disseminated to and embraced by the public.

However, a consideration of, essentially, a second generation of theories on how individuals come to use the formal health care system brings a different version of the achievement of "consulting status" to light (see Pescosolido 1991). Whatever their ideological bent, these newer sociologically-based utilization theories emphasized how geographical and financial availability shape which "services" can be accessed, and how "choices" are made (e.g., Andersen 1968, 1995). In other words, the financial and social organization of medical systems looms large in individuals' use of services. Both what exists and what individuals perceive in terms of available services matter. Further, financial accessibility enables individuals to use some geographically available services. With the coming of third party payers (private insurance in the 1940s and public programs such as Medicare and Medicaid in the 1960s; see Quadagno 2004), the services of modern physicians were covered while those from most other providers were not. In these theories, the sole focus is on the use of modern physicians, hospitals, and clinics in the allopathic tradition.

Bringing this understanding of utilization to theories of the rise of the profession provides a missing link in understanding sovereignty. The social re-organization of medical care, engineered to achieve professional dominance, both preceded and produced the public "choices" for modern medical services (Pescosolido and Martin 2004). The shift in cultural authority from the working and lower classes that would give the profession its sovereignty would *follow from, but not cause,* the establishment of dominance. Freidson "consulting status" did not have to be "earned" through demonstrated success; individuals did not have to be "convinced;" and Starr's sovereignty was not a natural outcome of the larger cultural shift in the Progressive Era. Rather, the public use of modern medicine was constructed by actively redirecting resources that changed the calculus of individual decision-making for medical care. Under conditions of illness, shifting options for medical care, and theories that conceptualize individuals seeking a solution that is only "good enough" (Pescosolido 1992), sovereignty was subtly coerced, even if welcomed, by constraining the public's options. The role of the new institutions and practitioners overshadowed and, over time, changed public beliefs and values because they signaled the closing off, or at least limiting, of the pathways individuals could travel to "treatments."

Thus, a two-step process occurred in which physicians' monopoly was established through the efforts of middle-class elites, which in turn *guaranteed* an eventual, inevitable change among the general public. Dramatic institutional changes in the community ensured the general public's acceptance of scientific medicine in the later twentieth century. First, professional dominance dramatically altered the ideology and symbols of healing at the community level, ultimately leading to a shift in both objective and cognitive conditions. Second, these conditions shaped the public's use of the new scientific medical services under theories that conceptualized geographic and fiscal accessibility as crucial. Later developments in the U.S. (e.g., the widespread acceptance of private health insurance after World War II, the passage in 1965 of Medicaid and Medicare) reinforced the public's sole use of allopathic medicine by refusing reimbursement of practitioners of other systems. Thus, the public's use of health care represents a bargain struck between the offerings of providers of different healing systems and the preferences of individuals (Pescosolido 1992, 2006). No other medical tradition or "paraprofessional" in modern medicine, to use Freidson's term for other occupations in modern medicine, comes close to the "functional strength" or "structural superiority" (Lee 1982) of science-based medicine in the U.S., or for that matter, in any Western nation.

The power of individuals has been conceptualized only more recently as an active force, as social movements organize the resources and influence of specific groups (e.g., Brown 1995). Ironically, not all of these stand in opposition to the profession; rather, they demand more voice, access, and influence in contemporary medicine. Perhaps not as surprising, those movements that draw from the middle classes are more successful in leveraging philanthropic support and disseminating its influence throughout society (e.g., Epstein 1996 on HIV; Sulik 2010 on breast cancer).

Phase V: The Theoretical Shift from a Concern with the Rise of Professional Power to Its Demise

By the 1980s sociologists no longer concerned themselves with theories of the profession of medicine. Indeed, by 1989, there was a concern that medical sociologists had lost interest in the health care system and its practitioners as a whole (Mechanic 1989). Those who continued to focus on the profession turned their attention from understanding the rise of the profession to considerations of its "fall" from power. Specifically, sociologists targeted the three D's: deprofessionalization, decline, and distrust (Pescosolido 2006).

Deprofessionalization, in Marie Haug's (1976) view, represents a loss of prestige, power, and trust. It derives from rising levels of education among the citizenry and from increased reliance on technology and medical algorithms that have demystified medical care. Decline looks to external factors that erode support for the profession and to intrinsic factors related to physician supply and shrinking American Medical Association (AMA) membership (McKinlay and Marceau 2008). Earlier, McKinlay (1982) referred to proletarianization as the inevitable fate of physicians who, like all other workers in a capitalist society, would eventually be stripped of the control over their work through corporatization and bureaucratization. Lastly, distrust stems from the rapid privatization of medical care and the growth of managed care (Mechanic 1983). Distrust undermines expectations that medical institutions and providers will act in accordance with the interests of individuals, and calls into question physician credibility, allegiance to altruistic motives, efficacy in medical encounters, and ultimately, treatment outcomes (Pescosolido and Boyer 2001; see Wolinsky 1993 for a review).

Much of this discussion proceeded without empirical evidence but with statements about flagging public support and confidence. The evidence, however, was equivocal. In fact, a pair of analyses using the same data came to opposite conclusions. Both documented "erosion" since the percentage of Americans who have a "great deal" of confidence in medicine had dropped since the 1970 though not in a consistent fashion. These data from the General Social Survey also revealed a statistically significant rise in the percentage of Americans who report having "hardly any" confidence in medicine. But the interpretation differed. Whether the jump from about 5 to 13 % of the general public giving a "no confidence" vote is troublesome to the status of the profession of medicine, as Schlesinger (2002) argued, was not obvious to us given the absence of any viable alternative (Pescosolido et al. 2001).

Clearly, there has been a non-trivial disenchantment with medicine in the public eye. However, placed in larger cultural and organizational context, the fate of the profession appears to be not much more than a general concern with whether the glint of the modern industrial age has tarnished and the "American Century" is over (Pescosolido and Rubin 2000). Our further analysis of public beliefs in "physician authority" between 1976 and 1996 revealed that the increase in negative responses appeared to represent a shift from the "don't know" category, not a shift from positive to negative opinion (Pescosolido et al. 2001).

Arguably, then, the profession of medicine no longer has quite the luster that McKinlay and Marceau (2002) believed it had during "the golden age." From the beginning of the concern with professional power, Freidson (1970a) made two important points that seem to be lost in the "Three D's" debates. First, in no country, even the U.S., does medicine achieve a complete monopoly (e.g., chiropractic in the U.S. was never banned in all states). Second, to return to a point made earlier, it is control over the "content" of medical work (i.e., diagnosis, prescription, authority over ancillary professions) that is key to professional dominance, not control over the "terms" of medical work (i.e., the socio-cultural arrangements). As long as the profession is relatively free of technical evaluation and control by other occupations in the medical division of labor, intrusions that change the socioeconomic terms of modem medical work do not significantly change medicine's professional character. Of course, the distinction is not pristine. Utilization review, cost controls, enormous financial settlements for medical malpractice, and formularies that allow physicians to prescribe some drugs but not others, all bespeak a demise of the extensive powers once given to physicians, particularly in the United States. And, the profession of medicine was stunned as early as 1972 when Congress passed a law allowing Medicare to cover chiropractic services (Pescosolido 2006).

In the end, Freidson (1993) was "unimpressed" with contentions and evidence on the fall of the profession of medicine. Similarly, Mechanic (1991) suggested that even with less autonomy, contemporary societies still support the dominant medical paradigm, the centerstone of the profession's status and roles. However, in this context, both Freidson and Mechanic supported the new theoretical work of sociologists who shifted their focus from issues of rise and fall to "maintenance."

Phase VI: Re-embedding the Medical Profession in Society in the Face of Crisis—Systems Thinking Returns

In 1983, Gieryn set the stage for understanding professional dynamics following ascent to preeminence. Focusing on science, not medicine, he argued that there will always be skirmishes at the borders of professional turf. Professional boundaries are "drawn and redrawn in flexible, historically changing and sometimes ambiguous ways" (Gieryn 1983: 781). Theories of the profession of medicine followed suit, laying out the full complement of organizations, actors, and groups that hold the potential to support, or, increasingly, encroach on its boundaries. Thus, ironically like Parsons' (1951) original theory, the medical profession is embedded in the whole of society's institutions.

Abbott (1988), in *The Systems of Professions*, focuses on the dynamics of professions "growing, splitting, joining, adapting, and dying" (p. xiii; see Fig. 9.6). Because the professions make up interdependent systems, jurisdictional disputes become central, requiring the elaboration of the professional landscape. Adjacent professions (Halpern 1992), specialties within medicine (e.g., primary care physicians; McKinlay and Marceau 2008; Timmermans 2008), or institutional supports (insurance companies, private philanthropies, the government; McKinlay and Marceau 2002) require continual monitoring and defense of jurisdictional boundaries. How to maintain the "medical professionalism" of physicians (Mechanic 2008) has replaced a concern for the status of the profession as a whole, reflected even in medical school curriculum (Castellani and Hafferty 2006).

Similarly, the theory of countervailing powers "locates professions within a field of institutional and cultural forces and parties" (Hafferty and Light 1995; Light 2000; Mechanic 1991; Timmermans and Oh 2010). This explicit focus on institutional pillars suggests that the relative strength of the profession vis-à-vis other sources of fiscal and cognitive support has produced a weakened, but not less dominant, profession. On a larger scale, others theorize that the underlying, relative power in medicine has shifted from a logic of professions to a logic of institutions in controlling the terms of medical work (Quadagno 2004; Scott et al. 2000). Some segments of the profession aspire to be free of commercial and institutional concerns, while others see direct ownership as the only protection from outside incursions. This reflects and reinforces larger cultural change. The resulting tensions, both within and at the periphery of medicine's jurisdictions, hold the potential to reformulate the terms of professional autonomy, dominance, and sovereignty. Private, unfettered, fiscal support for the profession of medicine in the U.S. has been replaced by a clear managerial perspective from private insurance to government programs that now cover the bulk of medical costs (Pescosolido 2006).

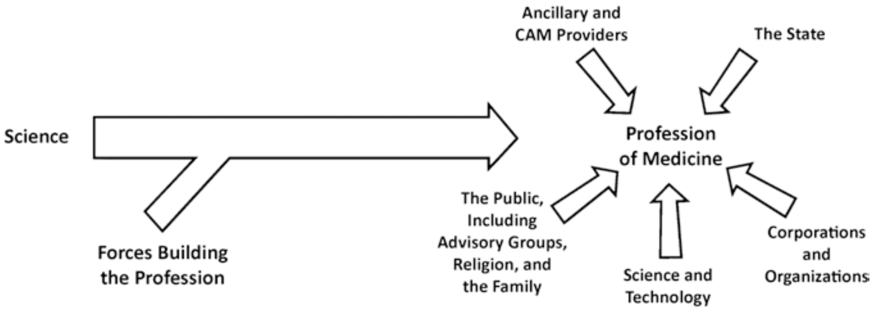

Fig. 9.6 Sociological theories of the medical profession, Phase V: Systems Approaches

Conclusion

This review of sociological theories of the profession of medicine reveals theories mirroring both the growing sophistication of sociology and the growing complexity of contemporary society. In the end, whether the medical profession, as we know it, stands or falls is inextricably tied to dominant social forms and processes, including the class structure that Waitzkin (2011) and others continue to bring to our attention. In "The Continued Social Transformation of the Medical Profession," Timmermans and Oh (2010) return to concerns about the role of money in professional status. Reviewing "tensions" and accepting the Phase V conceptualization of the medical profession as "one stakeholder among many stakeholders vying for market share and power in the health care field" (2010: s94), they conclude that the profession is resilient, continuing to adapt and change at the margins.

Our voice, as sociologists, in understanding jurisdictional boundaries and skirmishes involving the profession of medicine is critical, but not central in current debates. This is problematic for the discipline, the subfield, and for social change. Without continued sociological attention melding mainstream sociological theory and substantive expertise in medical sociology, our own understanding of society, the profession of medicine, and the fate of individuals' health and health care will be impoverished. Now more than ever, our theorizing has to be reenergized, new data need to be collected, and those data have to be interpreted in larger context. The debates about the future of primary care that McKinlay and Marceau (2008) and Timmermans (2008) began, the dialogue on expropriation and transformation of complementary and alternative medicine (CAM) that Wolpe (1985) initiated, and the fate of the profession in light of larger societal changes represent challenges to sociological theory.

Every society fashions its own medical social contract. Even if we experience a shift of the magnitude that parallels the one that accompanied the industrial age, for better or worse, medicine and its practitioners will be reconstituted in light of social resources, cultural context, and social cleavages. Yet, the critical ingredients will be the same, in the abstract, as we have seen here—cultural landscape, professional solidarity (or not, as AMA membership continues to slide), competing practitioners inside and outside of the scientific medical paradigm, and ownership and control of resources that will be shaped by and through networks of power. What is crucial, and what will vary, will be the specific nature of societal negotiations that constructs a medical marketplace. Further, the decisions will remain the same: Will health care be a right or a privilege? Who will "own" and "control" the health care system? In particular, how much of a role will the State play in granting or assuring professional dominance of the full complement of healing practitioners? If the boundaries of the nation state become more porous, or less salient, as Giddens (1990) suggests, what legal or political institution will step in its place? The answers to these questions are vital in shaping the profession, the nature of medical work, and the health of populations.

Parsons' (1951) initial statement stands: All societies create institutional roles for patients and providers. For sociology to understand social institutions, the life chances of individuals in them, and the intimate connections between the two, health and health care continue to present an essential window into social life. Theorizing and bringing empirical examination to bear to grasp the structure, culture, and impact of these roles remains a central sociological task.

References

Abbott, A. D. (1988). *The system of professions: An essay on the division of expert labor*. Chicago: University of Chicago Press.

Andersen, R. (1968). *A behavioral model of families' use of health services* (Research Series No. 27). Chicago: Center for Administration Studies, University of Chicago.

Andersen, R. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior, 36*, 1–10.

Arnove, R. F. (Ed.). (1982). *Philanthropy and cultural imperialism: The foundations at home and abroad*. Bloomington, IN: Indiana University Press.

Astin, J. A., Marie, A., Pelletier, K. R., Hansen, E., & Haskell, W. L. (1998). A review of the incorporation of complementary and alternative medicine by mainstream physicians. *Archives of Internal Medicine, 158*, 2303–2310.

Berlant, J. (1975). *Profession and monopoly: A study of medicine in the United States and Great Britain*. Berkeley, CA: University of California Press.

Berliner, H. (1983). Starr wars. *International Journal of Health Services, 13*, 671–675.

Berliner, H. (1985). *A system of scientific medicine: Philanthropic foundations in the Flexner era*. New York: Tavistock.

Brown, E. R. (1979). *Rockefeller medicine men: Medicine and capitalism in America*. Berkeley, CA: University of California Press.

Brown, P. (1995). Naming and framing: The social construction of diagnosis and illness. *Journal of Health and Social Behavior, 36*(Extra Issue), 34–52.

Carr-Saunders, A. M., & Wilson, P. A. (1933). *The professions*. London: Cass.

Castellani, B., & Hafferty, F. W. (2006). The complexities of professionalism: A preliminary investigation. In D. Wear & J. Aultman (Eds.), *Professionalism in medicine: Critical perspectives* (pp. 3–23). New York: Kluwer Academic Publishers.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*, 147–160.

Epstein, S. (1996). *Impure science: AIDS, activism, and the politics of knowledge*. San Diego, CA: University of California Press.

Freidson, E. (1993). How dominant are the professions? In F. W. Hafferty & J. B. McKinlay (Eds.), *The changing medical profession: An international perspective* (pp. 54–66). New York: Oxford University Press.

Freidson, E. (1970a). *Profession of medicine: A study of the sociology of applied knowledge*. New York: Dodd, Mead, and Co.

Freidson, E. (1970b). *Professional dominance: The social structure of medical care*. New York: Atherton Press.

Frenk, J., & Duran-Arenas, L. (1993). The medical profession and the state. In F. W. Hafferty & J. B. McKinlay (Eds.), *The changing medical profession: An international perspective* (pp. 25–42). New York: Oxford University Press.

Flexner, Abraham (1910). "Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching." New York, NY: The Carnegie Foundation.

Giddens, A. (1990). *The consequences of modernity*. Stanford, CA: Stanford University Press.

Gieryn, T. F. (1983). Boundary-work and the demarcation of science from non-science: Strains and interests in professional ideologies of scientists. *American Sociological Review, 48*, 781–795.

Gieryn, T. (1999). *Cultural boundaries of science*. Chicago: University of Chicago Press.

Hafferty, F. W., & Light, D. W. (1995). Professional dynamics and the changing nature of medical work. *Journal of Health and Social Behavior, 36*, 132–153.

Haller, J. S. (1981). *American medicine in transition, 1840–1910*. Champaign, IL: University of Illinois Press.

Halpern, S. A. (1992). Dynamics of professional control: Internal coalitions and cross-professional boundaries. *American Journal of Sociology, 97*, 994–1021.

Haug, M. R. (1976). The erosion of professional authority: A cross-cultural inquiry in the case of the physician. *Milbank Memorial Fund Quarterly, 54*, 83–106.

Hollingsworth, J. R. (1986). *A political economy of medicine: Great Britain and The United States*. Baltimore: Johns Hopkins University Press.

Klein, J. (2004). Open moments and surprise endings: Historical agency and the workings of narrative in 'The Social Transformation of American Medicine'. *Journal of Health Politics, Policy and Law, 29*, 621–642.

Larrabee, E. (1971). *The benevolent and necessary institution: The New York Hospital, 1771–1971*. Garden City, NY: Doubleday.

Lee, R. (1982). Comparative studies of health care systems. *Social Science and Medicine, 16*, 629–642.

Light, D. W. (2000). The medical profession and organizational change: From professional dominance to countervailing power. In C. Bird, P. Conrad, & A. M. Fremont (Eds.), *Handbook of medical sociology* (pp. 201–216). Upper Saddle River, NJ: Prentice Hall.

Lindemann, M. (2010). *Medicne and society in early modern Europe*. Cambridge: Cambridge University Press.

Ludmerer, K. M. (1985). *Learning to heal: The development of American Medical Education*. New York: Basic Books, Inc.

Lyons, M. (1988). Sleeping sickness, Colonial medicine, and imperialism: Some connections in the Belgian Congo. In R. MacLeod & M. Lewis (Eds.), *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of Western Expansion* (pp. 245–256). London: Routledge.

Markowitz, G. E., & Rosner, D. K. (1973). Doctors in crisis: A study of the use of medical education reform to establish modern professional elitism in medicine. *American Quarterly, 25*, 83–107.

McKeown, T. (1979). *The role of medicine: Dream, mirage, or nemesis?*. Princeton, NJ: Princeton University Press.

McKinlay, J. B. (1982). Toward the proletarianization of physicians. In C. Derber (Ed.) *Professionals as workers: Mental labor in advanced capitalism* (pp. 37–62). Boston, MA: G.K. Hall.

McKinlay, J. B., & Marceau, L. (2008). When there is no doctor: Reasons for the disappearance of primary care physicians in the U.S. during the Early 21st century. *Social Science and Medicine, 67*, 1481–1491.

McKinlay, J. B., & McKinlay, S. M. (1981). Medical measures and the decline of mortality. In P. Conrad & R. Kern (Eds.), *The sociology of health and illness: Critical perspectives* (pp. 12–30). New York: St. Martin's Press.

McKinlay, J., & Marceau, L. (2002). The end of the golden age of doctoring. *International Journal of Health Services, 32*, 379–416.

Mechanic, D. (1983). Review of "The Social Transformation of American Medicine". *Perspectives in Biology and Medicine, 27*, 163–167.

Mechanic, D. (1989). Medical sociology: Some tensions among theory, method, and substance. *Journal of Health and Social Behavior, 30*, 147–160.

Mechanic, D. (1991). Sources of countervailing power in medicine. *Journal of Health Politics, Policy and Law, 16*, 485–498.

Mechanic, D. (2008). *The truth about health care: Why reform is not working in America*. New Brunswick, NJ: Rutgers University Press.

Navarro, V. (1976). *Medicine under capitalism*. New York: Prodist.

Navarro, V. (1978). *Class struggle, the state, and medicine: An historical and contemporary analysis of the medical sector in Great Britain.* London: Watson Publishers International.

Navarro, V. (1983). *Health and work under capitalism: An international perspective*: New York: Baywood Publishing Company.

Navarro, V. (1993). Health services research: What is it? *International Journal of Health Services, 23*, 1–13.

Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Science, 325*, 419–422.

Parsons, T. (1951). *The social system: The major exposition of the author's conceptual scheme for the analysis of the dynamics of the social system*. New York, NY: Free Press.

Pernick, M. S. (1987). *A calculus of suffering: Pain, professionalism and anesthesia in nineteenth-century America*. New York: Columbia University Press.

Pescosolido, B. A., & Boyer, C. A. (2001). The American Health Care System: Entering the 21st century with high risks, major challenges and great opportunities. In W. C. Cockerham (Ed.), *The Blackwell companion to medical sociology* (pp. 180–198). Oxford: Wiley-Blackwell.

Pescosolido, B. A. (1991). Illness careers and network ties: A conceptual model of utilization and compliance. In G. L. Albrecht & J. A. Levy (Eds.), *Advances in Medical Sociology* (pp. 161–184). CT: JAI Press.

Pescosolido, B. A. (1992). Beyond rational choice: The social dynamics of how people seek help. *American Journal of Sociology, 97*, 1096–1138.

Pescosolido, B. A. (2006). Professional dominance and the limits of erosion. *Society, 43*(6), 21–29.

Pescosolido, B. A., & Martin, J. K. (2004). Cultural authority and the sovereignty of American Medicine: The role of networks, class and community. *Journal of Health Politics, Policy and Law, 29*, 735–756.

Pescosolido, B. A., & Rubin, B. A. (2000). The web of group affiliations revisited: Social life, postmodernism, and sociology. *American Sociological Review, 65*, 52–76.

Pescosolido, B. A., Tuch, S. A., & Martin, J. K. (2001). The profession of medicine and the public: Examining Americans' changing confidence in physician authority from the beginning of the "health care crisis" to the era of health care reform. *Journal of Health and Social Behavior, 42*, 1–16.

Porter, R. (2001). *The Cambridge illustrated history of medicine*. Cambridge: Cambridge University Press.

Quadagno, J. (2004). Why the United States has no national health insurance: Stakeholder mobilization against the welfare state, 1945–1996. *Journal of Health and Social Behavior, 45*(Supplement 1), 25–44.

Rosen, G. (1983). *The structure of American Medical Practice 1875–1941*. Philadelphia: University of Pennsylvania Press.

Rosenberg, C. E. (1987). *The care of strangers: The rise of America's hospital system*. New York: Basic Books.

Rosenstock, I. M. (1966). Why people use health services. *Milbank Memorial Fund Quarterly, 44*, 94–106.

Rothstein, W. G. (1972). *American physicians in the nineteenth century: From sects to science*. Baltimore, MD: Johns Hopkins University Press.

Sarfatti-Larson, M. (1977). *The rise of professionalism*. Berkeley, CA: University of California Press.

Schlesinger, M. (2002). A loss of faith: The sources of reduced political legitimacy for the American medical profession. *Millbank Quarterly, 80*(2), 185–235.

Richard Scott, W., Ruef, M., Mendel, P. J., & Caronna, C. A. (Eds.). (2000). *Professional dominance to managed care*. Chicago, IL: University of Chicago Press.

Starr, P. (1982). *The social transformation of American medicine: The rise of a sovereign profession and the making of a vast industry*. New York, NY: Basic Books.

Stevens, R. (1999). *In sickness and in wealth: American hospitals in the twentieth century*. Baltimore, MD: Johns Hopkins University Press.

Stone, D. A. (1984). *The disabled state*. Philadelphia, PA: Temple University Press.

Stone, D. A. (1997). The doctor as businessman: The changing politics of a cultural icon. *Journal of Health Politics, Policy and Law, 22*, 533–556.

Sulik, G. A. (2010). *Pink ribbon blues: How breast cancer culture undermines women's health*. New York: Oxford University Press.

Timmermans, S. (2008). Oh look, there is a doctor after all: About the resilience of medical professions. *Social Science and Medicine, 67*, 1481–1491.

Timmermans, S., & Oh, H. (2010). The continued social transformation of the medical profession. *Journal of Health and Social Behavior, 51*(Supplement), S94–S106.

Turnbull, P. C. B., & Shadomy, S. V. (2011). From ancient times to the 19th century. In N. H. Bergman (Ed.), *Bacillus anthracis and anthrax* (pp. 1–16). New York: Wiley-Blackwell.

Wailoo, K. (2004). Sovereignty and science: Revisiting the role of science in the construction and erosion of medical dominance. *Journal of Health Politics, Policy and Law, 29*, 643–659.

Waitzkin, H. (1970). Expansion of medical institutions into urban residential areas. *New England Journal of Medicine, 282*, 1003–1007.

Waitzkin, H. (2000). Changing patient-physician relationships in the changing health-policy environment. In C. E. Bird, P. Conrad, & A. M. Fremont (Eds.), *Handbook of medical sociology* (pp. 271–283). Upper Saddle River, NJ: Prentice Hall.

Waitzkin, H. (2011). *Medicine and public health at the end of empire*. Boulder, CO: Paradigm Publishers.

Walsh, J. J. (1907). *Makers of modern medicine*. New York: Fordham University Press.

Warner, J. H. (1986). *The therapeutic perspective: medical practice, knowledge and identity in America 1820–1885*. Boston: Harvard University Press.

Wolinsky, F. D. (1993). The professional dominance, deprofessionalization, proletarianization, and corporatization perspectives: An overview and synthesis. In F. W. Hafferty & J. B. McKinlay (Eds.), *The changing medical profession: An international perspective* (pp. 11–24). New York: Oxford University Press.

Wolpe, P. R. (1985). The maintenance of professional authority: Acupuncture and the American physician. *Social Problems, 32*, 409–424.

Chapter 10
Medicalization: Changing Contours, Characteristics, and Contexts

Peter Conrad

Medicalization has become a central analytical theme in medical sociology, a topic in medical sociology courses and the subject of hundreds if not thousands of articles (Conrad 2007; Ballard and Elston 2005; Clarke et al. 2010). Other scholars, including historians (Nye 2003), anthropologists (Lock 2001, Press 2006), medical and public health researchers (Metzl and Herzig 2007; Maloney 2011; Lantz et al. 2007), economists (Thorpe and Philwaw 2012), bioethicists (Parens 2011), and even literary scholars (Lane 2007) have also examined medicalization. Medicalization has been the subject of newspaper and magazine commentaries (e.g. Welch 2011) and discussion at President's Council on Bioethics (2003). It seems clear that medicalization has become a topic of interest beyond sociology. Within medical sociology it is a concept that has moved from the periphery of intellectual interest in the 1970s to a central area of interest in the twenty-first century.

It is difficult to pinpoint the beginning of the sociological interest in medicalization. The first sociologists to name medicalization were Pitts (1968) with his encyclopedia article on the medicalization of deviant behavior and Irving Kenneth Zola, with his now classic article on "Medicine as an Institution of Social Control" (1972). It seems clear that scholarly precursors in and out of sociology also contributed to the interest and understanding of medicalization. The work of psychiatric critic Thomas Szasz on the myth of mental illness and psychiatry as an institution of social control (1960, 1970) was widely read and cited by sociologists, as was the work of Illich (1975), whose concept "social iatrogenesis" paralleled medicalization. Foucault's brilliant and innovative history of psychiatry was also fundamentally an examination of the medicalization of deviant behavior called madness (Foucault 1965). Within sociology, the roots can be traced to

P. Conrad (✉)
Brandeis University, Massachusetts 02454, USA
e-mail: conrad@brandeis.edu

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_10,

Parsons' (1951) differentiation between sickness and crime as two forms of deviance that must be managed by society. Other important predecessors include Goffman (1961) on the moral career of the mental patient and the role of the medical model, Gusfield (1967) on the "moral passage" of social problems, and Freidson (1970) on the expanding jurisdiction of the medical profession, all of whom implicitly examined medicalization without using the term. Zola was probably the first to argue that medicalization was a process occurring beyond psychiatry (where it was recognized if not named) to the whole enterprise of medicine. In this way Zola paralleled Illich in seeing medicalization as a widespread social phenomenon of critical concern. (This is not surprising since Zola and Illich collaborated on some work in the early 1970s, e.g. Illich et al. 2000).

Most of the early sociological writings on medicalization focused on deviant behavior. By the time I began research on hyperactive children (now called attention deficit hyperactivity disorder or ADHD) and the medicalization of deviance, these building blocks, plus the dominance of "labeling theory" of deviance, were already in place. My dissertation research on hyperactivity was one of the first case studies of medicalization (Conrad 1975, 1976). Upon completing this study I felt I knew a lot about hyperactivity as a case but not enough about medicalization as a social phenomenon. In the late 1970s Joseph Schneider and I set out to look at the historical roots of the medicalization of deviance and in 1980 published a book that examined five cases (mental illness, alcoholism, opiate addiction, homosexuality, and children's deviance) and used these to better understand the origins and consequences of medicalization (Conrad and Schneider 1980a, b). Following that research, I did not write about medicalization until 1992 (Conrad and Schneider 1992; Conrad 1992). Because medicalization was changing so much, beginning in the 1990s, I again became interested in medicalization and turned my research attention to the topic and how it was changing (e.g. Conrad and Leiter 2004; Conrad 2005; Conrad 2007).

In this chapter, rather than reviewing the development of the sociological study of medicalization in detail, I want to clarify some issues that have emerged in the development of what some have called "medicalization theory" but I prefer to see as "medicalization studies." In some instances I will refer to the work of others and in others I will take the opportunity to speculate on points where there is little research, hoping to stimulate further work and discussion.

What Constitutes Medicalization?

While there may be numerous definitions of medicalization, in its simplest form it means "to make medical." A more formal definition sees medicalization as the process by which previously nonmedical problems become defined and treated as medical problems, usually as diseases or disorders. The emphasis in this perspective is on "process" and "definition."

In my view, medicalization is distinguished by several characteristics. (1) The *definitional* issue is central to medicalization; that is, how a problem is defined is key to what is done about it. While a medicalized condition is usually defined by physicians or medical personnel, this is not necessary. (2) Medicalization can be seen as representing a range of definitions, with some problems totally medicalized and others just barely medicalized. This suggests *degrees* of medicalization: for example, some problems are virtually completely medicalized (e.g., schizophrenia, epilepsy) where others that are mostly medicalized (e.g. ADHD) with others that hardly medicalized (e.g., internet addiction, sexual addiction), with still others contested or somewhere in between (e.g., obesity, opiate addiction). A recent paper has called this "institutional layering", where multiple institutions share control (Medina and McCraine 2011). In short, medicalization is more of a continuum than a binary either/or distinction.

(3) Medicalized categories are *elastic* and can expand or contract. For example, ADHD was for many years seen as a disorder of children but is now seen as a lifespan disorder, including adult ADHD; and, Post-traumatic Stress Disorder (PTSD) emerged in the 1970s as a diagnostic category depicting psychic troubles of Vietnam vets and has since expanded to include survivors of violence, sexual abuse, or natural disasters. Now it can even be applied to witnesses to violence or disaster. On the other hand, hysteria, which was a common medical category in the late nineteenth century, has shrunk and almost disappeared as a diagnosis. (4) Physician involvement in medicalization is variable. With the medicalization of alcoholism, physicians were minimally involved; rather, the emergence of Alcoholics Anonymous was central to this process. Consumers can promote medicalization as well, requesting or promoting medical definitions and treatments for problems. With many other examples, however, some direct medical involvement is key. (5) Medicalization is *bi-directional*; that is, there can be medicalization as well as demedicalization. The most common example of demedicalization has been homosexuality, which, due to the 1974 of the American Psychiatric Association and subsequent changes, became "officially" demedicalized. There is no question, however, that there has been much more medicalization than demedicalization in the past four decades.

What type of conditions and problems get medicalized? One could make a long list of medicalized conditions, but Davis (2010), building on Conrad (1992), conceptualizes four different kinds of problems that have been medicalized. The first are deviant behaviors such as ADHD, alcoholism, addictions of various sorts, mental illness, eating disorders, and such. These behaviors are not inherently deviant, but are defined as deviant by society and societal norms. The second are "natural life events" such as childbirth, menstruation, menopause and andropause, aspects of aging such as baldness, and even death and dying. These conditions are "natural" in the sense they are not ipso facto medical pathology and often will occur, like menopause, in anyone who lives long enough to experience it. The third kind are "problems in everyday living," such as anxiety, normal sadness, erectile dysfunction, lack of libido, shyness, bad temper, overweight, difficulty becoming pregnant, and the like. Most of these problems were long considered common parts of life that, while sometimes problematic, were tolerated or managed. These conditions have now become medical diagnoses, often with treatments—especially of the pharmaceutical nature. Finally, there are "enhancements in healthy people", which are biomedical interventions that are meant to improve an individual's life condition or performance. These include various forms of cosmetic surgery, cognitive and performance enhancements, and potentially genetic and biogenic enhancements. This topic will be discussed more fully below. While such a conceptualization is useful for seeing the breadth and types of conditions that have been medicalized, it is not comprehensive. For example, it does not include medialized risk, a growing category, which will be discussed below.

I want to add two final comments on the range of medicalization. There is no question that some conditions have been long defined as problems and in our modern age become medical problems. For example, difficulty in becoming pregnant has been long defined as a human problem and those affected sought help of some kind. One only need know the "fertility objects" that are readily found in any anthropological museum to recognize the ubiquity of the problem. However, since the invention of in vitro fertilization (IVF) in 1978, infertility has been increasingly medicalized in western society and IVF treatments are now common practice. On the other hand, occasionally we have a condition or behavior that could fit the criteria of medicalization but has not been medicalized. Cigarette smoking has been deviantized and deemed a public health issue in the past four decades (with various restrictions and a subsequent reduction in smoking) but cigarette smoking has not become medicalized. Cigarette smoking is surely an addiction, but when we conceive of the "problem" we don't see it as an illness or disability, while other addictions like alcoholism, drug addiction and gambling addiction have, to different degrees, been medicalized. It is an interesting conundrum in a society where medicalization is so that tobacco smoking has not been medicalized.

Some Common Misunderstandings About Medicalization

In this section I will discuss a few common misunderstandings and misconceptions about medicalization.

Some researchers get side-tracked about whether medicalized problems are "really" diseases or whether they are socially invented categories. When I speak about ADHD, one of the most common questions I get is, "well, is ADHD really a disorder or not?" The same might be asked about fibromyalgia, sexual addiction, PTSD, or obesity. My answer to these kinds of questions is that it is not a social scientist's job to adjudicate whether this or that condition or behavior is a "real" disease or disorder, but rather s/he should ask how this problem became defined as a medical disorder and with what consequences? Social scientists should remain agnostic about the "real" disease question not only because it is beyond our expertise but *because* what is considered "real" can change as the definition of the condition or the social context changes.

A common misconception is that medicalization automatically means overmedicalization. This is simply not the case. While considerable research on medicalization does suggest that potential overmedicalization is an issue to be considered, medicalization studies focus on the "process" of medicalization and are not necessarily driven by concerns of overmedicalization. Sociologists study medicalization just like they study other social processes, such as industrialization, secularization, or urbanization, focusing on the origins and consequences of the phenomena. It is likely in some cases there has been an overmedicalization of some problems, while in others perhaps undermedicalization of a certain problem may be the case. Either way, it assumes there is a correct amount of medicalization on the one hand or that there is no medicalization that is correct on the other hand. Both of these are normative issues that are tangential to the main sociological focus, the process and consequences of medicalization.

Related to the overmedicalization misconception, occasionally critics will use the term medicalization as an epithet or pejorative, with the assumption that medicalization is by its nature a "bad" thing. But as I have emphasized, medicalization is a not a normative process, i.e. in itself neither bad nor good. Historically, for instance, there are many examples of beneficial medicalization, such as epilepsy and, in important ways, childbirth. It is hard to imagine that most people would prefer to return to the era when epilepsy was seen as possession or a "curse," a sign of being bewitched and a justification for institutionalization; nor would we want to revisit a childbirth era in which maternal mortality was common and infant death was a regular birth outcome. That is not to say that feminists and others have not importantly analyzed some of the consequences of what might be called the unreflective and extreme medicalization of modern childbirth. I believe that unpacking the social consequences of medicalization *is* a central issue for sociologists to pursue. This is not to say I don't see some serious social consequences to medicalization, as reviewed in the "troubles" section below.

Medicalization is still sometimes equated with "medical imperialism" (Illich 1975) or 'more recently' pharmaceutical imperialism or disease mongering (Moynihan et al. 2002). Each of these may capture a piece of medicalization but they suffer from the fallacy of single cause. With imperialism it assumes doctors or the medical profession are the major players behind the medicalization of various conditions, with a goal of colonizing problems and increasing medical jurisdiction or social control. With "disease mongering," the focus is typically on the pharmaceutical industry as the force behind medicalization, as drug companies seek to expand the markets for their products by creating new medical categories (Moynihan and Cassels 2005). While in specific cases there is some truth to this, such as Paxil and Social Anxiety Disorder (Lane 2007), even in such a case, calling it disease mongering de-emphasizes the important role of consumers, physicians, the particular context, and so forth. Thus I advise spurning both of these terms and examining medicalization in its broader context. Davis (2006) argues that we should limit medicalization to only what physicians do, that this is the fundamental process of medicalizing. I see this as a too constrained and narrow view of medicalizaiton, especially as the role of physicians in the medical system is changing.

I should add, with the term "biomedicalizaiton" (Clarke et al. 2003), I believe the lens is too wide and the specifics of the process of medicalization become lost in the very large picture. I will say more about biomedicalization later.

Sometimes scholars use the term medicalization rather descriptively, to mean that medical conceptions, personnel or ideas come to dominate a certain domain. This uses the concept medicalization in a different way than I and others have used it. In my view, medicalization focuses on the definition of a problem and involves the creation, promotion, or the implementation of medical categories (usually diagnoses) to that problem. Thus, books with titles like *Medicalized Motherhood* (Litt 2000) and *Babies for the Nation: The Medicalization of Motherhood in Quebec* (Baillargeon 2009) do not mean that motherhood has become a disease or disorder, but rather that doctors have become the experts on mothering as a medical discourse of advice. Similarly, *The Medicalization of Cyberspace* (Miah and Rich 2008) examines how the Internet has become a vehicle for medical communication, information and patient interaction, not that cyberspace has become a medicalized problem. A parallel use has occurred in anthropology, when medicalization is used to mean more medical involvement or concern, as in the article "The Medicalization of Anthropology: A Critical Perspective on the Critical-Clinical Debate" (Morgan 1990). Here the author means the emergence of increasing medical concerns by anthropologists. Nancy Schepfer-Hughes and Margaret Lock (1987) define medicalization as a reduction of social bodies to purely biological ones, and many anthropologists have written about the medicalization of childbirth and other human conditions (Davis-Floyd 2004). While no one has ownership of the correct definition of the word medicalization, our concept of medicalization aligns more closely with these latter two definitions than with the more descriptive uses of the term.

Finally, as the number of studies and statements concerning medicalization has grown over the years, some writers have begun to refer to "medicalization theory" (e.g., Williams and Calnan 1996; Clarke and Shim 2011). While there are certainly theoretical aspects of medicalization, and there are clearly concepts and rigorous precepts (many of which are discussed in this chapter), I would hesitate to call it a theory. In the first place, it has not been consistently presented as a theory even by its purveyors; in fact, the vast majority of papers on medicalization seem to be cases studies or analyses of some aspects of the medicalization process. While many of medicalization's conceptualizations are replicable, especially when comparing cases, there has been very little direct testing of various propositions presented about medicalization. Similar to what was called "labeling theory" of deviance, medicalization is more of a conceptual framework with interconnected observations and ideas than a full-blown theory (cf., Becker 1973). To circumvent the demands and criticisms of a "theory", I prefer the humbler claim of interconnected "medicalization studies", that together give a picture of the process of medicalization, by focusing on the origins, content, conflicts, and consequences of medical definitions and treatments of human problems. The key to increasing knowledge about medicalization is to adopt the a priori definitions of research (i.e., what constitutes medicalization) and maintain a clear focus on process and outcomes. This allows the accumulating research and conceptualizations to contribute to a growing scholarly discourse, building and strengthening our understanding of medicalization, yet eschewing the strictures of a fully articulated theory.

Relating-Zations

Along with medicalization sociologists have adopted a number of other related terms that end with—zation: Pharmaceuticaliization, Geneticization, Healthization and Biomedicalization. While there is not space here to have a thorough discussion or present a comprehensive view of various scholars usage, I think it is useful to review these terms and distinguish how they relate to medicalization.

I introduced the term healthization in a review essay (Conrad 1992) to distinguish certain health and fitness activities from medicalization. I had been studying worksite wellness programs (Conrad 1987) and encountered depictions of these as the medicalization of fitness. But these health and fitness activities (including exercise, diet, stress reduction, smoking cessation, etc.), while being done to improve health, proposed behavioral and lifestyle causes for ill health, I tried to distinguish these activities. Medicalization proposes biomedical causes and interventions, healthization in contrast, proposes lifestyle and behavioral causes and interventions. One turns the moral into the medical, the other turns health into the moral (1992:223). For example, to promote meditation or yoga to reduce stress is not medicalization, but healthization. While I think the distinction between the two is real (e.g. healthization does not create new definitions of conditions as diagnoses), it seems to me a very minor tangent related to medicalization (Hislop and Arber 2003). And, I must confess, over the years I have found it to be an unfortunately awkward term.

There is abundant evidence that the pharmaceutical industry has a more dominant and powerful impact on health affairs than it did four decades ago when the first studies of medicalization were published (Angell 2004). Williams et al. (2008), Abraham (2010a), and others have written about the pharmaceuticalization of medicine, meaning that pharmaceutical and drug interventions are increasing in usage for a range of human problems. Abraham (2010b) argues that the drivers are medicalization, pharmaceutical industry promotion and marketing, consumerism and regulator-state policy. He notes that advances in medical science (e.g. evidence based therapeutics) play only a small part in the increased pharmaceutical usage. In my own work, I have identified both biotechnology (mainly the drug industry) and consumerism as among the shifting engines of medicalization (Conrad 2005). While I agree that the pharmaceutical industry, in its search for expanding markets for its products, is an important driver of medicalization, I see pharmaceuticalization as a subset of medicalization and not a competing concept. Pharmaceuticalization is a strong force increasing medicalization. This is amplified by "direct to consumer advertising" on various media, which while only legal in the U.S. and New Zealand, has a much wider impact through other electronic media, especially the Internet (Conrad and Leiter 2008). Phamaceuticalization may be a significant factor in the globalization of medicalization.

Geneticization, defined first by Lippman (1991 p. 109) as the process by which "differences in individuals are reduced to their DNA codes, with most disorders, behaviors, and physiological variations, defined, at least in part, as genetic in origin." This also includes the application of genetic technologies "to diagnose, treat, and categorize conditions previously identified in other ways" (Lippman 1998, pp. 84–85). As Lippman (1991) notes, geneticization is rooted in medicalization but can also serve to expand medicalization. Several scholars (Press 2006; Nelkin and Lindee 1995; Conrad 2000) have warned of the potential of genetics to expand medicalization.

There is no doubt that genetization of problems can impact certain conditions, perhaps especially how genetics can put individuals at risk for an illness or disorder. But as Shostak et al. (2008) point out, it is not genetic findings or conceptions per se that can lead to medicalization, but the way the genetic information is interpreted. For example, it has been 20 years since the discovery of the so-called "gay gene" (Conrad and Markens 2001), but this had virtually no effect on the potential remedicalzation of homosexuality. It may have affected the public culture views of homosexual origin, with many believing that they were "born gay", but this has not resulted in any new medicalization. In fact, the geneticization of homosexuality could equally sustain claims that homosexuality is a normal human variation and thus would support a totally nonmedicalized definition. The point here is that genetic findings, whether they are for alcoholism, depression, or eating disorders, do not ipso facto lead to increased medicalization. It is the interpretation or meaning given to the genetic findings that make a difference, not merely the genetic claims by themselves.

Adele Clarke and her colleagues introduced the concept of "biomedicalization" in a 2003 article and followed it up with an edited book several years later (Clarke et al. 2010). Grounding their concept as much in Science and Technology Studies as in Sociology, Clarke and her associates present an ambitious analysis of what they see as a major transformation in medicine and medical care. They argue that medicalization is being transformed; they state that in about 1985 "dramatic changes in both the organization and practice of contemporary biomedicine, implemented largely through the implementation of technoscientific interventions" coalesced with an expanded phenomena which they call biomedicalization (Clarke et al. 2003, p. 161). By biomedicalization they mean "the increasingly complex, multi-sited, multi-directional processes of medicalization that today are being reconstituted through the emergent social forms and practices of a highly and increasingly technoscientific medicine" (Clarke et al. 2003, p. 162).

As I have noted elsewhere (Conrad 2005, 2007), I admire the scope and ambition of the Clarke et al. conceptualization, but I find that the authors paint biomedicalization with such a broad brush that medicalization gets lost. I recognize some of the same changes them observe, only I see they as "shifting engines" of medicalization, the ascendance of certain influences (consumers, drug companies, health insurance), and the change or diminution of others (doctors, the medical profession). Clarke and colleagues suggest the medicalization era was ending around 1990 giving way to the biomedicalization era *(see also Clarke et al. 2011). Here I disagree, as I believe that medicalization is actually more intensified and widespread in the twenty-first century than it was in the 1970. In short, my claim is that there is an intensification of medicalization occurring, not a transformation.

Expanding the Medicalization Purview

As noted earlier, the early research on medicalization was rooted in the study of deviant behavior, focusing on psychiatry as an agent of social control. Zola (1972), Freidson (1970), and others pointed to the broad swath of medicalization defined and controlled largely by the medical profession. In this wider view, the medicalization lens was aimed toward childbirth, sexuality, menopause, aging, and other conditions that were beyond deviant behavior.

Feminist scholars also began to use a medicalization framework to understand how doctors and modern culture were depicting women's bodies (Ehrenreich and English 1973; Martin 1987) and medicalized aspects of women's lives like menstruation (Figert 1995), menopause (Bell 1987), and childbirth (Wertz and Wertz 1989). Reissman (1983) wrote a benchmark paper about women and medicalization, depicting medicalization as a double-edged sword. While some saw medicalization as something male doctors did to women, others (e.g. Wertz and Wertz 1989) recognized that women often were actively implicated in their own medicalization. Riska (2003, 2011) has published several papers that examining the gender aspects of medicalization, highlighting how many more aspects of women's bodies are medicalized, yet at the same time recognizing that in recent years men's bodies seem to be increasingly medicalized (e.g., see Rosenfeld and Faircloth 2006). Feminist oriented scholars continue to make important contributions to the medicalization literature.

In recent years, studies of medicalization have expanded from illness conditions to also include biomedical enhancements (Conrad and Potter 2004). Enhancements include medical interventions to improve aspects of performance or the body. These interventions do not conceptualize bodily conditions as disorders or threats to health, but rather as techniques for improving a characteristic or capability. These are specifically biomedical enhancements, including much of cosmetic surgery (Sullivan 2001), pharmaceutical body enhancements like use of human growth hormone to increase height (Conrad and Potter 2004), and pharmaceutical performance enhancement (Wolpe 2002) including cognitive enhancement (Greely et al. 2008). The potential of reprogenetics, especially related to genetically enhancing offspring, remains mostly potential but likely real within the next few decades (Silver 1997). Sometimes the line between medicalized treatments and enhancements is difficult to discern; for example, there is the use of evidence drugs like Ritalin and Adderall are used by individuals who do not have ADHD as a cognitive enhancement (Outram 2012) or the Viagra is used not only to treat Erectile Dysfunction but to improve normal sexual performance. The growth of biomedical enhancements, especially through (cosmetic) surgery, pharmaceuticals, and eventually genetics is likely to be an expanding arena of medicalization.

Several analysts have pointed to the "medicalization of risk" as an area of increased medicalization (e.g., Clarke 2010). With the development of many sophisticated technologies that can screen and scan the body, such as MRI, CAT scans or genetic screenings, physicians can identify risks for future disorders at increasingly earlier stages. Often, when these risks are identified, the patient comes under medical surveillance, be it in terms of measuring cholesterol or PSA, viewing mammograms, having a colonoscopy, or genetic screening, each of these can discern more risks an individual may have in the future. Here the problem is medicalized not because an individual has a disorder, but because s/he has a higher *potential* for a medical condition sometime in the future. This may also affect the "threshold" of when a condition becomes seen as a medical problem. For instance, there is a current debate about whether to treat high blood pressure at 140 or 120 systolic. Reducing the treatment threshold to 120 would put millions more individuals under medical care. Thus, the medical management of risk increases the amount of medical surveillance (Armstrong 1995), which is a result of medicalizing the risk. While the early detection of risk may be medically beneficial, it is also an expanding form of medicalization.

Shifting Engines: Another Engine?

Several analysts have observed that medicalization has changed since the 1980s; Clarke et al. (2003) terms it a turn to biomedicalization while I call it shifting engines of medicalization. I touched on biomedicalization earlier, and will only briefly mention the shifting engines here, since I have written about them at length elsewhere (Conrad 2005, 2007).

In essence, I believe that the engines or social forces underlying medicalization have shifted. Rather than locating the source of medicalization, the medical profession, interprofessional or organizational conflicts, and social and professional movements, by the 1990s the most important engines were biotechnology (the pharmaceutical industry, genetics, and forms of medical technology), consumers, and managed care (including all kinds of health insurance). Physician's roles are now more subordinate in medicalization, often becoming gatekeepers for the expansion or contraction of medicalization.

We can characterize the three ascending engines as follows. Biotechnology, mainly the pharmaceutical industry and potentially genetics, has expanded enormously in the past two decades (Abraham 2010a) along with treatments for what are often newly defined disorders. A good example of this is the promotion of Paxil for the diagnosis Social Anxiety Disorder (Lane 2007), where the drug company (Glaxosmithkline) first promoted SAD as a common disorder and then promoted Paxil to treat it. Pharmaceutical promotion has been important in the medicalization of everyday sadness (Horwitz and Wakefield 2007), erectile dysfunction (Loe 2004), menopause (Bell 1987), and baldness (Conrad 2007), among many others.

In our modern medical world patients have increasingly become consumers, often coming to their medical provider with new demands for a specific treatment or diagnosis. Direct to consumer advertising has encouraged this (with the mantra, "Ask your doctor if [name of drug] is right for you" and patients (as consumers) approaching their physicians with requests for specific diagnoses and/or medications. The Internet has also created opportunities for patients to be consumers with various kinds of electronic support groups; with contested illnesses consumers will often band together over the Internet to advocate for the legitimacy of their diagnosis, such as with fibromyalgia (Barker 2008). Consumers are also important in the use of biomedical enhancements, since most of these (e.g. breast augmentation) are not covered by any kind of insurance. This can be seen as medicalization from below, whether it is pursued by individuals or organizations (Figert 2011). The third engine, managed care, really is a designation of all types of health insurance. If something is covered by health insurance, such as gastric by-pass operations for obesity, it fuels the medicalization of the designated disorder. On the other hand, if insurance does not cover some conditions, e.g. infertility or transgender surgery, that may well slow the medicalization of that condition. Thus, third party payers, including both public and private insurance, can accelerate or slow the process of medicalization.

When I reexamined the three engines of medicalization for my 2007 book, I was tempted to write a chapter on a fourth engine, but I had no data to support my ideas about this fourth engine so I left it out. I briefly sketch that fourth engine here; I still do not have any empirical evidence to support its impact. In my published conception of shifting engines, I claimed that physicians were increasingly relegated to gatekeepers in the context of the other three engines. I still believe this is true. But physicians may also be an important engine in what may be another way. I believe physicians are engines toward increasing medicalization because *a major objective and mission of physicians is to reduce individual suffering*. Physicians are trained to diagnose and treat ailments, conditions, and disorders to reduce patient's discomfort, vulnerability, disability, risk, pain, and suffering.

Thus, it seems to me, physicians are incentivized to treat conditions with medical interventions because they believe their calling is to reduce suffering, especially when patients come to the doctor's office or practice. This means sometimes providing medical treatments or diagnoses for problems that may be of questionable medical origin (e.g. some of what gets diagnosed as ADHD, sadness, sleep problems, obesity, shyness, among others). It should be noted that physicians only treat certain kinds of suffering; they do not see the suffering of extended unemployment, poverty, or lack of skills as problems need medical intervention. To paraphrase Zola's (1972) observation, if problems can be connected to the body or the psyche in some way they can been seen as falling into the physicians mission to reduce individual suffering. What is not yet known is whether the boundaries of medical views of suffering contribute to medicalizing particular conditions or behaviors. The physician's definition of what kinds of suffering elicit a medical response, what that response is, and what are the consequences is a question ripe for sociological research. Where are the lines drawn between medical and nonmedical suffering?

Few Approaches to Political Economy and Disparities of Medicalization

While the roots of medicalization studies may be elsewhere, the fertile soil that has nourished it stems from a social constructionist perspective on the development of medicalized categories (Barker 2010). I have lamented elsewhere (Conrad 2005) that we do not have much understanding about the political economy of illness. There are two places scholars have been unearthing some specifics about economic factors. With the emergence of studies of pharmaceutical promotion of diagnoses and treatments (Loe 2004; Lane 2007; Horwitz and Wakefield 2007) we can begin to examine how socioeconomic factors, especially expanding markets, can contribute to increased medicalization. This market-based approach sees medical treatments and care as a product and aligns with consumers as an engine. The other market arena is biomedical enhancements, which are typically market-based and tend to may be more or less purchased as medical commodities. This includes a significant amount of cosmetic surgery, including breast augmentations, rhinoplasties (nose jobs), face lifts, liposuction, etc., almost all of which is paid for out of pocket. As more of medicine becomes commercialized (Alper 1987), an increasing amount of procedures and treatments will be market-based (see Conrad and Leiter 2004).

While we don't have any exact calculations of what part of health care spending can be attributed to medicalization, a few years ago several colleagues and I made an attempt to estimate the cost of medicalization (Conrad et al. 2010). The amount of GDP spent on all health care has risen from 4 % in 1950 to nearly 17 % in 2011. Using 2005 data on the direct costs of 12 medicalized conditions we estimated that the total spending on these conditions was $77.1 billion or 3.9 % of total domestic spending on health care. It is difficult to say if this is a lot or a little, but it is more than the total that is spent on public health. Even if these numbers are reasonably accurate estimations, we don't know how they have changed overtime and or to what extent they are the economic drivers of these costs. It would be interesting to connect these findings to the three engines of medicalization to see how much each of these contributes to health costs.

While health disparities have become a central focus of public health and health services research, scholars have been limited in their approach to the differences and disparities of medicalization. As noted above, there is a significant literature on gender and medicalization focusing on gender differences, especially how women's conditions have been more susceptible to medicalized categories. We know much less about the racial and ethnic disparities in medicalization. Are some groups' conditions more likely to be medicalized, Are some "over" medicalized, or others undermedicalized? We know very little about this. For example, with ADHD there are claims that African American children are more likely to be labeled as ADHD while much of the data we have shows fewer African American children diagnosed and treated with ADHD (Bussing and Fay 2010). We know little about these disparities and how they are related to conceptions of disorders and access to health services, or, more generally, how they effect medicalization.

Finally, there is one socioeconomic factor that is so basic that once it is pointed out, it becomes patently obvious. In the U.S. and many other countries, the only way to get human services paid for (or reimbursed) is to define a condition or situation as a medical problem, because we only have insurance for health problems not for social problems. This creates an incentive to medicalize more problems because it is the only way to get them paid for. While this should be obvious, it is rarely mentioned and has not been well researched.

Troubles with Medicalization

Since I have written at length on what I see as some of the troubling social consequences of medicalization (Conrad 2007, pp. 146–164), I will only touch on them here. These discontents are probably some of the most significant, but by no means the only, troubling aspects of medicalization. For example, medical treatments often have health risks, as with menopause and hormone replacement therapy (HRT) or silicone breast implants (Stults and Conrad 2010), but these risks are not necessarily social consequences.

There are five major consequences of medicalization that I deem social ramifications, largely independent of any validity of diagnosis or efficacy of treatment. (1) *The pathologicalization of everything*. By this I mean medicalization is increasingly turning much of human difference into pathologies that need diagnosis and medical treatment. This is particularly true with behavior (witness the continuing growth of the number of diagnoses in the diagnostic and statistical manual (DSM) but also true with bodily conditions. In lectures, I have rhetorically asked, does hypochondria still exist? After all, we seem to have a diagnosis for virtually every human problem, so it is difficult to become labeled as a hypochondriac for one's symptoms. (2) *The medical definition of normality*. Here is where medical norms become social norms. Often this is manifested with the pharmaceutical industry defining what is "normal". Examples of this include what is normal sadness or shyness, the quality of erections as one ages, or the correct height for children and adults. Medicine has often adopted social norms, but here medicine is increasingly in the business of creating the "proper" social norms.

(3) *The expansion of medical social control.* Medical social control has always been an element of medicalization (Zola 1972; Conrad and Schneider 1980b) but with developments in pharmaceuticals, surgery, genetics and neuroscience the technological reach of medical social control is expanding. Moreover, there are other elements of medical social control that are expanding as well, such as medical surveillance be it of behavior (e.g. drinking when pregnant) or body

conditions (e.g. relating to cholesterol or blood pressure) that makes medicine at least implicitly the overseer of behavior. (Remember that expanding medical surveillance is not necessarily bad, it just exists, yet this does increase medical social control.)

(4) *The individualization of social problems.* While this is obvious to sociologists, medicalization and its clinical gaze turn complex social problems into clinical entities. With problems like alcoholism, obesity, and ADHD, for example, seeing these primarily as an individual clinical problem with a medical solution ignores the social contexts and roots of the problems at hand. This makes social or environmental interventions either ignored or at best secondary and reinforces technological fixes for complex social problems. (5) *Consumerization of medicine*. As noted above, medical procedures and care are increasingly becoming consumer items, subject to market forces. Sometimes this occurs from above, e.g. with pharmaceutical or cosmetic surgery promotion, but it also comes from below, with consumers (and patients) seeking more medical diagnoses and interventions. This runs parallel to what some are calling the commercialization of medicine and the rise of medical markets (Conrad and Leiter 2004).

These consequences are inherent inhere in medicalization and are independent of any issues of the validity or efficacy of particular cases of medicalization.

Islands of Resistance

There is some resistance to medicalization aside from scholars and social critics writing about it. It is not really organized social resistance but rather separate islands of resistance to specific issues. I will mention a few here.

Specific social movements or embodied health movements mount either organized campaigns against medicalization or seek to modify medical responses (Brown et al. 2004). The classic example historically is the success of what was then called “gay liberation” to get the APA to demedicalize homosexuality. Other movements like the disability rights movement and the body size acceptance movement are also examples of resistance to medicalization. To these one could add the long-term childbirth movement that has criticized the extremes of medicalization but is really seeking to reform childbirth care, not demedicalize it entirely. Another, perhaps more marginal group, are the Scientologists who campaign against psychoactive medication treatments for various psychological troubles. In another realm, there are some Internet sites that critique and seek to reconceptualize medicalized conditions. These include the “pro ana” websites that claim anorexia is not an illness but a lifestyle, or the neurodiversity websites that reconceptualize autism (especially Asparger’s syndrome) as just part of human diversity and not a disorder.

When certain treatments are found to increase risk for other illnesses, there may be a response that reduces medicalization. Stults has called these “risk scares”: when information about a new and usually serious risk becomes public knowledge into question a specific medical intervention and treatment is called into question (Conrad and Stults 2010). This occurred with silicone breast implants that were found to increase the risk of breast cancer. A broader example was when there were several “risk scares” about the effect of HRT, a common treatment for menopause, found to increase the risks of breast cancer, heart disease, and other ailments. This lead to a huge reduction of HRT use for menopause, but when a “safer” medication was developed the use increased again. Here it seems clear menopause was not demedicalized; only the use of a dangerous treatment reduced usage, which rose again when new or different “safer” medications were introduced.

Finally, insurance can impact medicalization. On the one hand it can encourage medicalization, as when Medicare and subsequently other medical insurance plans decided to consider obesity as a reimbursable illness and thus pay for gastric bypass operations for some patients. On the other hand, the fact that some insurance plans do not cover certain problems or conditions, such as infertility, probably acts as a resistance to medicalization. Some place in between is the interesting case of most insurance plans paying for medications or hospitalization but not psychotherapy for mental health problems; this could be seen as inducing greater use of psychopharmacology because it is the only treatment insurance will pay for. In short, insurance can provide an inadvertent resistance to medicalization.

As should be apparent from this section, the resistance to medicalization is dispersed and not particularly connected. There are no real organized countervailing forces (Light 1993) restricting medicalization. Since so few cases of demedicalization (e.g. homosexuality and masturbation are examples) can be identified, it seems fair to surmise that there are islands of resistance reacting to a tidal wave of medicalization.

A Glimpse at the Future

It seems clear that medicalization will not soon abate and it may increase further in a range of areas. I will close this chapter with a brief look at some potential areas where medicalization may expand in the next couple of decades. Some of these are already visible, others are barely emergent.

Among the greatest potentials for medicalization are the further findings in genetics. While genetic findings will not automatically lead to medicalization of conditions, there are at least two ways genetics will nurture medicalization. First, genetic testing and screening will allow doctors to identify potential conditions or genetic susceptibilities that will increase the surveillance and treatment of genetic risk. These proto diseases (Rosenberg 2000) will be medicalized even though there is no specific existing illness. The other potential contribution to increasing medicalization will be the ability to provide genetic biomedical enhancements. It may begin with genetic interventions to prevent certain medical disorders (e.g., from heart disease to alcoholism), but it will soon create a market for genetic enhancements for specific characteristics. It is my belief there will be high demand for enhancements that will create “designer babies” with medicalized enhanced traits among those who can afford it. This might ultimately lead to a new distinction between genetically enriched and non-enriched children.

Pharmaceutical medicalization will continue to and probably expand. Pharmaceutical companies, when they don’t have blockbuster drugs like Viagra or Lipitor, will attempt to find new uses for their already existing drugs. A current example is the repackaging of Prozac as Serifem, the same drug under a new name now marketed for premenstrual dysphoric disorder. The development of direct to consumer advertising will facilitate the growth of new markets.

The population in the U.S., Europe and elsewhere is aging, and this will impact medicalization. There are now specialists in anti-aging medicine, a fast growing part of medicine, that are now promoting all kinds of medical treatments for various aspects of aging. (Mykytyn 2006) They advertise that aging is a disease and not an inevitability. While some treatments related to aging already exist, this opens up an even larger frontier for the medicalization of what is essentially a normal part of the life course.

The Internet not only nurtures consumers and advertises treatments, it also is a repository of medicalized information. It is unclear how this will play out but the Internet can be a vehicle that can both be a support or critique of medical diagnoses and treatment. One thing for certain: there are few medical secrets anyone and various types of medical knowledge can be found there (e.g. professional, organizational, experiential). It would not be surprising if within a few years it will be possible to get a diagnosis via Internet websites and then order prescribed medications directly from an Internet seller, by passing face-to-face interaction with physicians.

Medicalization is going global. While medicalization used to be predominantly a North American and European phenomenon, we are seeing a globalization of medicalization. This is partly due to the Internet, the global pharmaceutical industry in search of new markets, the increased diffusion and influence of Western medicine (through professional influence and direct U.S.-European training). As one anecdotal example, when I lived in Indonesia in 1990 I asked physicians (trained in the U.S., Australia, and Europe) if they diagnosed and treated ADHD and anorexia. All said they heard of it, but no it wasn’t a problem here, or at least, they did not medically treat it. Recent communications with colleagues suggests this is no longer the case. The diagnoses and treatment have migrated to Indonesia (at least among those who could afford medical care).

In sum, by this point in time, medicalization has been established as a sociological analytic category that his influenced other disciplines and popular thinking about health and medicine. Reviewing the directions of medicalization studies, it seems safe to say that many conceptions about medicalization are well established yet some aspects are still unknown or under-addressed. However, there seems no doubt that medicalization continues to expand and impact society, with very few signs that this trend will be modulated or altered.

References

Abraham, J. (2010a). The sociological concomitants of the pharmaceutical industry and medications. In C. E. Bird., P. Conrad., A. M. Freemont., & S. Timmermans. (Eds.), *The Handbook of Medical Sociology*. Nashville: Vanderbilt University Press, PP. 290–308.

Abraham, J. (2010b). Pharmaceuticalization of society in context: Theoretical, empirical, and health dimensions. *Sociology, 44*, 603–622.

Alper, P. R. (1987). Medical practice in a competitive market. *New England Journal of Medicine, 316*, 337–339.

Andy, M., & Rich, E. (2008). The medicalization of cyberspace. New York: Routlege

Angell, Marcia. (2004). *The Truth About the Drug Companies*. New York: Random House.

Armstrong, D. (1995). The rise of surveillance medicine. *Sociology of Health & Illness, 17*, 393–404.

Baillargeon, D. (2009). *Babies for the Nation: The Medicalization of Motherhood in Quebec, 1910–1970*. Waterloo: Wilfred Laurier Press.

Ballard, K., & Elston, M. A. (2005). Medicalisation: A multi-dimensional concept. *Social Theory and Health, 3*, 228–241.

Barker, Kristin K. 2008. Electronic Support Groups, Patient Consumers, and Medicalization: The Case of Contested Illness. *journal of Health and Social Behavior 49*20–36.

Barker, K. K. (2010). The social construction of illness: Medicalization and contested illness. In C. E. Bird, P. Conrad, A. M. Freemont, & S. Timmermans (Eds.), *The Handbook of Medical Sociology* (6th ed., pp. 147–162). Nashville, TN: Vanderbilt University Press.

Becker, H. S. (1973). *Outsiders: Studies in the Sociology of Deviance* (2nd ed.). Glencoe, IL: Free Press.

Bell, S. (1987). Changing ideas: The medicalization of menopause. *Social Science and Medicine, 24*, 535–542.

Brown, P., Zavestoski, S., McCormick, S., Meyer, B., Morello-Frosch, R., & Altman, R. (2004). Embodied health movements: new approaches to social movements in health. *Sociology of Health & Illness, 26*, 50–80.

Bussing, R., & Fay, G. (2010). Assessing and treating attention deficit hyperactivity disorder in culturally diverse populations. In: S. Evans., & B. Hoza. (Eds.). *Treating Attention Deficit Disorder* (pp. 20-1–20-25). Princeton, NJ: Civic Research Institute.

Cheryl, S., & Conrad, P. (2010). Medicalization and risk scares: The case of menopause and HRT. In D. Light. (Ed.), *The Risks of Prescription Drugs* (pp. 120–142). New York, NY: Columbia University Press.

Clarke, Adele E., Laura Mamo, Jennifer Ruth Fosket, Jennifer R. Fishman and Janet K. Shim (eds.). (2010). *Bimedicalization: Technoscience, Health and Illness in the U.S.* Durham, NC: Duke University Press.

Clarke, A. E., & Shim, J. K. (2011). Medicalization and biomedicalization revisited. In B. Pescosolido, J. Martin, A. Rogers, & D. Pilgrim (Eds.), *Handbook of the Sociology of Health, Illness and Healing* (pp. 173–199). New York, NY: Springer.

Clarke, A. E., Shim, J. K., Mamo, L., Fosket, J. R., & Fishman, J. R. (2003). Biomedicalization: Technoscientific transformations of health, illness, and U.S. biomedicine. *American Sociological Review, 68*, 161–194.

Clarke, A. E., Shim, J. K., Mamo, L., Fosket, J. R., & Fishman, J. R. (2011). Biomedicalization: A theoretical and substantive introduction. In A. E. Clarke., L. Mamo., J. R. Fosket., J. R. Fishman., & J. K. Shim. (Eds.), *Biomedicalization: Technoscience, Health, and Illness in the U.S.* (pp. 1–47). Durham, NC: Duke University Press.

Conrad, P. (1975). The discovery of hyperkinesis: Notes on the medicalization of deviant behavior. *Social Problems, 32*, 12–21.

Conrad, P. (1976). *Identifying Hyperactive Children: The Medicalization of Deviant Behavior*. Lexington: D.C. Heath.

Conrad, P. (1987). Wellness in the workplace: Potentials and pitfalls of worksite health promotion. *Milbank Quarterly, 65*, 255–275.

Conrad, P. (1992). Medicalization and Social Control. *Annual Review of Sociology, 18*, 209–232.

Conrad, P. (2000). Medicalization, genetics and human problems. In C. Bird., P. Conrad., & A. Fremont. (Eds.), *Handbook of Medical Sociology* (5th Ed.). Englewood Cliffs, NJ: Prentice Hall.

Conrad, P. (2007). *The Medicalization of Society: On the Transformation of Human Condition into Treatable Disorders*. Baltimore: Johns Hopkins University Press.

Conrad, P. & Valerie L. (2008). From Lydia Pinkham to Queen Levitra: DTCA and Medicalization. *Sociology of Health and Illness 30*:825–838

Conrad, P. & Cheryl S. (2010). Medicalization and Risk Scares: The Case of Menopause and HRT ,pp. 120-42 in Donald Light (ed.) *The Risks of Prescription Drugs*. New York: Columbia University Press.

Conrad, P., & Leiter, V. (2004). Medicalization, markets and consumers. *Journal of Health and Social Behavior 45*(extra issue), 158–176.

Conrad, P., & Markens, S. (2001). Constructing the 'Gay Gene' in the news: Optimism and skepticism in the American and British press. *Health, 5*, 373–400.

Conrad, P., & Potter, D. (2004). Human growth hormone and the temptations of biomedical enhancement. *Sociology of Health & Illness, 26*, 184–215.

Conrad, P. (2005). Shifting Engines of Medicalization. *Journal of Health and Social Behavior 46*, 3–14.

Conrad, P., & Schneider, J. W. (1980a). *Deviance and Medicalization: From Badness to Sickness*. St. Louis: C.V. Mosby.

Conrad, P., & Schneider, J. W. (1980b). Looking at levels of medicalization: A comment on strong's critique of the thesis of medical imperialism. *Social Science and Medicine, 14A*, 75–79.

Conrad, P., & Schneider, J. W. (1992). *Deviance and Medicalization: From Badness to Sickness* (Expanded ed.). Philadelphia: Temple University Press.

Conrad, P., Mackie, T., & Mehrotra, A. (2010). Estimating the costs of medicalization. *Social Science and Medicine, 70*, 1943–1947.

Davis, J. E. (2006). How medicalization lost its way. *Society, 43*, 51–56.

Davis, J. E. (2010). Medicalization, social control and the relief of suffering. In W. Cockerham (Ed.), *The New Blackwell Companion to Medical Sociology* (pp. 211–241). Oxford, UK: Wiley-Blackwell.

Davis-Floyd, R. (2004). *Birth as an American Right of Passage* (2nd ed.). Berkeley: University of California Press.

Ehrenreich, B., & English, D. (1973). *Complaints and Disorders: The Sexual Politics of Sickness*. New York, NY: The Feminist Press.

Figert, A. E. (1995). The three faces of PMS: The professional, gendered and scientific structuring of a psychiatric disorder. *Social Problems, 42*, 56–73.

Figert, A. E. (2011). The consumer turn in medicalization: Future directions with historical foundations. In B. Pescosolido, J. Martin, A. Rogers, & D. Pilgrim (Eds.), *Handbook of the Sociology of Health, Illness and Healing* (pp. 291–307). New York, NY: Springer Publishing.

Foucault, M. (1965). *Madness and Civilization*. New York, NY: Bandam Books.

Freidson, E. (1970). *Profession of Medicine: A Study of the Sociology of Applied Knowledge*. Chicago: University of Chicago Press.

Goffman, E. (1961). Asylums. New York: Anchor Books.

Greely, H. T., Sahakian, B., Harris, J., Kessler, R., Gazzaniga, M. S., Campbell, P. & Farah, M. J. (2008). Toward responsible use of cognitive enhancing drugs by the healthy. *Nature*, *456*, 702–705.

Gusfield, J. R. (1967). Moral passage: The symbolic process in the public designations of deviance. *Social Problems, 15*, 175–188.

Hislop, J., & Arber, S. (2003). Understanding women's sleep: Beyond. Medicalization- healthicization. *Sociology of Health & Illness, 25*, 815–837.

Horwitz, A. V., & Wakefield, J. (2007). *The Loss of Sadness: How Psychiatry Transformed Normal Sorrow into Depressive Disorder*. New York, NY: Oxford University Press.

Illich, I. (1975). *Medical Nemesis: The Expropriation of Health*. New York, NY: Random House.

Illich, I., Zola, I. K., & others. (2000). *Disabling Conditions*. London: Marion Boyers.

Lane, C. (2007). *Shyness: How Normal Behavior Became a Sickness*. New Haven, CT: Yale University Press.

Lantz, P. M., Lichtenstein, R. L., & Pollack, H. A. (2007). Health policy approaches to population health: The limits of medicalization. *Health Affairs, 26*, 1253–1257.

Light, D. W. (1993). Countervailing power. In F. W. Hafferty & J. B. Mckinlay (Eds.), *Theh Changing Medical Profession: An International Perspective* (pp. 69–79). New York, NY: Oxford University Press.

Lippman, A. (1991). Prenatal genetic testing and screening: Constructing needs and reinforcing tendencies. *American Journal of Law and Society, 17*, 15–50.

Lippman, A. (1998). The Politics of Health: Geneticization Verses Health Promotion. In Susan Sherwin (ed.) *The Politics of Women's Health: Exploring Agency and Autonomy*. Philadelphia: Temple University Press.

Litt, J. S. (2000). *The Medicalization of Motherhood*. New Brunswick, NJ: Rutgers University Press.

Lock, M. (2001). Medicalization: Cultural concerns. In N. Smelser & P. Baltes (Eds.), *International Encyclopedia of the Social and Behavioral Sciences*. New York, NY: Elsevier.

Loe, M. (2004). *The Rise of Viagra: How the Little Blue Pill Changed Sex in America*. New York, NY: NYU Press.

Maloney, Malread Easton, Thomas R. Konrad, & Catherine R. Zimmer. (2011). The Medicalization of Sleeplessness: A Public Health Concern. *American Journal of Public Health 101*, 429–433.

Martin, E. (1987). *The Woman in the Body: A Cultural Analysis of Reproduction*.

Medina, T. R., & McCraine, A. (2011). Layering control: Medicalization, psychopathy, and the increasing muti-instiutional management of social problems. In B. Pescosolido, J. Martin, A. Rogers, & D. Pilgrim (Eds.), *Handbook of the Sociology of Health, Illness and Healing* (pp. 139–157). New York, NY: Springer Publishing.

Metzl, J. M., & Herzig, R. M. (2007). Medicalisation in the twenty-first Century: An introduction. *The Lancet, 369*, 697–698.

Moloney, M., Konrad, T. R., & Zimmer, C. R. (2011). The medicalization of sleeplessness: A public health concer. *American Journal of Public Health, 101*, 1429–1433.

Morgan, L. M. (1990). The medicalization of anthropology: A critical perspective on the clinical debate. *Social Science and Medicine, 30*, 945–950.

Moynihan, R., & Cassels, A. (2005). *Selling Sickness*. New York, NY: Nation Books.

Moynihan, R., Heath, I., & Henry, D. (2002). Selling sickness: The pharmaceutical industry and disease mongering. *British Medical Journal, 324*, 886–891.

Mykytyn. Courtney Everts. (2006). Anti-aging medicine: A patient/practioner movement to redefine aging. *Social Science and Medicine, 62*,643–653.

Nelkin, D., & Susan Lindee, M. (1995). *The DNA Mystique: The Gene as a Cultural Icon*. New York, NY: Freeman Publishing.

Nye, R. A. (2003). The evolution of the concept of medicalization in the late twentieth century. *Journal of the History of the Behavioral Sciences, 39*, 115–129.

Outram, S. (2012). The use of metthylphenidate among students: The future of ehancement? *Journal of Medical Ethics, 36*, 198–202.

Parens, E. (2011). On good and bad forms of medicalization. *Bioethics doi,*. doi:10.1111/j.1467-8519.2011.01885.x.online.

Parsons, T. (1951). *The Social System*. Glencoe, IL: The Free Press.

Pitts, J. R. (1968). Social control: The concept. In Sills, D. L. (Ed.), *International Encyclopedia of the Social Sciences* (Vol. 14, pp. 381–396). New York, NY: Macmillan and The Free Press.

President's Council on Bioethics. (2003). *Beyond Therapy: Biotechnology and the Pursuit of Happiness*. Washington, DC: The President's Council on Bioethics.

Press, N. (2006). Social construction and medicalization: Behavioral genetics in context. In E. Parens., A. R. Chapman., & N. Press. (Eds.), *Wrestling with Behavioral Genetics: Science, Ethics and Public Conversation* (pp. 131–149). Baltimore: Johns Hopkins University Press.

Riessman, C. K. (1983). Women and medicalization: A new perspective. *Social Policy, 14*(Summer), 3–18.

Riska, E. (2003). Gendering the medicalization thesis. *Advances in Gender Research, 7*, 59–87.

Riska, E. (2011). Gender and medicalization and biomedicalization theories. In A. E. Clarke, L. Mamo, J. R. Fosket, J. R. Fishman, & J. K. Shim (Eds.), *Biomedicalization: Technoscience, Health, and Illness in the U.S*. (pp 147–171). Durham NC: Duke University Press.

Rosenberg, C. (2000). Banishing risk: Continuity and change in moral management of disease. In A. Brandt & P. Rozin (Eds.), *Morality and Health* (pp. 35–52). New York, NY: Routledge.

Rosenfeld, D., & Faircloth, C. (Eds.). (2006). *Medicalized Masculinities*. Philadelphia: Temple University Press.

Schepher-Hughes, Nancy & Margaret Lock. (1987). The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology *Medical Anthropology Quarterly* 1, 6–41.

Shostak, S., Conrad, P., & Horwitz, A. (2008). Sequencing and its consequences: Path dependence and the relationships between genetics and medicalization. *American Journal of Sociology, 114*(S1), S287–S316.

Silver, L. M. (1997). *Remaking Eden: Cloning and Beyond in a Brave New World*. New York, NY: Avon Books.

Sullivan, D. A. (2001). *Cosmetic Surgery: The Cutting Edge of Medicine in America*. New Brunswick, NJ: Rutgers University Press.

Szasz, T. S. (1960). The myth of mental illness. *The American Psychologist, 15*, 113–118.

Szasz, T. S. (1970). *The Manufacture of Madness: A Comparative Study of the Inquisition and the Mental Health Movement*. New York, NY: Harper and Row.

Thorpe, K. E., & Philwaw, M. (2012). The medicalization of chronic disease and costs. *Annual Review of Public Health, 23*, 409–423.

Welch, H. G. (2010). The medicalization of life. *Los Angeles Times, 15*, A15.

Wertz, R. W., & Wertz, D. C. (1989). *Lying-In: A History of Childbirth in America* (Ex ed.). New Haven, CT: Yale University Press.

Williams, S. J., & Calnan, M. (1996). The ‘Limits’ of medicalization? Modern medicine and the lay populace in ‘Late’ modernity. *Social Science and Medicine, 42*, 1609–1620.

Williams, S. J., Seale, C., Boden, S., & Lowe, P. (2008). Waking up to sleepiness: Modafinil, the Media and the pharmaceuticalisation of everyday/night life. *Sociology of Health & Illness, 30*, 839–855.

Wolpe, P. R. (2002). Treatment, enhancements and the ethics of neurotherapeutics. *Brain and Cognition, 50*, 387–395.

Zola, I. K. (1972). Medicine as an institution of social control. *The Sociological Review, 20*, 487–504.

Chapter 11
Reflexive Modernity and the Sociology of Health

Brian P. Hinote and Jason Adam Wasserman

The analysis and explanation of increasingly complex social phenomena represents one of the foremost challenges of sociological theory in the twenty-first century. This is particularly important in the sociology of health because definitions of health, mechanisms of disease, the nature of clinical medicine, and the structure of health care delivery in late modernity are all undergoing fundamental transformations. Undoubtedly, scholars will be better positioned to understand these developments if they also consider the broader social changes from which they emanate. Many transformations in health and medicine stem in large part from the way the epidemiological transition has radiated across macro and micro levels of scale. Medical sociologists must not only engage these phenomena in a critical fashion, but in pushing theory and analysis forward (and maintaining a dynamic and relevant sociology of health), we must also match this complexity with equally complex conceptual frameworks that are able to span the micro–macro divide and connect phenomena at multiple levels of analysis. Put another way, explaining, analyzing, and understanding late modern shifts (or fractures) in health, clinical practice, and health care delivery is critical for medical sociology moving forward and the theoretical and conceptual formulations of health sociology are integral to this endeavor.

We draw upon the insights of Ulrich Beck (1992, 1994, 1999) to illustrate the requisite elements of a health sociology "on the move;" one that is capable of engaging various, dynamic health-related phenomena in late modernity. Many

---

B. P. Hinote (✉)
Sociology, Middle Tennessee State University, MTSU Box 10, Todd 325, Murfreesboro,
TN 37132, USA
e-mail: bhinote@mtsu.edu

J. A. Wasserman
Bioethics, Kansas City University of Medicine and Biosciences, 1750 Independence Ave.,
Kansas City, MO 64106, USA

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_11, © Springer Science + Business Media Dordrecht 2013

contemporary thinkers distinguish themselves by working to span the micro–macro continuum (e.g., Bourdieu 1984, 1990; Giddens 1984, 1991), but medical sociologists seem to underutilize Beck's work in this regard [Turner (1995) is one notable exception]. We employ Beck's conceptualization of reflexive modernization to organize and analyze critical developments in the relationship between sociological theory, medicine, and the landscape of health and illness. We assert that connecting these various developments represents a worthwhile endeavor for medical sociology because fractured understandings of contemporary shifts in health and healthcare delivery promote fractured responses to them. To use a medical metaphor, such approaches are like focusing on symptoms of a disease and leaving the cause unaddressed.

The critical role that contemporary medical sociological theory can, and should, play involves explaining and assembling the various pieces of a highly complex system, that is, to make sense of structures by illustrating their logic when they seem fractured and chaotic. In this way sociological theory becomes practically useful because understanding broadly the state and direction of health and medicine promotes consistent and effective strategies for moving forward. For instance, if medicine proper does not develop an episteme and institutional structure equal to the complexities of contemporary health care, it will become increasingly impotent in the area of chronic illness at a time when such complex disorders are the most significant aspect of health (Wasserman and Hinote 2011). On the other hand, if medical sociology cannot rise to meet the same challenge, then it will fail to prove its usefulness in debates surrounding contemporary medicine, health, and illness, and will thus be excluded from discussions where sociological insights may be most valuable. We begin by identifying various transformations in health, clinical practice, and health care delivery, and then illustrate how Beck's ideas are particularly helpful for understanding the fundamentals of this shifting health landscape. We then examine the challenges facing health sociology in reflexive modernity, along with what sociological frameworks can offer as we seek to engage a radically altered terrain of health and medicine.

Recent Social Transformations in Medicine

The biomedical approach to health, disease, and health care delivery has produced considerable success over the course of its history. But this paradigm is likely reaching the upper limits of its efficacy, in part because of its limited impact on chronic illness and other health indicators (e.g., Bodenheimer et al. 2009; Mahar 2006; Paez et al. 2009). One recent study even reports aggregate declines in life expectancy over the last 20 years for white men and women without a high school diploma (Olshansky et al. 2012). Certainly many would agree that investment in more advanced treatments and technologies often appears to have reached a point of diminishing diagnostic and therapeutic returns (e.g., Welch et al. 2011) where huge investments yield modest improvements in aggregate health.

The shift from simple (or orthodox) modernity to reflexive modernity is accompanied by shifts in the underlying structure of disease itself—trends that will likely reshape medical practice. For example, in contrast with the most common diseases of simple modernity, contemporary mortality risks are often difficult to address within the structure of the clinic, in part because the origins and treatments of these disorders are diffused across innumerable micro-decisions enacted and reproduced on a daily basis. The fact that macro-level social factors both enable and constrain these health and lifestyle micro-decisions further complicates this situation (see Cockerham 2007b). In short, the diseases most often affecting human populations today are increasingly complex, multi-dimensional phenomena that have largely stymied clinical medicine, which typically retains a primary focus on the decontextualized individual body (Lock and Nguyen 2010; Wasserman and Hinote 2011).

In part due to the fundamental mismatch between the structure of contemporary disease and modern clinical medicine, the epidemiological threats of reflexive modernity also create challenges for professional medicine that permeate multiple institutional levels from administration, to the clinic, to the overarching biomedical paradigm that constitutes the foundation of modernist medical thought. Indeed, these developments manifest a crisis in modern medicine, where novel complexities require medicine to fundamentally reinvent itself, as it did once before when the development of the germ theory and dramatic advances in bacteriology shook then—dominant notions of disease, diagnosis, and treatment (Wasserman and Hinote 2012). The shifting landscape of health and illness creates new challenges for theorizing in medical sociology as well. One important task for the sociology of health involves understanding and explaining these transformations—to drive theory construction and analysis, but also to use sociological thinking to make sense of complex, multi-layered phenomena. In doing so, emerging frameworks also make their insights relevant to clinical practice and policy developments. As social factors are increasingly recognized as important, even fundamental, dimensions of disease, social scientists can make unique contributions to contemporary debates in and around health and medicine (voices often excluded historically from pertinent practice and policy issues).

Reflexive Modernity and Epidemiological Shifts

Simple modernization spawned a new epoch of social, political, and economic development and transformed social institutions (Beck 1994). As a result, enlightenment rationality and technological advances in production have fed each other cyclically for the last several centuries. As both science and industry improved their capacities to produce either verifiable knowledge or material goods, the means-ends criterion of instrumental rationality gained an increasing share of the Western consciousness (Adorno [1966] 1973; Horkheimer and Adorno [1944] 2000). The result for medicine was not simply the technological *ability* to cure disease, but a scientific qua industrial *way of thinking* that established the production of cures as the ultimate goal of medical care.

But societies around the world are undergoing significant changes that undermine the logics of Enlightenment-based modernity, and writers from many disciplines have for several years struggled to conceptualize these new configurations. All agree that today and in the years to come, we will be confronted by profound contradictions and perplexing paradoxes (Beck 1999, p. 1). Indeed, this is particularly evident in contemporary health and health care delivery, and the outcomes emerging from these changes seem to have one thing in common: they are unanticipated, unforeseen consequences of the victory of the first, simple, linear phase of modernist medicine. New forms of social, institutional, and interpersonal relations are emerging so that in various disciplines—sociology, politics, philosophy, and now medicine—we need a paradigm shift, a new way of thinking and of approaching new challenges (Beck 1999, p. 2).

The concept of reflexive modernization is helpful in identifying and analyzing the late modern problematics emerging from the phenomena of historical and institutional development. Reflexive modernization is the idea of 'creative self-destruction,' not from revolution, as Marx and Engels ([1848] 1998; 1976) predicted, but ironically from the very successes of modernism (Beck 1994, p. 2). In this way, previous and ongoing development and techno-economic "progress" help to dissolve and transform the previous organization of institutions and social relations. These transformations help open up new paths in a second modernity (Beck 1994)—paths in the form of novel approaches to the variety of emerging problems.

Beck (1992, 1994) conceptualizes these transformations by distinguishing between "first" and "second" modernity (or "industrial society" and "risk society"). If modernization is defined as a process of perpetual innovation, then it also follows that modernization contains a temporal component. Thus, these processes eventually yield a new risk society, which represents a distinct departure from first modernity, particularly because the social, political, individual, and collective risks created by innovation are increasingly unmanageable. Accordingly, two developmental stages can be identified. First is a period where unforeseen hazards are systematically produced, where unintended problems arise from decisions made but where these problems are not (yet) the subject of political or public discourse. Yet there is also a second and distinct period where the hazards of industrial society can no longer be controlled, where society still makes decisions using industrial ways of thinking, and where dilemmas arising from these and previous decisions constitute a core of public, political, and private debates (Beck 1999, pp. 72–73). In short, the institutions of industrial society produce threats that are too large and complex to manage (see Beck 1994).

Reflexive modernization does not refer to simple "reflection" upon the self-limiting consequences of industrial modernity. It more specifically alludes to the act of "self-confrontation." The transition from the first to second modernity involves the generation of unintended consequences stemming from the realities of industrial society (e.g., a focus on medical-scientific progress and abstraction from its broader consequences), which dominate the thought and action of humans and the logic around which institutions are organized. In this way, the concept is at the same time *process* (i.e., of creative self-destruction, of self-limiting development, etc.), *action* (i.e., self-confrontation of new and unmanageable hazards), and *period* (i.e., second modernity is a reflexive modernity).

Beck (1994) also distinguishes reflexive modernization from other social changes like crisis or revolution, though it may coincide or overlap with those categories. Further, the motor of reflexive modernization (among other phenomena—see, for example, Beck 1999; Beck et al. 1994) is not something entirely new. Rather, it is the knowledge and unintended effects associated with familiar cycles of capital, technology, and science. These influences converge to emphasize the fact that we are now confronting challenges on an unprecedented scale in multiple institutions at multiple levels of society. Without recognition of the forces of reflexive modernization, all potential solutions contain within themselves the seeds of new and more difficult dilemmas (Beck 1999).

The epidemiological transition reflects one important shift into reflexive modernity, where the successes of modern medicine and public health unleashed chronic illness as primary sources of mortality. The epidemiological transition (see Omran 1971) specifically refers to shifts in the burden of disease from infectious toward chronic ailments, when mortality and morbidity move from acute, short-term, curable sickness to more prolonged, sometimes manageable, but rarely curable, illnesses like heart disease, lupus, hypertension, and diabetes. During and after this transition, primary mortality risks become significantly more ambiguous and less manageable than the diseases around which modern medicine had so much previous success. The result is a health landscape of much greater complexity, perhaps most notably in the rising prominence of more complex disease processes involving health lifestyles and other social determinants of health (along with the changing nature of health risk itself).

Public perceptions of healthcare in the first half of the twentieth century fixated upon the promise of modern medicine, a phenomenon salient in the heroification of physicians such as Ehrlich in the early 1900s and Salk in the 1950s (Duffy 1993; Witkop 1999). But today we are likely witnessing the upper limits of traditional biomedicine’s contributions to increased longevity. Gains in life expectancy from the successful treatment and prevention of infectious diseases highlighted chronic illnesses as preeminent health risks, for which there are no “magic bullets” (Beck 1992; Cockerham 2005; Dubos 1959; Turner 1995). Ironically, modernist medical advances give rise to new illnesses that no longer conform to old clinical paradigms. For example, chronic disease is a constantly evolving, decades-long process that emerges from the cumulative individual, yet structurally influenced, decisions across a life course. The structure of the clinic as the singular locus of diagnosis and treatment is therefore fundamentally mismatched with the structure of illness in reflexive modernity.

The disconnect between clinical medicine and the challenges of contemporary illness is evidenced by the multiple ways that health and healthcare are now conceptualized, institutionalized, and enacted. Lifestyle is now one of the most significant predictors of health and mortality. Although medicine develops and prescribes new and improved drugs aimed at illnesses like heart disease and diabetes, its success has been modest, particularly compared to past heroics where entire diseases were eradicated from entire populations. But when not distinctly providing cures, medicine proper offers only one among many treatment choices. The prominence of chronic illness means that individuals are increasingly responsible for managing their own health, and greater personal responsibility means that health has become an accomplishment, something conceptualized as earned or achieved, usually through consumption, and therefore also a symbol of status (Cockerham 2005, 2007b).

Risk and (In)Calculability

Perhaps what signifies more than anything the need for dynamic and multilevel theories of health (e.g., frameworks that work across the macro/micro divide, that engage multiple understandings of health and disease, etc.) is illuminated with the notion of incalculable risk. Like many other theorists (e.g., Bauman, Giddens, etc.), Beck resists postmodernist labels in favor of less loaded terms like “late modern.” Certainly his work does not possess the epistemic nihilism, or the literary impenetrability, usually associated with the genre (see Cockerham 2007a; Wasserman 2009; Wasserman and Hinote 2011). Labels aside, Beck nonetheless speaks generally to the fracturing of monolithic sources of knowledge and identity in contemporary Western culture. Key to these transformations, (Beck 1992, p. 171) contends, is the concept of “calculability,” whose degree of significance and conditions of application are beginning to become dubious. Calculability is fundamentally responsible for centralizing knowledge in the hands of expert authorities—those capable of making the calculations.

While knowledge in modernity is still contested, its contests are contained within elite circles of experts who often share a common epistemic assumption that truth exists and can be uncovered, even if it is presently unknown. In other words, modernist frameworks assume that contested knowledge can and eventually will, be resolved into consensus. Operating from a monolithic center in first modernity, scientists search for knowledge that is universally true. Under this episteme, risk is manageable when outcomes can be predicted and their impacts lessened, or at least met with preparatory anticipation. In that context, progress is the steady and uni-linear improvement of scientific and technological capabilities of risk management. In turn, the authority to address social problems rests securely in the hands of experts who know, or eventually will know, what to do. Ironically, however, the success of modernity spawned situations of risk for which the experts had no answers (e.g., nuclear power, among others). The expansive reach of potential catastrophes, combined with their incalculability, assaults large-scale social institutions like the boundaries of the nation-state (Beck 1992, 1999). Under such conditions, citizens form bonds through shared risk and also by organizing around risks (e.g., forming groups supporting or opposing nuclear power). Without expert answers, risk-knowledge becomes socially and politically contested by parties of ordinary people with various opinions holding relatively equal weight. When no one can claim to possess true knowledge, multiple, opposing perspectives are simultaneously legitimate.

As risks become less calculable, subcultural affiliations increasingly replace macro-level social structures and/or institutions as central sources of social bonds and identity. That is, individuals decreasingly identify themselves according to national citizenship, religious denomination (e.g., Catholic, Baptist, Methodist), or political party. Rather, identities are derived from and carried out within subcultural enclaves, which may be religious or political, but with far less expansive qualities, concerns, or aspirations. Beck (1999) elucidates such transformations in Europe where one's identity as German or French, for example, declines in importance while organizational affiliations form increasingly around more narrowly focused issues such as environmental causes. In the U.S., similar trends are emerging, for example, in the growing number of individuals refusing to affiliate with either major political party and with increasing numbers of issue-oriented social and political groups (The Harris Poll 2005; Gallup 2007). One recent Pew Research Center typology of political ideology, for example, underscores these trends in charting the overall rise in independents, and also the consolidation of groups previously at the conservative and liberal ends of the spectrum, while new and diverse assemblages emerged in the middle (Pew Research Center 2011).

In the contemporary period, therefore, *estimations* replace the *calculations* that have become impossible to make. Beck (1992), p. 171 writes that we come to understand "calculability in the sense of *estimability*," and that "Decreasing 'calculability' is…accompanied by increasing 'estimability'," in reflexive modernity. Put another way, while consequences are more unpredictable, we must still make decisions about what to do, even when the criteria on which they are justified become more and more unstable. So when risk cannot be calculated but choices still have to be made, people end up doing the best they can. In this situation they base choices on a combination of individual and cultural values supplemented by whatever evidence they individually find most believable from a field of competing possibilities, none of which can be decidedly disproven. While often utilized in ways limited to a macro-theoretical context, Beck's ideas actually traverse multiple levels of scale and speak not only to broad cultural and structural transformations, but also to individual beliefs and behaviors (see Tulloch and Lupton 2003, who also draw down the implications of Beck's "macro" perspective to examine its implications for "everyday life"). We turn now to examine how these ideas can drive the sociology of health and illness.

Chronic Illness as Incalculable Risk

Following the epidemiological transition, chronic illnesses represent the greatest threats to mortality in developed countries, but this has also initiated substantial transformations in health and medicine. Acute ailments were effectively addressed with modern processes of management, often in the form of cures. However, the profiles of chronic illness bring greater complexity, most prominently where macro- and micro-sociological phenomena become more seamlessly intertwined within causal disease processes. In this section we explain the ways that chronic diseases defy a modernist episteme relying on calculability, as well as how they reflect this increasingly complex, dynamic, and integrated health landscape. It is to this landscape that medical sociological theory must be responsive, and for which Beck's notion of reflexive modernity provides insight.

While contemporary environmental hazards like nuclear accidents clearly embody incalculable risk and hold all the ramifications for social transformation towards multi-vocaled knowledge, Beck's ideas expand beyond geographically dependent threats. While this is recognized in principle—Beck notably mentions it himself—it is not widely executed in the application of Beck's theory to specific contemporary phenomena, yet this is a particularly important consideration for understanding contemporary transformations in medicine. Health demography identifies geographic trends in chronic illness, such as disproportionately high rates of heart disease along the "stroke belt" in the southeastern United States (e.g., Casper et al. 2003; CDC 2007), but these observations arguably reduce to culturally embedded lifestyle practices. Moreover, while population analyses point out aggregate empirical trends, chronic illness risks are relatively invisible and unpredictable from any single individual's perspective. We point out that chronic illness is a feature of contemporary societies that, while geographically diffuse, nonetheless represents a fracturing of monolithic health knowledge resulting in the legitimation of multiple perspectives on how to be healthy in a time when the most prominent health risks have become incalculable.

Beck (1992, p. 20) himself notes new health risks in late modernity

> …the struggle for one's 'daily bread' has lost its urgency…For many people problems of 'overweight' take the place of hunger. This development, however, withdraws the legitimizing basis from the modernization process, the struggle against obvious scarcity, for which one was prepared to accept a few (no longer completely) unseen side effects.

In the chronic illness era then, disease risk is more incalculable than ever. The estimation of consequences of this or that health behavior becomes individuated, especially in a sea of conflicting evidence about successful approaches. Lifestyle choices therefore reflect a means of estimating, rather than calculating, chronic illness risks and health behavior outcomes. Of course, these choices are not entirely individuated because they are embedded in class, and because "lifestyle enclaves" (consistent with Beck's notion of subcultural affiliation) are formed around various health knowledges (see Bellah et al. [1988] 2007). Particularly, lifestyle dispositions emerge from class structures to manipulate the estimation process, where the poor often assume that lifestyles are relatively insignificant, particularly those that they cannot afford anyway, while more affluent and/or educated individuals deem them quite important (see Keely et al. 2009 for discussion of health fatalism as a sense-making process). This does not mean total disregard for health lifestyles, but rather functions as a means to mitigate an increasingly uncertain health landscape, where the causes of disease are multifactorial, and many of those factors are unpredictable from a particular individual's standpoint. As noted by Keely et al. (2009, p. 734), "…individuals often make fatalistic statements to express an understanding of locally or broadly limiting factors for health efficacy…" It is this indefinite fluidity that elucidates the key distinction between estimation and calculation of risk generally and for lifestyle practices in particular. This fluidity also produces social transformations in health and medicine that defy the heuristic divisions commonly utilized in many sociological theories.

Sociological thinking has for many years emphasized the importance of social factors and contexts in shaping health behaviors and outcomes, but has historically experienced difficulty working with these notions simultaneously at multiple levels of scale. For example, class as a macro-level concept corresponds to mortality, while a micro-level analysis of class might examine its effects upon end-of-life experiences and decision-making. But social scientific theories and methods have been slow to produce ways of assembling these sorts of different dimensions into single conceptual or analytic frameworks (see Cockerham and Hinote 2009 for a discussion of related methodological issues). Certainly, theorists from Weber ([1922] 1978) to Bourdieu (1984, 1990) to Giddens (1984, 1991) provide various conceptualizations of the roles of agency and structure, while Cockerham (2005) synthesizes earlier formulations into a health lifestyles theory, explaining how specific health behavior patterns are characteristic of certain social groups. Class, for example, affects the degree to which individuals are able to estimate risk through lifestyles (via consumption), but also facilitates the ascription of risk to particular social groups (Cockerham 2006; Macintyre et al. 2002). In other words, class bears particular influence on chronic illness as an incalculable risk, because lifestyles represent individual attempts to estimate those risks, but such choices are always made within structural contexts.

Working across these classical conceptual divides (characterized nicely by Abbott's 2004 account of "basic epistemological debates") represents the core challenge for contemporary sociology more generally, but medical sociological theory in particular must also engage this problematic, especially in light of the growing salience of chronic illness and the increased complexity that accompanies it. These shifts increasingly render inadequate understandings of health and illness that usually remain confined to one level of analysis or another. That is, in the same way that practitioners cannot understand contemporary disease solely through biomedical principles, neither can sociologists be content to understand health and illness in ways that partition those phenomena at singular levels of scale. Beck's formulation of reflexive modernization shows us one path toward more integrated and dynamic theories of health.

While certainly not the only lens through which to examine the integrated and complex relationship of social structure, behavior, and individual outcomes, the relationship between class and health exemplifies the increasingly complex dynamics that contemporary medical sociological theories need to attend. Clearly the multilevel processes by which class affects health are not well understood by isolating them at one level of scale or another. As a macro social structure, class constrains or enables choice and thereby affects health. But where health knowledge is increasingly multi-vocaled, the cognitive frameworks applied in the process of consuming health exert influence on the overall landscape of health as well. In the next section, we explore how these complexities manifest in clinical practice as a way of exemplifying the shifts described above.

The Death of the Clinic: Manifestations of Reflexive Modernity

Whereas the magic bullet hopes of the early twentieth century were extreme even then, penicillin and other antibiotics nonetheless cured an entire spectrum of infections. In the era of reflexive modernity, however, treatments typically emphasize long-term symptom management. This clinical goal reflects the mismatch between old causal models and new disease profiles. Since the etiology of chronic illness often is too complex to intervene in the path between the body and disease itself (as with vaccination, hygiene, antisepsis, and other chemotherapeutic and prophylactic treatments), the lingering modernist model is relegated to treatments that try to disrupt the path between the disease and symptoms emanating from it. Despite being more technologically advanced than ever, medicine arguably engages in increasingly more treating and proportionally less curing because the pathogenesis of chronic illness defies the causal perspective of disease that made medicine such a successful curative endeavor. In turn, contemporary health defies several aspects of modern health care delivery. We have elaborated elsewhere upon several other manifestations of reflexive modernity, including medical education, healthcare financing, and administration (Wasserman and Hinote 2012), but the mismatch between clinical practice and chronic illness provides perhaps the best illustration. Where the divestment of the body from social and cultural contexts gave birth to the clinic (Foucault [1963] 1994), the complex profiles of chronic illness make this approach unsustainable, thereby signaling its death (or at least the death of modernist forms of clinical practice).

The clinic is the traditional, sustainable, and preferable locus of treatment when dealing primarily with pre-transition infectious disorders. However, when the fundamental causes of chronic illnesses are connected to the social contexts in which patients live, the clinic's disengagement from the patient's environment poses substantive challenges that become insurmountable when medical care is quarantined exclusively in the clinic (LoFaso et al. 2010). Perhaps more importantly, while some chronic disorders are given discrete criteria, these usually are created from designated points on a scale (such as levels of cholesterol or blood sugar), not the presence or absence of some *thing* itself (as with a virus, fungus, or bacterium). All persons *have* cholesterol and blood sugar, so the question about how much is too much presents a situation of far greater ambiguity and uncertainty. Physicians' professional philosophies have little effect on the general consensus that an infection exists and should be eradicated. However, despite attempts to create consensus where various oversight bodies draw the lines between acceptable and unacceptable levels of cholesterol, blood sugar, and the like, there remains a high level of disagreement. As a result, a patient that falls in these gray areas is likely to receive different treatment from different physicians. More simply, there is no such thing as a borderline syphilitic, but borderline diabetics are common. This ambiguity is one hallmark of reflexive modernity because it engenders uncertainty that destabilizes calculation, which is then replaced with estimation.

Moreover, even when chronic disorders are discretely diagnosed, it is difficult to understand their causes or what patients are really doing day-to-day to manage them, because these ailments depend on numerous micro-events in a patient's life. Certainly tests such as the hemoglobin A_{1C}—which gives a 3-month weighted average of glycated hemoglobin and therefore a more longitudinal picture of blood sugar than the traditional blood glucose snapshot—can in some way document the veracity of patient reports about lifestyle behaviors. However, complexity pervades and confounds even when such tests are available. For the A_{1C} test, hemoglobin glycation varies on the basis of many factors, including race and age (Bloomgarden 2009). Moreover, the stable statistical correlation of glycogen to glucose within groups has limited explanatory power for any given individual. Put another way, attempts to force causally complex chronic illnesses into an infectious paradigm in clinical practice often end up falling into a reductionist fallacy.

Insofar as they are multifactorial and exhibit far greater variation, treating chronic illnesses like acute disorders requires far greater aggregation, and thus only drifts further away from individual patient care in the clinical setting. Sociology came into existence struggling with this epistemic question. Comte successfully argued that we can understand society and social behaviors scientifically, but only by aggregation, by qualifying statements probabilistically. Similarly, chronic illnesses *can be* understood from a modernist scientific perspective, but only through similar processes of aggregation. Foucault (2003, p. 248) brilliantly captures this problem, writing, "Power has no control over death, but it can control mortality." Yet, while Foucault notes that death itself ultimately is outside the control of social institutions, individual patients seek individual practitioners fundamentally to avoid death. With curable infections, this generally is a sure-footed process typically accomplished with reference to biomedicine. Chronic illness is far more complex and less predictable, and requires incorporation of a broader vision where new conceptualizations of health and illness (including social and behavioral components) are central features of diagnosis, treatment, and doctor-patient communication.

Medical Sociology After the End of Modern Medicine

While Beck's notion of reflexive modernity affords a good characterization of the shifting health landscape and crystallizes its challenges, a related and no less important question concerns the role of medical sociology and social theory in the future. That is, the previously described complexity evident in contemporary health calls for novel analytical approaches from social theorists. Specifically, we address the necessity of reexamining modernist notions of causality in the disease process, bridging seemingly disconnected changes in disease and medical institutions that manifest at the micro-, meso-, and macro-levels of scale, and engaging areas of health and illness that have previously been ignored.

Certainly, many physicians and non-physicians alike note that the profession has grown more and more complex, difficult to navigate, and in need of many changes in the twenty-first century. We see calls for change in several sectors of health care delivery, including primary care and specialization, financing and reimbursement, and medical education. Because they inevitably engage health, the shifting health landscape after the epidemiological transition poses significant consequences for medical professions and institutions. They were, after all, founded on practices that primarily dealt acute illness. Many discussions of the challenges facing contemporary medicine reflect an idiosyncratic vision of how the field is changing, often implying that the problems in a particular area can be approached in ways that are distinct from other dilemmas manifest in medical education, clinical practice, diagnostics, etc. Focusing on the underlying shifts emblematic of reflexive modernity reveals a common basis for the range of challenges in health and medicine, and allows us to connect these phenomena in a more comprehensive way. That is, institutional and professional crises emerge out of deeper changes that appear to signal the literal end of *modern* medicine and the beginning of new and uncharted horizons. For its part, medical sociology must effectively articulate and theorize the changing nature of health, illness, and health care delivery, and in doing so, inform discussion and debate on various issues ranging from health policy to the economics and delivery of care.

Critiques of the biomedical model have existed as long as modern medicine itself. Today, however, it is the physiology and epidemiology of disease that underscore the limitations of traditional biomedicine (Wasserman and Hinote 2011). As described above, this is more than just a maturing of modern medicine. Rather, the fundamental differences between the profiles of chronic and acute diseases suggest a paradigmatic shift in the landscape of health, calling in turn for a corollary shift medicine. Failing to embrace such a shift will promote a time-bound vision of the contemporary challenges facing health and medicine as though they exist independently from each other, promoting an idiosyncratic vision resulting in tepid, piecemeal solutions.

The nature of causality is one problematic at the core of the mismatch between the types of infection on which modern medicine was built and the new kinds of diseases that challenge it today. For infectious disease, suitable causal models have historically centered on proximate pathogenic factors. Explorations into broader contexts like environment typically were limited to where a person contracted an infectious agent (e.g., the water they drank or their associations with other infected people). However, the etiology of chronic illness exhibits a decidedly more complex causal structure. Notably, the cause, progression, and outcome of those diseases significantly depend on “lifestyle,” which signifies the complex interplay of individual choices and social structural chances (Cockerham 2007b). In the chronic illness era, health—or disease—most often results from the dynamic interaction of hundreds of thousands of cumulative individual decisions, all of which are inextricably embedded in complex sets of social opportunities. Along with social and behavioral factors, there is an ambiguous contribution from genetics (see Conrad 2009). Whereas professionals typically diagnose infectious diseases with universal scientific principles applicable to generalized bodies, the pathways of chronic disease are simultaneously related to individual behavior and conditioned by numerous social contexts, making them difficult to assess using the archetypical causal models of modernist medicine.

Bruce Link and Jo Phelan (1995, 2000; Link 2008) provide ample evidence in support of social factors as critical determinants of health and disease (see also, Cockerham 2007b, for more thorough discussion of social causation). They note that while researchers achieved notable success in identifying risk factors for many major disorders, the majority of research focuses upon proximal (rather than distal) causes of disease, many of which disregard social factors, resulting in hyper-individualistic notions of health and illness. Thus, while modern biomedical approaches helped conquer the epidemiological threats of one time and place (simple modernity), they also produced a situation where social contexts assume new significance in shaping health outcomes, a defining feature of reflexive modernity. That is, advances in deciphering the origins and pathways of disease manifest new and more complex ambiguities surrounding novel and increasingly complex pathogeneses. Even survivability after a disease episode is closely associated with these same social contexts (Cockerham 2007b). Conceptualizing health and sickness in a manner that accounts for these complexities helps emphasize the ways that the contemporary epidemiology is increasingly incompatible with approaches that embrace the proximal cause-and-effect causal models of modern medicine.

In turn, theories in health sociology have significant roles to play in multiple areas of discourse, including articulating new formulations of disease causality that bring into focus new causal factors, particularly social and cultural ones, that have been previously underspecified. In addition, theorizing health in reflexive modernity should likely consider novel conceptualizations of causality and employ new archetypical patterns of causal relationships. Modernist medicine and modernist health sociology typically employ linear models of disease causation, but in a period where estimation replaces calculation, the assumption that linear patterns of causality accurately characterize social phenomena should be reexamined. Estimation is influenced more heavily by social, cultural, and psychological factors that may violate some or all of the assumptions underpinning popular forms of sociological analysis in first modernity.

Accordingly, the shifting landscape captured by Beck's notion of incalculable risk opens new avenues of exploration for health sociology. Although reflexive modernity is perhaps most discernible in the epidemiological ascendancy of chronic illness, there is evidence to suggest that the evolution of infectious disease also embodies the kind of complexity that defies the universalizing episteme of modern medicine. While sociological analysis often focuses on disease outcomes in terms of incidence and prevalence, the implications of reflexive modernity suggest that social processes also bring new health threats into existence. Examinations into these processes are typically limited to the medicalization of already existing phenomena (see, for example, Conrad 2005), but in the contemporary period we may also discuss the social processes that actually, in a genuinely physical sense, bring diseases into existence.

Early modernist success in treating bacterial and fungal infections gave rise, epidemiologically, to viral infections and cancers with more complex pathogeneses. Moreover, success in treating viruses and bacteria produced even more complex multi-drug resistant strains (e.g., MRSA—methicillin-resistant Staphylococcus aureus—among others). Cancers display multidimensionality from their position at the juncture of acute and chronic disease, with currently unspecified contributions from lifestyle, genetics, and infection (American Institute for Cancer Research 2001; Ellis 2003; Goedert 2000). Every point on the spectrum of acute disease has undergone its own shift toward increasing etiological complexity (Scheld et al. 2007).

The physiological structures of simpler bacterial and fungal infections fit well with the modernist causal model because they are discrete targets of treatment; as organisms, they stand out against the human host. Alternatively, modern medicine has had less success with the more complex etiologies of viruses and cancer because these interact with bodies in ways that make them more difficult to partition and kill. While complexity on the infectious frontier necessitates fundamental shifts in the nature of medical science and practice, this is all the more true for chronic illnesses, which are now the most significant mortality threats in developed countries. These processes open space for discussing the sociological forces that give rise to the literal existence of diseases, both chronic and infectious. That is, where these diseases result from the success of previous practices and accomplishments of health and medicine, they also reflect a variety of social values and resulting social practices. Where prevalence and even diseases themselves are the reflexive products of choices made about policy, funding, research, and development, sociology can address very literally the social creation of disease—not just as a process of unmasking theoretically latent chronic ailments, but also as producing newer, more complex infections. The choices underlying medical advances also create new health challenges and reflect social values and perspectives. Put simply, diseases, independent of socially demarcated epidemiological prevalence, are becoming increasingly sociological.

In the era of reflexive modernity, health sociology, and medicine as well, must increasingly engage the social factors fundamental to the complex etiology of chronic diseases (as it must also, though perhaps in different ways, for emerging acute ailments with increasingly complex etiologies; Cockerham 2007b; Link and Phelan 1995). While there have long been calls for physicians to be more sociologically aware (McIntire 1894), the relative causal simplicity of many infectious diseases, which gave rise to modern medicine, produced little impetus to do so. However, since the profile of chronic illnesses in reflexive modernity defies the causal logic of first modernity and fundamentally intersects social factors, it is ever more important to address these contexts within diagnosis and treatment (Link and Phelan 1995). Most physicians recognize the social features of doctor-patient relationships, even when such visions are commonly limited to *ad hoc* bedside strategies. Today, however, novel manifestations of chronic disease necessitate greater, deliberate inclusion of sociological influences in the diagnostic and treatment processes themselves (Wasserman and Hinote 2012). This includes serious reconsideration of the fundamental models employed to understand the social causes of health and illness, the classical partitions of sociological phenomena in first modernity (e.g., macro, meso, and micro), and the boundaries within which sociological analysis has been previously relegated.

Conclusion

The concurrent processes of modernization and epidemiological transition set in motion an important series of transformations in health, disease, and health care delivery. As a second, reflexive modernity continues to unfold, we as individuals, and medicine as an institution, face a number of perplexing health, lifestyle, and treatment challenges that stem in large part from the shifting structures and risk profiles of diseases now most often affecting human populations. While the significance of reflexive modernization (as process, action, and period) is often overlooked in medical sociology (with few exceptions), Beck's contributions are important for a number of reasons. First, these ideas offer a useful way to conceptualize ongoing social processes taking place at multiple levels of analysis, from fractured, individuated notions of what it means to be and stay healthy, to increasingly complex causal profiles of disease, to the paradoxes of health care delivery in reflexive modernity. Further, understanding the challenges facing health and medicine in reflexive modernity also engenders awareness of new challenges for health sociology. Accordingly, Beck's ideas serve as conceptual tools that raise questions about the nature of causality and its relationship to complex disease processes, health as inextricably integrated at multiple levels of scale, and social forces as insurgent factors in previously underexplored terrains of disease process.

In emphasizing these paths forward, we assert that a fractured understanding of complex, interrelated phenomena will likely lead to solutions that are minimally successful in confronting the challenges of health and health care delivery in the twenty-first century. Put simply, the logics of simple modernity are increasingly incapable of addressing the structures and prevalence of today's most pressing epidemiological threats, at least not in a way comparable to the heroics of medicine's golden age. Undoubtedly, this age is over. The relatively simple, linear diagnosis and treatment paradigms and the industrial logics of first modernity are no longer sufficient or appropriate for the institutions of health care delivery in reflexive modernity. Rather, a fluid and changing health landscape necessitates a reflexive awareness of the complex interplay of multiple phenomena at multiple analytic levels, so that we may structure the administration and organization of healthcare accordingly. In sum, health sociology is "on the move" in the sense that it is changing alongside the health landscape itself, but also because in reflexive modernity a relevant health sociology must always be dynamic, fluid, and adaptable to match the complex and shifting nature of contemporary health and illness phenomena.

References

Abbott, Andrew. (2004). *Methods of discovery: Heuristics for the social sciences*. New York: W.W. Norton.

Adorno, T. W. [1966] (1973). *Negative Dialectics*. London: Routledge.

American Institute for Cancer Research. (2001). *Nutrition and cancer prevention: New insights into the role of phytochemicals*. New York: Kluwer Academic.

Beck, U. (1992). *Risk society*. London: Sage.

Beck, U. (1994). The Reinvention of politics: Towards a theory of reflexive modernization. In U. Beck, A. Giddens, & S. Lash (Eds.), *Reflexive modernization: Politics, tradition, and aesthetics in the modern social order* (pp. 1–55). Stanford: Stanford University Press.

Beck, U. (1999). *World risk society*. Cambridge: Polity.

Beck, U., Giddens, A., & Lash, S. (Eds.). (1994). *Reflexive modernization: Politics, tradition, and aesthetics in the modern social order*. Stanford: Stanford University Press.

Bellah, R. N., Madsen R., Sullivan W. M., Swidler A., & Tipton S. M. [1988] 2007. *Habits of the heart: Individualism and commitment in American life*. Berkeley: University of California Press.

Bloomgarden, Z. T. (2009). A1C: Recommendations, debates, and questions. *Diabetes Care, 32*, e141–e147.

Bodenheimer, T., Chen, E., & Bennett, H. D. (2009). Confronting the growing burden of chronic disease: Can the U.S. health care workforce do the job? *Health Affairs, 28*, 64–74.

Bourdieu, P. (1984). *Distinction: A social critique of the judgment of taste* (Richard Nice, Trans.). Cambridge: Harvard University Press.

Bourdieu, P. (1990). *The Logic of practice* (Richard R., Trans.). Stanford: Stanford University Press.

Casper, M. L., Elizabeth Barnett, G. Williams, I. Jr., Braham, V. E. & Greenlund K. J. (2003). *Atlas of stroke mortality: Racial, ethnic, and geographic disparities in the United States.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control & Prevention.

Centers for Disease Control and Prevention. (2007). Prevalence of Stroke—United States. *Morbidity and Mortality Weekly Report, 56*, 469–474.

Cockerham, W. (2005). Health lifestyle theory and the convergence of agency and structure. *Journal of Health and Social Behavior, 46*, 51–67.

Cockerham, W. (2006). *Society of risk takers: living life on the edge*. New York: Worth Publishers.

Cockerham, W. (2007a). A note on the fate of postmodern theory and its failure to meet the basic requirements for success in medical sociology. *Social Theory and Health, 5*, 285–296.

Cockerham, W. (2007b). *Social Causes of Health and Disease*. Cambridge: Polity Press.

Cockerham, W., & Hinote, B. P. (2009). Quantifying habitus: Future directions. In K. Robson & C. Sanders (Eds.), *Quantifying theory: Pierre Bourdieu* (pp. 199–208). Dordrecht: Springer.

Conrad, P. (2005). The shifting engines of medicalization. *Journal of Health and Social Behavior, 46*, 3–14.

Conrad, P. (2009). A mirage of genes. In P. Conrad (Ed.), *The sociology of health and illness: Critical perspective* (pp. 438–447). New York: Worth Publishers.

Dubos, R. (1959). *Mirage of health*. New York: Harper & Row.

Duffy, J. (1993). *From humors to medical science: A history of American medicine*. Champaign: University of Illinois Press.

Ellis, C. N. (Ed.). (2003). *Inherited cancer syndromes: Current clinical management*. New York: Springer.

Foucault, M. [1963] 1994. *The Birth of the clinic: An archaeology of medical perception*. New York: Vintage Books.

Foucault, Michel. (2003). *Society must be defended: Lectures at the collège de France, 1975–1976*. New York: Picador Press.

Gallup (2007). Gallup finds increase in independents, typical of off-years. August 2, from www.gallup.com.

Giddens, A. (1984). *The constitution of society: Outline of a theory of structuration*. Berkeley: University of California Press.

Giddens, A. (1991). *Modernity and self-identity: Self and society in the late modern age*. Stanford: Stanford University Press.

Goedert, J. J. (Ed.). (2000). *Infectious causes of cancer: Targets for intervention*. Towtowa: Humana Press.

Horkheimer, M., & Adorno, T. W. [1944] 2000. *Dialectic of enlightenment*. New York: Continuum.

Keely, B., Wright, L., & Condit, C. M. (2009). Functions of health fatalism: Fatalistic talk as face saving, uncertainty management, stress relief, and sense making. *Sociology of Health & Illness, 31*, 734–747.

Link, B. G. (2008). Epidemiological sociology and the social shaping of population health. *Journal of Health and Social Behavior, 49*, 367–384.

Link, B. G., & Phelan, J. (1995). Social conditions as fundamental causes of disease. *Journal of Health and Social Behavior, 35*(Extra Issue), 80–94.

Link, B. G., & Phelan, J. (2000). Evaluating the fundamental cause explanation for social disparities in health. In C. E. Bird, P. Conrad, & A. M. Fremont (Eds.), *Handbook of medical sociology* (pp. 33–46). Upper Saddle River: Prentice Hall.

Lock, M., & Nguyen, V.-K. (2010). *An anthropology of biomedicine*. United Kingdom: Wiley-Blackwell.

LoFaso, V. M., Breckman, R., Capello, C. F., Demopoulos, B., & Adelman, R. D. (2010). Combining the creative arts and the house call to teach medical students about chronic illness care. *Journal of the American Geriatric Society, 58*, 346–351.

Macintyre, S., Ellaway, A. A., & Cummins, S. (2002). Place effects on health: How can we conceptualise, operationalise and measure them. *Social Science and Medicine, 55*, 125–139.

Mahar, M. (2006). *Money-driven medicine: The reason health care costs so much*. New York: HarperCollins.

Marx, K., & Engels, F. [1848] 1998. *The Communist Manifesto*. London: Verso.

Marx, K., & Engels, F. (1976). *The German ideology*. Moscow: Progress Publishers.

McIntire, C. (1894). The importance of the study of medical sociology. *Bulletin of the American Academy of Medicine, 1*, 425–434.

Michael, S. W., Hooper, D. C., & Hughes, J. M. (Eds.). (2007). *Emerging infections*. Washington: ASM Press.

Olshansky, S. J., Antonucci, T., Berkman, L., Binstock, R. H., Boersch-Supan, A., Cacioppo, J. T., et al. (2012). Differences in life expectancy due to race and educational differences are widening and many may not catch up. *Health Affairs, 31*, 803–813.

Omran, A. R. (1971). The epidemiologic transition: A theory of the epidemiology of population change. *Milbank Memorial Fund Quarterly, 49*, 509–538.

Paez, K. A., Zhao, L., & Hwang, W. (2009). Rising out-of-pocket spending for chronic conditions: A ten-year trend. *Health Affairs, 28*, 15–25.

Pew Research Center. (2011). Beyond red vs. blue: The political typology. Pew Research Center, Released May 4. Retrieved February 1, 2012, from www.people-press.org.

The Harris Poll (2005). Party affiliation and political philosophy show little change, according to national Harris poll. *The Harris Poll* 19, March 9, 2005, www.harrisinteractive.com.

Tulloch, J., & Lupton, D. (2003). *Risk and everyday life*. London: Sage Publications.

Turner, B. S. (1995). *Medical power and social knowledge*. London: Sage Publications.

Wasserman, J. A. (2009). But where do we go from here? A reply to Tomso on the state and direction of postmodern theory. *Social Theory and Health, 7*, 78–80.

Wasserman, J. A., & Hinote, B. P. (2011). Chronic illness as incalculable risk: scientific uncertainty and social transformations in medicine. *Social Theory and Health, 9*, 41–58.

Wasserman, J. A., & Hinote, B. P. (2012). The end of modern medicine: The evolution of disease and transformations in medical practice. *Journal of Healthcare, Science and the Humanities, 2*, 145–156.

Weber, M. [1922] 1978. *Economy and Society.* Berkeley: University of California Press.

Welch, H. G., Schwartz, L. M., & Woloshin, S. (2011). *Overdiagnosed: Making people sick in the pursuit of health*. Boston: Beacon Press.

Witkop, B. (1999). Paul Ehrlich and his magic bullets—revisited. *Proceedings of the American Philosophical Society, 143*, 540–557.

Chapter 12
Social Capital and Health

Lijun Song

"The real nature of man is the totality of social relations" (Marx 1963, p. 83). All individuals dwell in a network of social relationships. Their health conditions can be contingent on structural attributes of their network contexts. Since Durkheim's classic study on suicide ([1897] 1951), there has been a long research tradition on diverse aspects of social relationships and health in sociology and other social sciences (for reviews see Berkman et al. 2000; House et al. 1988; Pescosolido and Levy 2002; Smith and Christakis 2008; Song et al. 2011; Umberson and Montez 2010). In the last two decades social capital has grown into one of the most popular but controversial relationship-based theoretical tools in the multidisciplinary health literature.

Although only recently achieving its popularity, the idea of social capital has a long history in the social sciences. Its intellectual origins are controversial (Islam et al. 2006; Macinko and Starfield 2001). Some quote sociological predecessors, including Emile Durkheim, Talcott Parsons, Karl Marx, Frederick Engels, Max Weber, and Georg Simmel, for their insights into this concept (Portes and Sensenbrenner 1993; Turner 2003). Some attribute this idea to the legacy of economists, such as David Hume, Edmund Burke, and Adam Smith (Woolcock 1998). Others identify the philosophy of John Dewey as the central source of social capital (Farr 2004). According to Putnam (2000), the term social capital itself first appeared in a 1916 article by Lyda Judson Hanifan on a rural school community center (Hanifan 1916).

Despite its contentious intellectual roots, there is general consensus that four key figures popularized the concept of social capital and stimulated its theoretical development during the 1980s and the early 1990s, including three sociologists,

---

L. Song (✉)
Department of Sociology, Center for Medicine, Health, and Society, Vanderbilt University,
Nashville, TN, USA
e-mail: lijun.song@vanderbilt.edu

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3_12, © Springer Science + Business Media Dordrecht 2013

Bourdieu (1986)[1983], Lin (1982, 2001a), and Coleman (1988, 1990), and one political scientist, Putnam (1993, 2000). Those four scholars offer relationship-based but distinctive definitions of social capital, which unavoidably lead to its controversial operationalizations and measurements. As in other fields, social capital as a theoretical tool has easily gained burgeoning acceptance in the health sciences (for reviews see Almedom 2005; De Silva et al. 2005; Hawe and Shiell 2000; Kawachi et al. 2008; Song et al. 2010). The annual number of published articles with "social capital" and "health" in their topics jumped from two at the very beginning of 1990s to 140 in the late 2000s (Song et al. 2010). Despite the substantial development of this literature, Putnam's notion of social capital absorbed by public health researchers has dominated the field. The original contributions of alternative sociological theories have been relatively understated.

The purpose of this chapter is to introduce the major theoretical approaches to social capital advanced by Bourdieu, Lin, Coleman, and Putnam, and review the theoretical extension and empirical application of those different perspectives to health from a sociological lens. This chapter concludes with a discussion of issues and future research directions.

Social Capital: Diverse Relationship-Based Theories

Bourdieu: Resources Linked to Durable Social Networks

Bourdieu is the pioneer in the conceptualization of social capital. He introduced this concept in his French version of *Distinction* in 1979 (Adam and Rončević 2003; Bourdieu 1984). His theory on social capital was originally published in French in 1983, and translated into English for the first time in 1986. As a conflict theorist, Bourdieu was interested in what social constraints in society lead to unequal structural opportunities for status attainment and how. He argued that social structure and its functioning over time are determined by the unequal acquisition and accumulation of capital in all three fundamental forms—economic, cultural, and social—between the dominant and dominated classes. He analyzed other forms of capital as sources of and returns to social capital. He discussed the mechanisms of the production and reproduction of social capital. However, he did not specify measurements of social capital.

Bourdieu was concerned with fundamental causes of social stratification. He argued that it is the unequal distribution of capital in all forms between social classes that accounts for the production and reproduction of social structure. Capital is "accumulated labor" allowing its possessors to "appropriate social energy in the form of reified or living labor" (1986 [1983], p. 241). Although criticizing economic theories for reducing diverse types of exchanges and capital into mercantile exchange and economic capital, Bourdieu emphasized economic capital as the root of other forms of capital, and highlighted another two essential forms of capital that operate together with economic capital to generate unequal profits: cultural and social

(1986 [1983], pp. 242–248). Both economic and cultural capital are privately owned. Economic capital is material goods invested in mercantile exchanges for monetary profits. Cultural capital consists of three subforms: the embodied state (i.e., habitus, that is, "long-lasting dispositions of the mind and body"), the objectified state (i.e., cultural goods), and the institutionalized state (i.e., educational credentials).

In contrast, social capital is embedded in networks of social relationships. It is

> the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition—or in other words, to membership in a group—which provides each of its members with the backing of the collectivity-owned capital, a 'credential' which entitles them to credit, in the various senses of the word (Bourdieu 1986 [1983], pp. 248–249).

Networks of relationships can spread across multiple forms of space. They are "based on indissolubly material and symbolic exchanges" and "partially irreducible to objective relations of proximity in physical (geographical) space or even in economic and social space" (Bourdieu 1986 [1983], p. 249). The volume of social capital to which an individual has access depends on two elements: "the size of the network of connections he can effectively mobilize" and "the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected" (Bourdieu 1986 [1983], p. 249). Bourdieu did not further specify measurements of social capital.

Bourdieu analyzed other forms of capital as sources of and returns to social capital. According to him, the foundation of capital reproduction, and thus stratification reproduction, is the conversion of capital from one form to another that aims at concealing the intergenerational transmission of economic capital among the dominant class (1986 [1983], pp. 249–255). Economic capital is convertible into social capital in that monetary investment is usually required in sociability. Cultural capital can change into social capital in that class-based habitus (e.g., relational disposition) and schooling can help establish and maintain social relationships. In turn, social capital can generate material profits in the forms of goods and services, part of which is economic capital. Social capital can transform into cultural capital (i.e., symbolic profits from being associated with prestigious groups). Despite such convertibility, social capital exerts its unique effects independently from other forms of capital.

> These effects, in which spontaneous sociology readily perceives the work of 'connections,' are particularly visible in all cases in which different individuals obtain very unequal profits from virtually equivalent (economic or cultural) capital, depending on the extent to which they can mobilize by proxy the capital of a group (a family, the alumni of an elite school, a select club, the aristocracy, etc.) that is more or less constituted as such and more or less rich in capital (Bourdieu 1986 [1983], p. 256).

The production and reproduction of social capital depends on the institution and maintenance of networks of relationships. It requires the use of "investment strategies, individual or collective, consciously or unconsciously aimed at establishing or reproducing social relationships that are directly usable in the short or long term" (Bourdieu 1986 [1983], p. 249). In order for an individual to accumulate and reproduce social capital, the strategy of continuous sociability is required.

In order for a group—a network of relationships—to exist and persist, the concentration of within-group social capital is required through the strategy of institutionalized delegation in that a representative is authorized to defend collective interests and exclude members whose mistakes threaten group interests, while institutionalized representation may lead to the embezzlement of social capital. In order for "limits of the group"—boundaries of the network of relationships—to be reproduced, the strategy of perpetual exchanges and reinforced mutual recognition among the members is required. These exchanges are further carried out through the strategy of social exclusion. Instituted groups legitimate and encourage exchanges between homogeneous individuals (Bourdieu 1986 [1983], pp. 249–251).

Lin: Resources Embedded in Social Networks

Lin's book on social capital appeared in 2001, providing a fully developed theoretical scheme (Lin 2001a). His theory builds upon the original theory of social resources—"resources embedded in one's social network…accessible through one's direct and indirect ties"—that he and colleagues gradually developed in the late 1970s and early 1980s (Lin 1982, p. 132; Lin et al. 1978; Lin et al. 1981). His framework of social capital is rooted in the classic research tradition on capital. He differentiates two types of social capital from its structural and networking sources at the micro- and meso-levels, its mechanisms, and its instrumental and expressive returns. He also offers an empirically falsifiable operationalization and measurement instrument of social capital.

Social capital is "resources embedded in a social structure that are accessed and/or mobilized in purposive actions" (Lin 2001a, p. 29). Social structures include both formal hierarchical structures (e.g., organizations) and less formal social networks. Lin's definition of social capital is grounded in the classic tradition of personal capital theories (e.g., Marx's capital, human capital, cultural capital). Both personal and social capital are valuable asset, but the former is under the control of individuals themselves, while the latter is under the possession of individuals' network members. Lin operationalizes social capital narrowly and strictly as "resources (e.g., wealth, power, and reputation, as well as social networks) of other individual actors to whom an individual actor can gain access through direct or indirect social ties" including ties in the cyberspaces especially on the Internet (2001a, p. 43). In a presumed hierarchical social structure in the shape of a pyramid, resource allocation depends on structural positions. The amount of individuals' social capital hinges in general upon structural positions, occupational positions in particular (Blau and Duncan 1967), of their social network members, including those in cyberspace.

Lin (2001b) distinguishes two types of social capital: contact resources and network resources. The former refers to resources from network members that individuals mobilize in their own purposive actions, indicated by resources of contacts that individuals use in purposive actions. The latter corresponds to resources available from network members to whom individuals have access. To capture network resources, Lin and colleagues developed a position generator to map positional networks (Lin and Dumin 1986; Lin et al.2001), which are not constrained by tie strength, geographical location, content, and homogeneity (Lin 2008; Lin et al. 2001). This instrument asks respondents to identify their contacts associated with a representative sample of occupational positions salient in a society. If respondents know several people in that type of position, they are usually asked to name the one that occurs to them first. Three social capital indices are usually created: extensity (the total number of positions in which respondents identify one contact), upper reachability (the highest prestige score of occupations to which respondents have access), and range of difference between the highest and lowest prestige scores of occupations to which respondents have access.

Network resources can also be derived from two other network instruments: the name generator and the resource generator. The name generator maps personal networks (McCallister and Fischer 1978). It asks respondents to name a fixed number of contacts (usually five) with whom they discuss important matters (Burt 1984). Similar to the position generator, it may calculate social capital, for example, based on socioeconomic attributes of named contacts. The resource generator (Snijders 1999; Van der Gaag and Snijders 2005) directly maps resource networks. It asks respondents to identify contacts associated with a fixed list of useful and concrete social resources across multiple life domains. It measures social capital as the sum score of access to all different resources. The position generator proves to be generalized across societies due to its association with the occupational structures common in modern societies; it is more flexible, useful, and efficient in describing access to social capital than the name generator and the resource generator (Lin 1999; Song and Lin 2009; Van der Gaag, et al. 2008).

Social capital stems from two sources: structural and networking (Lin 2001a). Structural sources include an individual's earlier hierarchical roles or positions, both ascribed (e.g., gender, race, family origins) and achieved (e.g., prior socioeconomic status). Higher previous social positions lead to greater social capital. Networking sources consist of tie strength and network location. Weak ties and closeness to a social bridge in social networks create more social capital (Burt 1992; Granovetter 1973). Furthermore, the positive impacts of social positions and closeness to a social bridge on social capital are contingent on three macro-level structural factors: the number of hierarchical levels, the equal number of occupants across levels, and the resource differential across levels (Lin 2001a). The positive effect of social positions is moderated negatively by the first two structural factors and positively by the third one, while that of closeness to a social bridge is moderated by these structural factors in the opposite direction.

Social capital exerts both main and moderating effects (Lin 2001a). It generates instrumental (e.g., wealth, power, and reputation) and expressive (e.g., health and life satisfaction) returns through four mechanisms: providing information, exerting influence, acting as social credentials, and reinforcing group identity and recognition (Lin 2001a). This effect interplays with tie strength. Social capital derived from weak ties creates more instrumental returns, while social capital embedded in strong ties produces more expressive returns. Also, instrumental returns and expressive returns fortify each other.

There is a reciprocal relationship between social capital and macro-level “institutional fields” (Lin 2001a). On the one hand, an institutional field regulates and constrains its members’ access to and use of social capital by legitimating certain social norms of social interaction. On the other hand, individual members can establish alternative norms and transform the existing institutional field through activating and mobilizing social capital.

Lin’s initial efforts were geared more toward an individual-level conceptualization of social capital. Recently, he extends his original theory to the macro-level (Lin 2008). He defined two forms of social capital for a collectivity. Internal social capital is resources provided by members within a collectivity (i.e., associations, organizations, communities, regions, or nation-states), and external social capital refers to resources accessible from other collectivities with which the focal collectivity is networked.

Coleman: Functional Social-Structural Resources

It is Coleman’s (1988) systematic examination of social capital and its positive role in the creation of human capital that called multidisciplinary attention to this term. Then, in his masterwork on *Foundations of Social Theory* (1990), Coleman devoted one chapter to analyzing social capital, including its functionalist definition, multiple operationalizations, and structural sources at the meso- and macro-levels. Coleman was a functionalist theorist. He emphasized the positive functions of social capital and its quality as a public good, that is, its generation of positive returns to every member in a collectivity.

After criticizing neoclassical economics for the individualist bias in prioritizing self-interests and personal independence, Coleman highlighted the inevitability of social interdependence by drawing on research on social relationships including Bourdieu’s work on social capital and Lin’s work on social resources. He conceptualized social capital as functional “social-structural resources” embodied in structures of social relations:

> Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of a social structure, and they facilitate certain actions of individuals who are within that structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence (1990, p. 302).

He justified such a broad conception by its utility in explaining multiple outcomes and bridging the micro- and macro-levels.

A catch-all functionalist conceptualization inevitably opens the door to multiple operationalizations. Coleman (1990) proposed six forms of social capital that meet the two standards of his definition (inherent in the structure of social relations and performance of facilitating functions): (1) obligations and expectations of reciprocity and trustworthiness (i.e., individuals do things for each other and trust each other to reciprocate in the future) that can establish a pool of credit slips for future drawing; (2) information potential from social relations; (3) norms (in particular "a prescriptive norm … that one should forgo self-interests to act in the interests of the collectivity" [1990, p. 311]) and effective sanctions that regulate individual behaviors and attitudes within a collectivity; (4) authority relations (i.e., transference of rights of control from individuals into an authority leader) that can solve common problems; (5) appropriable social organizations (i.e., organizations that can be used for other purposes beyond their original goals); and (6) intentional organizations (i.e., organizations that not only benefit their participants but also nonparticipants).

Coleman did not offer specific measurements for each form. He was actually hesitant about the value of social capital as a quantifiable concept (Coleman 1990; Lin 2001a). In his quantitative research on the association of social capital with human capital (low level of dropout among high school sophomores) (1988), he operationalized family social capital as the strength of the parent–child relationship, indicated by the presence of parents, the number of siblings, mother's expectation for child's education, and the frequency of talking with parents about personal experience. He quantified community social capital as the strength of relationships among parents and between parents and the community, indicated by schools' religious affiliation and students' religious attendance.

Coleman (1990) also discussed five macro-level structural preconditions for the quantity of social capital: network closure, stability of social structure, collectivist ideology, affluence, and government support. The first three conditions have positive associations with social capital respectively through nurturing norms and trustworthiness, maintaining social organizations and relationships, and encouraging unselfish behaviors, although extreme network closure could damage social capital instead. The last two conditions decrease social capital by increasing interpersonal independence and eroding social relationship maintenance.

Coleman held that social capital functions in both positive and negative directions and at both individual and collective levels. However, he emphasized the positive functions of most forms of social capital for the collective, while admitting some forms of social capital such as norms could also constrict some actions (1990, p. 311). Also, in contrast with financial (i.e., money), physical (i.e., material objects), and human (i.e., skills and knowledge) capital that can only be privately owned, Coleman (1990) argued social capital is not a private property of individual beneficiaries but a property of social structure. It favors not only purposive investors in a structure, but also all the members of that structure, as a public good. Coleman's (1988) empirical research focuses on the positive role of social capital in educational attainment. He only briefly illuminated the importance of social capital in the health care process, mentioning that the lack of social capital (i.e., trust) between patients and physicians increases costs of—and decreases access to—medical care (1990).

Putnam: Facilitating Features of Social Organization

Putnam's work on social capital and its association with democracy appeared in 1993. It is his 1995 article, "Bowling Alone," and its expansion into a book of the same main title in 2000 that popularized the term social capital beyond the academic community, making it a part of public discourse. Acknowledging prior research on social capital including the work of Bourdieu and Coleman, Putnam proposes his functionalist definition and mixed operationalizations of social capital, and develops a state-level social capital index. He distinguishes two types of social capital and emphasizes positive returns to social capital as a public good. He analyzes macro-level structural sources and returns of social capital.

As a political scientist, Putnam is concerned about the declining intensity of civic, political, and social life in the United States. In his earlier functionalist definition, social capital refers to "features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions" (Putnam 1993, p. 167). In his later work, Putnam decomposes social capital into three notions: "social networks and the norms of reciprocity and trustworthiness that arise from them" (2000, p. 19). Putnam emphasizes the importance of the relationships between these three components of social capital, but leaves their causal relations for future research (2000, p. 137). According to Putnam, social networks are composed of formal social connections (e.g., memberships and participation in formal organizations and activities, such as political, educational, recreational, religious, and professional organizations and activities, and connections in the workplace) and informal social connections (e.g., participation with family, friends, and neighbors in informal social and leisure activities). Networks of social connections can increase productivity of individuals and reinforce norms of reciprocity. Similar to Coleman's explanation, the norms of generalized reciprocity mean that "I'll do this for you without expecting anything specific back from you in the confident expectation that someone else will do something for me down the road" (Putnam 2000, p. 21). The norms of reciprocity as a community asset can increase efficiency. Social trust (i.e., trust in other people) can lubricate social life. Besides, he included other consequences of networks such as altruism, volunteering, and philanthropy as alternative indicators of social capital. Putnam also developed a state-level social capital index, containing 14 items covering areas such as community organizational life, engagement in public affairs, community volunteerism, informal sociability, and social trust (Putnam 2000).

Putnam (2000) distinguishes two subtypes of social capital: bonding and bridging. Bonding social capital exists in relationships connecting homogeneous individuals, while bridging social capital lies in connections linking heterogeneous persons. Also, bonding social capital works for enhancing within-group reciprocity and solidarity, while bridging social capital helps obtain goods from outside groups. Putnam emphasizes the positive functions of both types of social capital, while admitting that bonding social capital may lead to between-group enmity. This typology has been critiqued from a strict social network perspective since bonding and bridging are properties of social networks instead of social capital (Lin 2008).

Putnam emphasizes positive functions of social capital at two levels: individual and collective. Social capital is both a "private good" and a "public good" (Putnam 2000, p. 20). One's investment in social capital not only benefits oneself, but also spills over to others. Putnam recognized that functions of social capital are sometimes negative for those outside of a given network if social capital is used for antisocial purposes, even while generally positive for those within that network.

Putnam reports an overall decline of social capital in American society based on his preliminary bivariate correlation analyses. He attributes that decline to multiple macro-level factors, such as pressures of time and money, residential mobility and sprawl, electronic entertainment, and generational change (2000). He highlights the potential of small groups, social movements, and telecommunications including the Internet to offset that decline. He discusses positive associations of social capital with education and children's welfare, neighborhood safety and productivity, economic development, health and happiness, democracy, and tolerance and equality. Drawing on previous research on network-based concepts such as social integration, social cohesion, and health, Putnam argues for health returns to social capital without explicitly distinguishing social capital from those concepts. He reports correlations of social capital at the state level with public health and mortality, and of social connections at the individual level with happiness (2000).

Synthesis: Two Schools of Social Capital Theories

To summarize, all four of the aforementioned scholars agreed that social capital contains resources derived from the structure of social relationships, and that it operates effectively net of personal capital such as economic capital, human capital, and cultural capital (Lin 2001a). However, their definitions and operationalizations diverge from one another. Two schools can be distinguished (Song et al. 2010).[1]

Bourdieu and Lin exemplify a network-based approach that is deeply rooted in the stratification research tradition in sociology. They define social capital as a relational asset available to individuals, and identify it as one independent stratifier, parallel to other forms of capital, in the production and reproduction of the hierarchical social structure. Their approach is more refined and strict,

---

[1] The division of schools is controversial. For example, Adam and Ronćević (2003) distinguish three schools: Bourdieu's approach, Lin's utilitarian network-based approach, and the normative approach of Coleman and Putnam. Moore et al. (2005) discern two schools: the network approach of Coleman and Bourdieu, and the communitarian approach of Putnam. Kawachi et al. (2008) seem to classify two approaches: the social cohesion school of Coleman and Putnam, and the network school of Bourdieu and Lin.

distinguishing social capital from its antecedents and yields for individuals from a conflict perspective (Adam and Rončević 2003; Portes 1998). They discuss the interplay between personal and social capital. They assert that networks are preconditions of social capital and exist across multiple contexts. Lin develops a methodological instrument to measure social capital embedded in social networks. Bourdieu did not discuss measurements, but his proposed elements of social capital (i.e., network size, personal capital of network members) are consistent with social capital indices derived from the position generator. One major difference between Bourdieu and Lin lies in the creation process of social capital (Lin 2001a). Bourdieu valued network closure and social exclusion while Lin emphasizes network bridging. Also, Lin pays more attention to macro-level institutional arrangements: their reciprocal relationship with social capital and their interaction effect with causes of social capital. In addition, Lin (2001a) specifies collective assets such as trust and norms as determinants instead of elements of social capital, as in the work of Coleman and Putnam.

Coleman and Putnam represent a normative approach that is closely intertwined with the functionalist research tradition in sociology. They highlight both underlined moral norms such as trust and reciprocity as two forms of social capital. They tend to measure social capital at the collective level and emphasize its positive function as a public good while recognizing its private good aspect. Their conceptualizations and operationalizations of social capital are broad. They label multiple related but distinctive concepts as social capital without analyzing their relationships to each other, and mingle social capital with its sources and outcomes (Lin 2001a; Portes 1998). One major distinction between Coleman and Putnam exists in their causal arguments on social networks. Coleman used networks as sources of social capital, while Putnam subsumes networks under the umbrella of social capital. In addition, Coleman's argument on the definition of social capital by its functions is criticized for its tautology (Lin 2001a). Next, I review theoretical and empirical applications of each framework in the health literature.

Social Capital and Health: Theoretical Extension and Empirical Evidence

Bourdieu: Controversial Applications

Although Bourdieu's seminal theory of social capital receives overwhelming recognition, its direct applications in the health literature are limited. Available quantitative and qualitative examination of his theory further raises theoretical and methodological debates, primarily because Bourdieu did not explicitly offer his measurement of social capital. Ziersch and colleagues (2005) extend Bourdieu's conceptualization using Australian community data. They highlight the theoretical utility of Bourdieu's work for individual-level inequality research, in contrast with Putnam's focus on the collective-level social capital as a public good (Ziersch et al. 2005), and for distinguishing sources and consequences of social capital (Ziersch 2005). Ziersch and colleagues (2005) construct five indicators of neighborhood-based social capital: neighborhood connections, neighborhood trust, reciprocity, neighborhood safety, and local civic action. These researchers find positive associations of neighborhood safety with physical and mental health and of neighborhood connections with mental health. Ziersch (2005) distinguishes social capital infrastructure from social capital resources. She uses three measurements for the former (i.e., informal networks, formal networks, and values such as trust, reciprocity, and safety), and four measurements for the latter (i.e., help, acceptance, civic actions, and control). Among these seven measurements, values, informal networks, help, and control are—either directly or indirectly—positively associated with mental health, but none are associated with physical health.

Carpiano (2006) constructs a Bourdieu-based conceptual model of neighborhood social capital for health. Like Ziersch (2005), Carpiano praises Bourdieu's theory for distinguishing social capital from its sources and outcomes. He suggests that, from a sociological perspective, we use social capital exclusively for network resources as Bourdieu conceived, and that Putnam's notion of social capital based on social cohesion should be seen as a precondition of social capital. He makes efforts to distinguish social capital from its sources (e.g., neighborhood socioeconomic conditions, social cohesion) and outcomes. He uses connectedness and values such as trust and familiarity to indicate Putnam's social cohesion. He uses four measures to indicate Bourdieu's social capital, including neighborhood organization participation, informal social control, social support, and social leverage (i.e., neighbors ask each other for advice). He also adds neighborhood attachment in his model, which is hypothesized to moderate the social capital effect. His two empirical studies analyze community data collected in Los Angeles. In one study on adults (Carpiano 2007), he finds unexpected positive associations of social support with daily smoking and binge drinking, negative association of social leverage with daily smoking, negative association of informal social control with binge drinking, and no associations of either social capital indicator with perceived health. He also shows evidence that neighborhood attachment interacts positively with informal social control and negatively with neighborhood organization participation for perceived health. In another study on female caregivers (Carpiano 2008), he reports an unexpected positive association of social support with daily smoking, negative association of social leverage with daily smoking, and positive association of neighborhood organization participation with perceived health. Neighborhood attachment interplays negatively with social leverage for perceived health and with informal social control for daily smoking.

Stephens (2008) points out that Bourdieu's work advances our understanding of health inequality in broader social connections beyond neighborhoods, in interrelationships of economic, cultural, and social capital, and in the social exclusion process. She credits the above quantitative applications for their efforts to disentangle sources and outcomes of social capital. She further criticizes them for constraining attention to geographical locations and measuring social capital as existing concepts using secondary data. She employs a qualitative method to document social connections in three neighborhoods in New Zealand and reports evidence for the existence of social networks beyond geographical community. She shows that personal and community capital is convertible to social networks. Interviewees from different individual and community socioeconomic backgrounds had different social connections for different needs. She also finds evidence for health-relevant returns to social capital when some interviewees participated in voluntary groups in order to offset the loss of services including health services. Stephens (2008) takes an extreme position that social capital cannot be quantified at the individual level.

Lin: The Confirmed Bright Side and the Emerging Dark Side

The concept of social capital developed by Lin has stimulated substantial studies on status attainment. The positive impact of prior social positions on social capital, as well as the positive socioeconomic returns to social capital, have been well documented across societies (for a review, see Lin 1999). Health returns to social capital, though, have received relatively less attention. Most available studies report findings in support of the positive health effect of social capital, while a couple of the most recent studies show results indicating its negative health consequences.

To extend Lin's theory of social capital as social resources, social capital can protect health through many possible mechanisms (Erickson 2003; Song 2011): exerting influence on macro-level health policies and micro-level access to health services and resources; providing diverse forms of social support (e.g., informational, emotional, and material); acting as social credentials in accessing health resources; encouraging engagement in healthy norms and behaviors; decreasing exposure to social stressors; advancing objective and subjective social status; and reinforcing psychological resources.

Also, social capital may interplay with personal capital with two possibilities (Song and Lin 2009). One hypothesis is the compensation effect proposition. Individuals lacking personal capital are more motivated to resort to social capital, and thus receive more health benefits from social capital. An alternative hypothesis is the cumulative advantage proposition. Individuals with more personal capital are more able to successfully mobilize social capital, thus receiving more health resources from social capital.

Nine quantitative studies on diverse health outcomes have contributed to investigating the theory and methodology of social capital in different societies. Four of them study the U.S. society. Two of these studies draw national representative data from the General Social Survey and measure social capital through the name generator. One study reports that social capital—the mean educational level of one's network members— is positively related to life satisfaction and negatively associated with anomie (Acock and Hurlbert 1993). The other study shows that social capital—average education of network members and proportion of network members with a high school degree or higher—is positively associated with frequency of health information seeking and seekers' frequency of use of two sources (friends or relatives and the Internet), and also that average education of network members is positively associated with seekers' diversity of used sources and frequency of consultation with medical professionals (Song and Chang 2012). The third study analyzes longitudinal community data and demonstrates that individuals are more likely to quit smoking if their friends with more education stop smoking, implying that social capital indicated by friends' education enhances smoking cessation (Christakis and Fowler 2008). The fourth study uses national representative data of adults, and finds that social capital indicated by the average prestige scores of accessed occupations measured through the position generator is negatively associated with psychological distress, and part of that effect is indirect through subjective social status (Song 2011a). Also it reports that social capital acts as a mediator linking other structural factors (i.e., age, gender, race/ethnicity, education, occupational prestige, family income, and voluntary participation) with psychological distress.

Two studies analyze community data in Canada, and measure social capital through the position generator. One of these studies constructs a latent social capital factor derived from three observed indices (extensity, higher reachability, and range), and finds a negative association between social capital and the likelihood of elevated waist circumference risk and being overweight (Moore et al. 2009). The second study measures inside- and outside-neighborhood social capital indices including extensity, higher reachability and range, and reports one positive association between outside-neighborhood extensity and self-reported health (Moore et al. 2011).

Two studies investigate data representative of the island of Taiwan. Each study calculates social capital as a latent factor derived from three observed indices (extensity, upper reachability, and range) measured through the position generator. One study shows that social capital is associated with a smaller degree of psychological distress and a greater level of self-reported health, and that the negative association between social capital and psychological distress is stronger for the less-educated (Song and Lin 2009). The second study finds positive associations of social capital with self-rated physical health, psychological health, and social health (Yang et al. 2011).

Another study of community data in the United Kingdom finds that social capital—the access to domestic resources, expert advice, personal skills, and problem-solving resources from network members measured through the resource generator—is negatively associated with the incidence of common mental disorders (Webber and Huxley 2007).

Social capital embedded in electronic networks also receives attention nowadays. For example, Drentea and Moren-Cross (2005) employ a mixed-method approach to study a mothering board on a website for parents. As they report, social capital embedded in online mothers' networks may influence mothers' and their children's health indirectly by providing emotional support and instrumental support such as informal health information sharing.

Despite the above confirmed bright side of social capital, three recent studies are challenging the original social resource assumption and propose two arguments for the dark side of social capital: the stressful cost of maintaining social networks where social capital is embedded (Moore et al. 2009) and the stressful relative deprivation due to negative self-evaluation in comparison with resource-rich network members (Song 2011b, forthcoming). All three studies measure three social capital indices (extensity, higher reachability, and range) through the position generator. One study uses community data collected in Canada, and finds that the association between social capital—a latent factor derived from these three indices—and sense of mastery is positive for people with more education (a high school degree or more), but negative for less-educated persons (Moore et al. 2009). Its findings indicate that social capital may injure the mental health of the disadvantaged through threatening their sense of mastery. The other two studies examine the institutional contingency of health and well-being impacts of social capital using national representative data of adults in the United States, urban China, and Taiwan. The first study compares the United States and urban China, and reports positive effects of three social capital indices on psychological distress and self-reported health limitation in both societies (Song 2011b). Also, social capital exerts a stronger positive effect on self-reported health limitation in China than in the United States, which may be due to the greater degree of social inequality in urban China. The third study compares the impact of social capital on satisfaction with six life domains in all three societies (Song Forthcoming). In general it finds evidence for the social resource argument in people's satisfaction with private life domains in urban China and Taiwan and for the relative deprivation argument in people's satisfaction with public life domains in urban China and the United States. Varying findings across societies are attributed to two institutional factors including relational culture and inequality structure. Different findings by life domain are attributed to the higher chance of negative social comparison in the public domain.

Coleman: Mixed Evidence for Collective Efficacy Theory

Coleman's social capital has been broadly applied to educational attainment, but not to health outcomes. Sociologist Sampson and colleagues have contributed to extending Coleman's work by developing a neighborhood-level collective efficacy theory (Sampson et al. 1997, 1999). Collective efficacy is a social good and meets collective needs. It is the degree of neighbors' mutual trust and willingness to intervene in social control for the common good. It thus redefines social capital as shared expectations for action among neighbors. It includes: informal social control (i.e., neighbors are counted on to intervene), social cohesion (i.e., neighborhood is close-knit; neighbors help each other, get along with each other, and share values), and trust (i.e., neighbors can be trusted). Individual responses to these elements are aggregated to the neighborhood level to indicate collective efficacy.

Collective efficacy is characterized by spatial dynamics. In other words, collective efficacy from surrounding neighborhoods positively influences that within focal neighborhoods. Collective efficacy is expected to influence individuals' health by depressing health risks in neighborhoods, creating stress buffers such as social support and safety nets, and maintaining and achieving health-relevant resources such as educational, clinical, and housing resources (Drukker et al. 2005).

Three studies have examined collective efficacy theory. All of them target the youth population, but report mixed empirical evidence. Drukker and colleagues (2003) analyze data on children of about 11 or 12 years old who attended one level of the primary school in Maastricht, the Netherlands. Their analysis shows that informal social control is positively associated with children's mental health but not with their general health, while social cohesion and trust are not associated with both outcomes. In order to explore collective efficacy theory across societies, Drukker and colleagues (2005) use the same data in Maastricht, the Netherlands, and include additional community survey data on children aged 12 in Chicago. They find that informal social control—and social cohesion and trust—increase adolescents' perceived health for the Dutch sample and the Hispanic subsample in the United States, but not for the non-Hispanic subsample. Van der Linden and colleagues (2003) examine data on 56 children utilizing the mental health service and 206 children not using that service in Maastricht, the Netherlands. They report that neither informal social control, nor social cohesion and trust, predict children's mental health service use; but social cohesion and trust offset the effect of neighborhood socioeconomic deprivation on that type of service use.

Putnam: Expansive Applications and Mixed Evidence

Kawachi and colleagues first applied Putnam's social capital, exploring its association with mortality in 1997. A huge multidisciplinary literature has emerged since then. Social capital has been divided into different dimensions: structural and cognitive (Bain and Hicks 1998). Structural social capital includes formal and informal social connections. Cognitive social capital involves trust and norms of reciprocity. Social capital has also been measured at multiple levels. Its individual-level measurement reflects individual social capital, which exerts a compositional effect, and its higher-level measurement, usually as the aggregation of individual responses at the community, state, and even country level, indicates ecological social capital, which has a contextual impact (De Silva et al. 2007; Macintyre and Ellaway 2000).

Different mechanisms can link multiple levels of social capital to health (Kawachi 1999; Kawachi et al. 1999a, b; Kawachi et al. 2008). Social capital functions at an individual level through the supply of social support, the impact of social influence (i.e., the maintenance of healthy norms, the promotion of health behaviors), social engagement, and physiological and biological mechanisms. Social capital operates at the neighborhood levels through the process of informal social control, the maintenance of healthy norms, the promotion of health behaviors, the enhancement of services and facilities, collective socialization, and the supply of social support. Social capital at the state level protects health through egalitarianism-oriented political participation and policy making. Apart from its direct path to health, social capital, in particular ecological social capital, may reflect underlying psychosocial risk factors and mediate the negative association between income inequality and health (Wilkinson 1996).

A huge literature has examined the linkages of multiple forms of social capital as Putnam conceives it to various health and well-being outcomes such as life expectancy, mortality, physical health, mental health, health behavior, health care and services, health information, and life satisfaction among diverse populations of adolescents, adults, and the elderly across levels of social capital, cultures, and societies (for recent reviews, see Almedom 2005; De Silva et al. 2005; Hawe and Shiell 2000; Kawachi et al. 2008; Macinko and Starfield 2001; Whitley and McKenzie 2005). The popularity of Putnam's approach to social capital in the health literature is probably because of their political implications and quick measurements in secondary data (Foley and Edwards 1999). An extensive review of that literature is beyond the scope of this chapter. In brief, although the empirical results are mixed, varying with forms and levels of social capital, outcomes, units of analysis, data sources, research populations, and societies, there is stronger evidence for the salubrious effect of trust than for that of social participation and for the protective effect of individual-level measurement than for that of collective-level measurement (Kim et al. 2008).

At the individual level, some studies find consistent evidence on various health-relevant outcomes across societies. An analysis of community data in the United States, for example, finds that all five social capital indicators (i.e., social trust, associational involvement, organized interaction, informal socializing, and volunteer activity) are positively associated with self-reported health (Schultz et al. 2008). Another study of nationally representative data from England finds that civic participation, social trust, perceived social support, and reciprocity are all positively related to better self-reported health (Petrou and Kupek 2008). But some studies find mixed evidence. A two-wave prospective panel study of a national representative sample in the United States, for example, reports that trust in neighbors rather than civic participation decreases major depression (Fujiwara and Kawachi 2008a). A fixed-effect analysis of adult twins in the United States (Fujiwara and Kawachi 2008b) measures four social capital variables (i.e., social trust, sense of belonging, volunteering, and community participation), and examines four outcomes (i.e., perceived physical health, perceived mental health, number of depressive symptoms, and major depression). Results vary by health outcome, social capital indicator, and the type of twins. In Canada, a study of community data (Veenstra et al. 2005) shows that voluntary participation is predictive of overweight status but not of self-rated health, emotional distress, and chronic illness.

Studies on ecological social capital also report mixed evidence. At the community level, for example, Lochner and colleagues (2003) examine death rates using community data in Chicago, and measure three components of neighborhood social capital: civic participation, trust, and reciprocity. Their results vary by cause of death, race/ethnicity, gender, and social capital indicator. Another study of community data in Chicago (Wen et al. 2007) reports that neighborhood trust and reciprocity are positively related to regularly physical exercise. At the state level in the United States, studies of 39 states (Kawachi et al. 1997, 1999a) finds that all three social capital indicators—civic engagement, trust, and reciprocity—are positively associated with self-reported health, and that civic engagement and trust are negatively related to total mortality rates.

There are also studies on multilevel social capital. One study analyzing nationally representative data (Kim et al. 2006a, b) measures six individual-level social capital indicators, including formal bond (i.e., formal involvement in homogeneous groups), trust in own racial/ethnic groups, formal bridge (i.e., formal involvement in heterogeneous groups), informal bridge (i.e., interaction outside one's own racial/ethnic groups), diversity (i.e., diversity of friendships), and social trust. It combines and aggregates the first two indicators to the community level as community bonding social capital, and the next three indicators to the community level as community bridging social capital. As it reports, three individual-level social capital indicators such as formal bonding, trust in own racial/ethnic groups, and social trust are positively associated with self-reported health, and community bonding social capital instead of community bridging social capital exerts a modest effect on self-reported health. One study of 45 countries (Mansyur et al. 2008) finds individual voluntary participation and social trust have a positive effect on individual self-reported health, while the significance of national voluntary participation and trust depends on the countries included. Another study of 22 European countries (Poortinga 2006) shows that individual instead of national civic participation and social trust predict individual self-rated health. Also, the effect of individual participation and social trust is stronger in countries with higher national civic participation and social trust.

In addition, evidence for the dark side of social capital is emerging. One study of community data in Sweden (Lindström 2005) focuses on individual-level social capital, and finds that high social participation combined with low trust is positively associated high alcohol consumption among men. The possible explanation is that high social participation offers more opportunities for men with low trust, which is linked to psychological and psychosocial problems, to access and drink alcohol.

Issues and Future Directions

Social capital is one of the most acknowledged contributions from sociology to social science and public discourse during the last two decades (Portes 1998). It has stimulated a burgeoning multidisciplinary health research literature across societies during the last two decades. Four scholars—Bourdieu, Lin, Coleman, and Putnam—have contributed to the theoretical construction of social capital from different perspectives. Among them, Putnam's notion has captured most attention in the health literature with the effort of public health researchers, while the value of other sociological theories has been understudied. Considering the fact that social capital is an intrinsic sociological factor, medical sociologists are expected to play a crucial role in advancing our understanding of the relationship between social capital and health by responding to the following three issues.

What is the distinction between diverse definitions of social capital and their causal relationships to each other? Some scholars equate social capital with multiple relationship-based concepts such as social integration, social cohesion, and social support (e.g., Carpiano 2006; Coleman 1990; Putnam 2000, 2004; Sampson et al. 1997), while others conceive of social capital strictly as network resources (Bourdieu 1986 [1983]; Lin 2001a). From a social network perspective we are able to understand the differences and causal relationships between these diverse concepts (Song 2011a; Song et al. 2010). In brief, social cohesion reflects norms of trust and reciprocity among network members (Kawachi and Berkman 2000); social integration refers to involvement in social roles, networks, and activities (Brissette et al. 2000); social support represents various forms of aid individuals receive or perceive from their network members (Berkman 1984; House 1981); and network resources captures assets that network members actually possess. We can trace the ideas of social integration and social cohesion back to Durkheim's work on suicide (1951 [1897]) (Turner 2003), and the notion of social support to the work of Cassel and Cobb (Cassel 1976; Cobb 1976).

Among those relationship-based factors, social cohesion as the most upstream factor in the causal chain can positively influence the other three factors. People who are embedded in more trusting and supportive network norms are more motivated for active social integration, and are more likely and easily to accumulate network resources and get social support from their network members. Thus the other three network-based concepts—social integration, network resources, and social support—can mediate the relationship between social cohesion and health. Second, social integration can positively determine opportunity structures for network resources and social support. People with higher degrees of social integration are more likely and able to maintain old relationships, establish new ones, and enlarge social networks. Therefore, network resources and social support can mediate the relationship between social integration and health. Third, network resources positively determine the quantity and quality of social support. The amount of aid individuals can get from their network members depends on the volume of assets their network members actually possess. Thus, social support can mediate the relationship between network resources and health. Arguably these relationships can also be reciprocal. People with more social capital, for example, may attract more membership invitation or social support. All these possible arguments must be systematically examined. One recent study documents that network resources intervene in the relationship between social integration and psychological distress (Song 2011a). More future research is in need for integrating our understanding of these network-related concepts and establishing a more complete network-based theoretical framework of the social dynamics of health.

What are the future research directions for the network-based approach to social capital? This approach contributes to highlighting resources embedded in social networks as one unique resource locator and stratifier. Its further development requires effort in six directions. First, the lack of measurement in Bourdieu's work produces controversial theoretical and empirical applications. Instead of measuring Bourdieu's social capital as in the normative approach or other established social factors such as social support (e.g., Carpiano 2006; Ziersch 2005), it is arguable that the two determinants of social capital in Bourdieu's work—network size and network members' capital—may serve as proxy indicators of social capital (Portes 1998; Song et al. 2010). Those two determinants are further consistent with Lin's measurement of social capital through the position generator.

Second, future research should further incorporate social capital into the larger picture of the social dynamics of health and study its interplay with other social determinants. Both Bourdieu and Lin emphasize the reciprocal relationship between social capital and personal capital. Lin also highlights unequal access to social capital by other structural factors and institutional embeddedness of social capital. Social capital can influence health directly by mediating the influence of its social antecedents and indirectly by influencing other social causes of health. It may also interact with those health stratifiers by either bringing compensations for the disadvantaged or enhancing the privilege for the advantaged. In addition, social capital should be integrated with the life course perspective to health stratification (O'Rand 2001), cumulative advantage/disadvantage theory in particular (Dannefer 2003). Whether the health gap by social capital increases with age or varies by life stages remains an interesting question (Song 2012). Furthermore, the contingency of the social capital-health relationship on macro-level institutions such as relational culture and inequality structure requires larger-scale comparative studies across more societies (Song 2011b, forthcoming).

Third, future research should further examine the emerging dark side of social capital. On the one hand, network members' resources can protect individuals' health through multiple mechanisms as introduced earlier, social support in particular. On the other hand, they can hurt individuals' health because of their stressful relational cost and their creation of relative deprivation (Moore, Daniel, Gauvin, and Dubé 2009; Song 2011b, forthcoming). Available evidence on the negative health impact of social capital is not a surprise if we integrate social capital theory with the research tradition on reference groups and social comparison (Gartrell 1987; Merton and Kitt 1950). Future research should directly study the possible mechanisms for the negative health effects of social capital. Fourth, future studies should examine the mobilization process of social capital in the access to health resources. Available empirical studies only examine access to social capital. Studies of mobilized social capital can help us understand the role of social capital in the dynamics of disease and illness from onset to recovery (Webber and Huxley 2004).

Fifth, Lin has only recently proposed his macro-level conceptualization of social capital. He specifies internal social capital at the collective level as the sum of members' resources. The established literature on the protective effect of community- and societal-level socioeconomic characteristics on various health outcomes implicitly demonstrates his conceptualization (Robert and House 2000). Future theoretical clarification and methodological work is needed for a direct examination of his macro-level definition. Finally, the empirical examination of the network-based approach is relatively limited. For the purpose of generalizability and stronger causal inferences, longitudinal research designs containing appropriate network instruments, multiple health outcomes, and information for potential explanatory mechanisms are needed.

What are the major challenges and future directions for the normative approach? Collective efficacy theory helps draw our attention to the neighborhood mechanisms of health inequality. Its limited empirical applications report mixed results. Different elements of collective efficacy exert varying effects. There is also evidence for an interaction of certain elements of collective efficacy with race and neighborhood deprivation. There is no doubt that Putnam's work contributes significantly to the health literature. Despite the fact that there is mixed evidence, multiple indicators and levels of social capital are associated with various health-related outcomes across populations and societies. Social capital not only exerts direct effects but also interplays with other factors such as gender, race, age, and neighborhood contexts. The mixed evidence for the normative approach to social capital provides a challenge for future theoretical and empirical research. Available sociological theories, however, may help. Mixed results across societies, for example, suggest that future research should integrate institutional theory into the social capital literature. Varying results across gender, race, and age groups imply that future studies should explore cultural and life-course explanations. Different results across levels show that future research should elaborate the relationships between multiple levels of social capital. Mixed results across health outcomes indicate that future research should theorize specific mechanisms for different outcomes. Varying results across measurements of social capital point out that future studies should analyze each indicator and its mechanisms separately instead of combining indicators without theoretical justification. Also, most results are from cross-sectional data. For the purpose of stronger causal inferences, stricter research designs such as the collection of prospective data are needed. Finally, there has been evidence on the negative health consequences of social capital (Lindström 2005). Future health research should go beyond the presence or absence of social capital, and study the nature and content of social capital and the combinations of different forms of social capital.

Despite its popular application, the normative approach raises theoretical critiques, such as their understatement of social conflict and social capital's negative consequences, the confusing stretching of social capital into the macro-level, the mixed combination of established psychosocial factors, and tautological arguments of social capital as both a cause and an effect (Foley and Edwards 1999; Lin 2001a; Portes 1998). Future studies need to pay attention to the significance of social capital for health inequality. Also, more theoretical and methodological efforts are needed on the construct validity of multilevel measurements of social capital (Hawe and Shiell 2000; Lin 2001a; Muntaner and Lynch 2002; Portes

1998). To solve the tautological problem, as described earlier, future research should theorize and examine relevant concepts (e.g., social integration, social cohesion, informal social control, social support, and social networks) independently instead of subsuming all of them under the trendy umbrella of social capital.

References

Acock, A. C., & Hurlbert, J. S. (1993). Social networks, marital status, and well-being. *Social Networks, 15*, 309–334.

Adam, F., & Rončević, B. (2003). Social capital: Recent debates and research trends. *Social Science Information, 42*, 155–183.

Almedom, A. M. (2005). Social capital and mental health: An interdisciplinary review of primary evidence. *Social Science and Medicine, 61*, 943–964.

Bain, K., & Hicks, N. (1998). Building social capital and reaching out to excluded groups: The challenge of partnerships. Paper presented at CELAM meeting on the struggle against poverty towards the turn of the millennium, Washington DC

Berkman, L. F. (1984). Assessing the physical health effects of social networks and social support. *Annual Review of Public Health, 5*, 413–432.

Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social Science and Medicine, 51*, 843–857.

Blau, P. M., & Duncan, O. D. (1967). *The american occupational structure*. New York: Wiley.

Bourdieu, P. (1984). *Distinction: A social critique of the judgment of taste*. London and New York: Routledge and Kegan Paul.

Bourdieu, P. (1986). [1983]. The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). Westport: Greenwood Press.

Brissette, I., Cohen, S., & Seeman, T. E. (2000). Measuring social integration and social networks. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and intervention* (pp. 53–85). New York: Oxford University Press.

Burt, R. S. (1984). Network items and the general social survey. *Social Networks, 6*, 293–339.

Burt, R. S. (1992). *Structural holes: The social structure of competition*. Cambridge: Harvard University Press.

Carpiano, R. M. (2006). Toward a neighborhood resource-based theory of social capital for health: Can Bourdieu and sociology help? *Social Science and Medicine, 62*, 165–175.

Carpiano, R. M. (2007). Neighborhood social capital and adult health: An empirical test of a Bourdieu-based model. *Health and Place, 13*, 639–655.

Carpiano, R. M. (2008). Actual or potential neighborhood resources and access to them: Testing hypotheses of social capital for the health of female caregivers. *Social Science and Medicine, 67*, 568–582.

Cassel, J. (1976). The contribution of the social environment to host resistance. *American Journal of Epidemiology, 104*, 107–123.

Christakis, N. A., & Fowler, J. H. (2008). The collective dynamics of smoking in a large social Network. *The New England Journal of Medicine, 358*, 2249–2258.

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*, 300–314.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, 95–121.

Coleman, J. S. (1990). *Foundations of social theory*. Cambridge: Belknap Press of Harvard University Press.

Dannefer, D. (2003). Cumulative advantage/disadvantage and the life course: Cross-fertilizing age and social science theory. *Journal of Gerontology, 58B*, S327–S337.

De Silva, M.J., Huttly, S.R.A., Harpham, T., & Kenward, M.G. (2007). Social capital and mental health: A comparative analysis of four low-income countries. *Social Science and Medicine 64*, 5–20.

De Silva, M.J., McKenzie, K., Harpham, T., & Huttly, S.R.A. (2005). Social capital and mental illness: A systematic review. *Journal of Epidemiology and Community Health 59*, 619–627.

Drentea, P., & Moren-Cross, J. L. (2005). Social capital and social support on the web: The case of an internet mother site. *Sociology of Health & Illness, 27*, 920–943.

Drukker, M., Buka, S. L., Kaplan, C., McKenzie, K., & Van Os, J. (2005). Social capital and young adolescents' perceived health in different sociocultural settings. *Social Science and Medicine, 61*, 185–198.

Drukker, M., Kaplan, C., Feron, F., & Van Os, J. (2003). Children's health-related quality of life, neighborhood socio-economic deprivation and social capital: A contextual analysis. *Social Science and Medicine, 57*, 825–841.

Durkheim, E. (1951) [1897]. *Suicide: A study in sociology*, translated by John Spaulding and George Simpson. New York: Free Press.

Erickson, B. H. (2003). Social networks: The value of variety. *Contexts, 2*, 25–31.

Farr, J. (2004). Social capital: A conceptual history. *Political Theory, 32*, 6–33.

Foley, M. W., & Edwards, B. (1999). Is it time to disinvest in social capital? *Journal of Public Policy, 19*, 141–173.

Fujiwara, T., & Kawachi, I. (2008a). A prospective study of individual-level social capital and major depression in the United States. *Journal of Epidemiology and Community Health, 62*, 627–633.

Fujiwara, T., & Kawachi, I. (2008b). Social capital and health: A study of adult twins in the US. *American Journal of Preventive Medicine, 35*, 139–144.

Gartrell, C. D. (1987). Network approaches to social evaluation. *Annual Review of Sociology, 13*, 49–66.

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology, 78*, 1360–1380.

Hanifan, L. J. (1916). The Rural School Community Center. *Annals of the Academy of Political and Social Science, 67*, 130–138.

Hawe, P., & Shiell, A. (2000). Social capital and health promotion: A review. *Social Science and Medicine, 51*, 871–885.

House, J. S. (1981). *Work stress and social support*. Reading: Addison-Wesley.

House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science, 241*, 540–545.

Islam, M.K., Merlo, J., Ichiro, K., Lindstrom, M., & Gerdtham, U-G. (2006). Social capital and health: Does egalitarianism matter? A literature review. *International Journal for Equity in Health 5*, 3. Retrieved April 9, 2006 (www.equityhealthj.com/content/pdf/1475-9276-5-3.pdf).

Kawachi, I. (1999). Social capital and community effects on population and individual health. *Annals of the New York Academy of Sciences, 896*, 120–130.

Kawachi, I., & Berkman, L. F. (2000). Social cohesion, social capital and health. In L. F. Berkman & K. Ichiro (Eds.), *Social epidemiology* (pp. 174–190). New York: Oxford University Press.

Kawachi, I., Kennedy, B. P., & Glass, R. (1999a). Social capital and self-rated health: A contextual analysis. *American Journal of Public Health, 89*, 1187–1193.

Kawachi, I., Kennedy, B. P., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health, 87*, 1491–1498.

Kawachi, I., Kennedy, B.P., & Wilkinson, R. (Eds.). (1999). *Income inequality and health: A reader*. New York: New Press.

Kawachi, I., Subramanian, S.V., & Kim, D. (Eds.). (2008). *Social capital and health*. New York: Springer Science and Business Media.

Kim, D., Subramanian, S.V., Gortmaker, S.L., & Kawachi, I. (2006). US state- and country-level social capital in relation to obesity and physical inactivity: A multilevel, multivariable analysis. *Social Science and Medicine 63*, 1045–1059.

Kim, D., Subramanian, S.V., & Kawachi, I. (2006). Bonding versus bridging social capital and their associations with self-rated health: A multilevel analysis of 40 US communities. *Journal of Epidemiology and Community Health 60*, 116–122.

Kim, D., Subramanian, S.V., & Kawachi, I. (2008). Social capital and physical health: A systematic review of the literature. In K. Ichiro, S. V. Subramanian, and D. Kim (Eds.), *Social capital and health* (pp. 139–190). New York: Springer Science and Business Media.

Lin, N. (1982). Social resources and instrumental action. In P. V. Marsden & N. Lin (Eds.), *Social structure and network analysis* (pp. 131–145). Beverly Hills: Sage.

Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology, 25*, 467–488.

Lin, N. (2001a). *Social capital: A theory of social structure and action*. Cambridge: Cambridge University Press.

Lin, N. (2001b). Building a network Theory of social capital. In N. Lin, K. Cook, & R. S. Burt (Eds.), *Social capital: Theory and research* (pp. 3–29). New York: Aldine de Gruyter.

Lin, N. (2008). A network theory of social capital. In D. Castiglione, J. van Deth, & G. Wolleb (Eds.), *Handbook on social capital* (pp. 50–69). Oxford: Oxford University Press.

Lin, N., Dayton, P., & Greenwald, P. (1978). Analyzing the instrumental use of relations in the context of social structure. *Sociological Methods and Research, 7*, 149–166.

Lin, N., & Dumin, M. (1986). Access to occupations through social ties. *Social Networks, 8*, 365–385.

Lin, N., Ensel, W. M., & Vaughn, J. C. (1981). Social resources and strength of ties: Structural factors in occupational status attainment. *American Sociological Review, 46*, 393–405.

Lin, N., Fu, Y.-C., & Hsung R.-M. (2001). The position generator: A measurement technique for investigations of social capital. In N. Lin, K. Cook, & R. S. Burt (Eds.), *Social capital: Theory and research* (pp. 57–81). New York: Aldine de Gruyter.

Lindström, M. (2005). Social capital, the miniaturization of community and high alcohol consumption: A population-based study. *Alcohol and Alcoholism, 40*, 556–562.

Lochner, K. A., Kawachi, I., Brennan, R. T., & Buka, S. L. (2003). Social capital and neighborhood mortality rates in chicago. *Social Science and Medicine, 56*, 1797–1805.

Macinko, J., & Starfield, B. (2001). The utility of social capital in research on health determinants. *Milbank Quarterly, 79*, 387–427.

Macintyre, S., & Ellaway, A. (2000). Ecological approaches: Rediscovering the role of the physical and social environment. In L. F. Berkman & K. Ichiro (Eds.), *Social epidemiology* (pp. 332–348). Oxford: Oxford University Press.

Mansyur, C., Amick, B. C., Harrist, R. B., & Franzini, L. (2008). Social capital, income inequality, and self-rated health in 45 countries. *Social Science and Medicine, 66*, 43–56.

Van der Gaag., Martin, P.J., & Snijders, T.A.B. (2005). The resource generator: Social capital quantification with concrete items. *Social Networks 27*, 1–27.

Marx, K. (1963). *Karl Marx: Selected writings in sociology and social philosophy*, translated by T. B. Bottomore, edited by T. B. Bottomore and M. Rubel. London: Penguin Books.

McCallister, L., & Fischer, C. S. (1978). A procedure for surveying personal networks. *Sociological Methods and Research, 7*, 131–148.

Merton, R.K., & Kitt, A.S. (1950). Contributions to the theory of reference group behavior. In R.K. Merton, & P.F. Lazarsfel (Eds.), *Continuities in social research: Studies in the scope and method of "The American Soldier*," Glencoe: The Free Press.

Moore, S., Bockenholt, U., Daniel, M., Frohlich, K., Kestens, Y., & Richard, L. (2011). Social capital and core network ties: A validation study of individual-level social capital measures and their association with extra- and intra-neighborhood ties, and self-rated health. *Health & Place, 17*, 536–544.

Moore, S., Daniel, M., Gauvin, L., & Dubé, L. (2009). Not all social capital is good capital. *Health & Place, 15*, 1071–1077.

Moore, S., Daniel, M., Paquet, C., Dubé, L., & Gauvin, L. (2009). Association of individual network social capital with abdominal adiposity, overweight and obesity. *Journal of Public Health 31*, 175–183.

Moore, S., Shiell, A., Hawe, P., & Haines, V.A. (2005). The privileging of communitarian ideas: Citation practices and the translation of social capital into public health research. *American Journal of Public Health 95*, 1330–1337.

Muntaner, C., & Lynch, J. (2002). Social capital, class, race and gender conflict and population health. *International Journal of Epidemiology, 202*, 261–267.

O'Rand, A. M. (2001). Stratification and the life course: The forms of life-course capital and their interrelationships. In R. R. Binstrock & L. K. George (Eds.), *Handbook of aging and the social sciences* (pp. 197–213). San Diego: Academic Press.

Pescosolido, B. A., & Levy, J. A. (2002). The role of social networks in health, illness, disease and healing: The accepting present, the forgotten past, and the dangerous potential for a complacent future. In J. A. Levy & B. A. Pescosolido (Eds.), *Social networks and health* (pp. 3–25). New York: Elsevier Science.

Petrou, S., & Kupek, E. (2008). Social capital and its relationship with measures of health status: Evidence from the health survey for england 2003. *Health Economics, 17*, 127–143.

Poortinga, W. (2006). Social capital: An individual or collective resource for health? *Social Science and Medicine, 62*, 292–302.

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology, 24*, 1–24.

Portes, A., & Sensenbrenner, J. (1993). Embeddedness and immigration: Notes on the social determinants of economic action. *American Journal of Sociology, 98*, 1320–1350.

Putnam, R. D. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton: Princeton University Press.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy, 6*, 65–78.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.

Robert, S. A., & House, J. S. (2000). Socioeconomic inequalities in health: Integrating individual-, community-, and societal-level theory and research. In G. L. Albrecht, R. Fitzpatrick, & S. C. Scrimshaw (Eds.), *Handbook of social studies in health and medicine* (pp. 115–135). Thousand Oaks: Sage.

Sampson, R. J., Morenoff, J. D., & Earls, F. (1999). Beyond social capital: Spatial dynamics of collective efficacy for children. *American Sociological Review, 64*, 633–660.

Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science, 277*, 918–924.

Schultz, J., O'Brien, A.M., & Tadesse, B. (2008). Social capital and self-rated health: Results from the US 2006 Social Capital Survey of One Community. *Social Science and Medicine 67*, 606–617.

Smith, K. P., & Christakis, N. A. (2008). Social networks and health. *Annual Review of Sociology, 34*, 405–429.

Snijders, T. A. B. (1999). Prologue to the measurement of social capital. *La Revue Tocqueville, 20*, 27–44.

Van der Gaag., Martin P. J., Snijders, T.A.B., & Flap, H.D. (2008). Position generator measures and their relationship to other social capital measures. In N. Lin and B. Erickson (Eds.), *Social capital: Advances in research* (pp. 27–48). New York: Oxford University Press.

Song, L. (2011a). Social capital and psychological distress. *Journal of Health and Social Behavior, 52*, 478–492.

Song, L. (2011b). Does who you know in the structural hierarchy protect or hurt? Network-based social capital and health in urban China and the United States. The 106th Annual Meeting of American Sociological Association, Las Vegas, August 20, 2011.

Song, L. (2012). Raising network resources while raising children? Access to social capital by parenthood status, gender, and marital status. *Social Networks, 34*, 241–252.

Song, L. (Forthcoming). Bright and dark sides of who you know in the evaluation of well-being: Social capital and life satisfaction across three societies. To appear In N. Lin, Y.-C. Fu, & C.-J. Chen (Eds.), *Social capital and its institutional contingency: A study of the United States, Taiwan and China*. London: Routledge.

Song, L., & Chang, T.-Y. (2012). Do resources of network members help in help seeking? Social capital and health information search. *Social Networks.34*(4), 658–659.

Song, L., & Lin, N. (2009). Social capital and health inequality: Evidence from Taiwan. *Journal of Health and Social Behavior, 50*, 149–163.

Song, L., Son, J., & Lin, N. (2010). Social capital and health. In W. C. Cockerham (Ed.), *The new companion to medical sociology* (pp. 184–210). Oxford: Wiley-Blackwell.

Song, L., Son, J., & Lin, N. (2011). Social support. In J. Scott & P. J. Carrington (Eds.), *Handbook of social network analyses* (pp. 116–128). London: SAGE.

Stephens, C. (2008). Social capital in its place: Using social theory to understand social capital and inequalities in health. *Social Science and Medicine, 66*, 1174–1184.

Turner, B. (2003). Social capital, inequality and health: The Durkheimian revival. *Social Theory and Health, 1*, 4–20.

Umberson, D., & Montez, J. K. (2010). Social relationships and health: A flashpoint for health policy. *Journal of Health and Social Behavior, 51*, S54–S66.

Van der Linden, J., Drukker, M., Gunther, N., Feron, F., & Os, J.V. (2003). Children's mental health service use, neighborhood socioeconomic deprivation, and social capital. *Social Psychiatry and Psychiatric Epidemiology, 38*, 507–514.

Veenstra, G., Luginaah, I., Wakefield, S., Birch, S., Eyles, J., & Elliott, S. (2005). Who you know, where you live: social capital, neighborhood and health in Hamilton, Canada. *Social Science and Medicine, 60*, 2799–2818.

Webber, M. P., & Huxley, P. (2004). Mental health and social capitals (letter). *British Journal of Psychiatry, 184*, 185–186.

Webber, M. P., & Huxley, P. (2007). Measuring access to social capital: The validity and reliability of the resource generator-UK and its association with common mental disorder. *Social Science and Medicine, 65*, 481–492.

Wen, M., Browning, C. R., & Cagney, K. A. (2007). Neighborhood deprivation, social capital and regular exercise during adulthood: A multilevel study in Chicago. *Urban Studies, 44*, 2651–2671.

Whitley, R., & McKenzie, K. (2005). Social capital and psychiatry: Review of the literature. *Harvard Review of Psychiatry, 13*, 71–84.

Wilkinson, R. G. (1996). *Unhealthy societies: The afflictions of inequality*. London and New York: Routledge.

Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Science, 27*, 151–208.

Yang, H.-H., Kuo, S.-C., Lai, Y.-H., Yang H.-J., & Yu, J.-C. (2011). A regression model of social capital and self-evaluated health. *International Journal of Mathematical Models and Methods in Applied Sciences, 5*, 652–659.

Ziersch, A. M. (2005). Health implications of access to social capital: Findings from an Australian study. *Social Science and Medicine, 61*, 2119–2131.

Ziersch, A. M., Baum, F. E., MacDougall, C., & Putland, C. (2005). Health implications of access to social capital: Findings from an Australian study. *Social Science and Medicine, 60*, 71–86.

Index

W. C. Cockerham (ed.), *Medical Sociology on the Move*,
DOI: 10.1007/978-94-007-6193-3,