

Cambridge University Press

978-0-521-70742-8 - Teaching Medical Professionalism

Edited by Richard L. Cruess, Sylvia R. Cruess and Yvonne Steinert

Frontmatter

[More information](#)

TEACHING MEDICAL PROFESSIONALISM

Until recently, professionalism was transmitted by respected role models, a method that depended heavily on the presence of a homogeneous society sharing values. This is no longer true, and medical schools and postgraduate training programs in the developed world are now actively teaching professionalism. In addition, licensing and certifying bodies are attempting to assess the professionalism of practicing physicians on an ongoing basis.

This is the only book available to provide guidance to those designing and implementing programs on teaching professionalism. It outlines the cognitive base of professionalism, provides a theoretical basis for teaching the subject, gives general principles for establishing programs at various levels (undergraduate, postgraduate, and continuing professional development), and documents the experience of institutions that are leaders in the field. Teaching aids that have been used successfully by contributors are included as an appendix.

Richard L. Cruess, M.D., is Professor of Orthopedic Surgery and a Member of the Centre for Medical Education at McGill University. He served as Chair of Orthopedics (1976–1981) and was Dean of the Faculty of Medicine at McGill University from 1981 to 1995. He was President of the Canadian Orthopedic Association (1977–1978), the American Orthopedic Research Society (1975–1976), and the Association of Canadian Medical Colleges (1992–1994). He is an Officer of The Order of Canada and of L'Ordre National du Québec.

Sylvia R. Cruess, M.D., is Professor of Medicine and a Member of the Centre for Medical Education at McGill University. She previously served as Director of the Metabolic Day Centre (1968–1978) and as Director of Professional Services (Medical Director) of the Royal Victoria Hospital (1978–1995) in Montreal.

Since 1995, Drs. Richard and Sylvia Cruess have taught and carried out independent research on professionalism in medicine. They have published widely on the subject and have been invited to speak at universities, hospitals, and professional organizations throughout the world.

Yvonne Steinert, Ph.D., a clinical psychologist, is a Professor of Family Medicine, Associate Dean for Faculty Development, and the Director of the Centre for Medical Education at McGill University. Dr. Steinert is actively involved in curriculum development at the undergraduate and postgraduate levels, the design and delivery of faculty development programs and activities, and research in medical education. A past President of the Canadian Association for Medical Education (2006–2008), she has published extensively in the area of faculty development and medical education and is frequently invited to present at national and international meetings.

Cambridge University Press
978-0-521-70742-8 - Teaching Medical Professionalism
Edited by Richard L. Cruess, Sylvia R. Cruess and Yvonne Steinert
Frontmatter
[More information](#)

Teaching Medical Professionalism

Edited by

Richard L. Cruess

McGill University
Montreal, Quebec

Sylvia R. Cruess

McGill University
Montreal, Quebec

Yvonne Steinert

McGill University
Montreal, Quebec



Cambridge University Press
978-0-521-70742-8 - Teaching Medical Professionalism
Edited by Richard L. Cruess, Sylvia R. Cruess and Yvonne Steinert
Frontmatter
[More information](#)

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press
32 Avenue of the Americas, New York, NY 10013-2473, USA

www.cambridge.org
Information on this title: www.cambridge.org/9780521707428

© Cambridge University Press 2009

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2009

Printed in the United States of America

A catalog record for this publication is available from the British Library.

Library of Congress Cataloging in Publication Data

Teaching medical professionalism / edited by Richard L. Cruess, Sylvia R. Cruess, Yvonne Steinert.
p. ; cm.
Includes bibliographical references and index.
ISBN 978-0-521-88104-3 (hardback) – ISBN 978-0-521-70742-8 (paperback)
1. Medical education. 2. Physicians–Professional ethics–Study and teaching. I. Cruess, Richard L. II. Cruess, Sylvia R. (Sylvia Robinson). III. Steinert, Yvonne. IV. Title.
[DNLM: 1. Professional Competence. 2. Education, Medical. 3. Physician’s Role. W 21 T253 2008]
R737.T38 2008
610–dc22 2008025429

ISBN 978-0-521-88104-3 hardback
ISBN 978-0-521-70742-8 paperback

Every effort has been made in preparing this book to provide accurate and up-to-date information that is in accord with accepted standards and practice at the time of publication. Although case histories are drawn from actual cases, every effort has been made to disguise the identities of the individuals involved. Nevertheless, the authors, editors, and publishers can make no warranties that the information contained herein is totally free from error, not least because clinical standards are constantly changing through research and regulation. The authors, editors, and publishers therefore disclaim all liability for direct or consequential damages resulting from the use of material contained in this book. Readers are strongly advised to pay careful attention to information provided by the manufacturer of any drugs or equipment that they plan to use.

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party Internet Web sites referred to in this publication and does not guarantee that any content on such Web sites is, or will remain, accurate or appropriate. Information regarding prices, travel timetables, and other factual information given in this work are correct at the time of first printing, but Cambridge University Press does not guarantee the accuracy of such information thereafter.

Contents

List of Contributors	page vii
Foreword by William M. Sullivan	ix
Introduction	1
PART ONE. WHAT IS TO BE TAUGHT	
1. The Cognitive Base of Professionalism <i>Sylvia R. Cruess and Richard L. Cruess</i>	7
PART TWO. THEORY	
2. Educational Theory and Strategies for Teaching and Learning Professionalism <i>Yvonne Steinert</i>	31
3. Professionalism and the Socialization of Medical Students <i>Frederic William Hafferty</i>	53
PART THREE. PRINCIPLES	
4. Principles for Designing a Program for the Teaching and Learning of Professionalism at the Undergraduate Level <i>Richard L. Cruess and Sylvia R. Cruess</i>	73
5. Resident Formation – A Journey to Authenticity: Designing a Residency Program That Educates Professionalism <i>David C. Leach</i>	93
6. Supporting Teaching and Learning of Professionalism – Changing the Educational Environment and Students’ “Navigational Skills” <i>Thomas S. Inui, Ann H. Cottingham, Richard M. Frankel, Debra K. Litzelman, Anthony L. Suchman, and Penelope R. Williamson</i>	108
7. Assessment and Remediation in Programs of Teaching Professionalism <i>Christine Sullivan and Louise Arnold</i>	124

Cambridge University Press
978-0-521-70742-8 - Teaching Medical Professionalism
Edited by Richard L. Cruess, Sylvia R. Cruess and Yvonne Steinert
Frontmatter
[More information](#)

8. Developing Professionalism across the Generations	150
<i>Sharon Johnston and Mark A. Peacock</i>	
9. Faculty Development for Teaching and Learning Professionalism	165
<i>Yvonne Steinert</i>	
10. The Relationship between Teaching Professionalism and Licensing and Accrediting Bodies	185
<i>Sir Donald Irvine</i>	
11. Educating the Public about Professionalism: From Rhetoric to Reality	200
<i>Jordan J. Cohen and Linda L. Blank</i>	
PART FOUR. PRACTICE: CASE STUDIES IN TEACHING PROFESSIONALISM ACROSS THE CONTINUUM	
12. Teaching Professionalism in a Traditional or Organ-Based Curriculum	211
<i>Erika Goldstein</i>	
13. Learning Professionalism in a Problem-Based Curriculum	225
<i>Gillian Maudsley and Rev. David C.M. Taylor</i>	
14. Teaching Professionalism and Fostering Professional Values during Residency: The McGill Experience	246
<i>Linda Snell</i>	
15. Continuing Professional Development: A Focus on Professionalism	263
<i>Dave Davis</i>	
APPENDIX A. Definitions of Professionalism	279
APPENDIX B. Core Attributes of Professionalism	285
APPENDIX C. The Teaching of Professionalism: Vignettes for Discussion	287
APPENDIX D. A Matrix for “Matching” Teaching Methods to Attributes	291
APPENDIX E. Sample Grid for Use with Discussion of Vignettes	292
APPENDIX F. Sample Questions to Guide Discussion about the Social Contract: Small-Group Leaders’ Guide with Suggested Responses	294
APPENDIX G. Professionalism Program for Residents: Suggested Outline for Small Group Facilitators	295
APPENDIX H. Sample Evaluation Form for Residents’ Half-Day Program on Professionalism	297
Index	299

List of Contributors

Louise Arnold, Ph.D.
Professor and Associate Dean for Medical Education
University of Missouri–Kansas City School of Medicine, Kansas City, Missouri

Linda L. Blank
Vice President, The Culliton Group
Washington, DC
Robert G. Petersdorf Scholar (2005–2007)
Association of American Medical Colleges
Washington, DC

Jordan J. Cohen, M.D.
President Emeritus
Association of American Medical Colleges
Professor of Medicine and Public Health
George Washington University
Washington, DC

Ann H. Cottingham, M.A.R.
Director of Special Programs
Medical Education and Curricular Affairs
Indiana University School of Medicine
Indianapolis, Indiana

Richard L. Cruess, M.D.
Professor of Surgery
Member, Center for Medical Education
Former Dean of Medicine
McGill University, Montreal, Quebec

Sylvia R. Cruess, M.D.
Professor of Medicine
Member, Center for Medical Education
McGill University

Former Director of Professional Services
Royal Victoria Hospital, Montreal, Quebec

Dave Davis, M.D., C.C.F.P., F.C.F.P., F.R.C.P.C. (hon.)
Vice President, Continuing Health Care Education and Improvement
Association of American Medical Colleges
Washington, DC
Adjunct Professor, Family and Community Medicine, and Health Policy, Management and Evaluation
University of Toronto, Toronto, Ontario

Richard M. Frankel, Ph.D.
Professor of Medicine and Geriatrics
Senior Research Scientist
Regenstrief Institute
Indiana University School of Medicine
Research Sociologist
Center on Implementing Evidence Based Practice
Richard L. Roudebush Veteran’s Administration Medical Center
Indianapolis, Indiana

Erika Goldstein, M.D., M.P.H.
Professor, Internal Medicine
Director UWSOM Colleges Program
University of Washington School of Medicine
Seattle, Washington

Frederic William Hafferty, Ph.D.
Professor, Department of Behavioral Sciences
University of Minnesota Medical School
Duluth, Minnesota

Cambridge University Press
978-0-521-70742-8 - Teaching Medical Professionalism
Edited by Richard L. Cruess, Sylvia R. Cruess and Yvonne Steinert
Frontmatter
[More information](#)

viii Contributors

Thomas S. Inui, Sc.M., M.D.
President and CEO, Regenstrief Institute
Sam Regenstrief Professor of Health Services
Research
Associate Dean for Health Care Research, and
Professor of Medicine
Indiana University School of Medicine
Indianapolis, Indiana

**Sir Donald Irvine, C.B.E., M.D., F.R.C.G.P.,
F.Med.Sci.**
Chairman, Picker Institute Europe
Former President, UK General Medical Council

**Sharon Johnston, B.A. (gov.), B.A. (law),
L.L.M., M.D.**
Assistant Professor
Department of Family Medicine
University of Ottawa
CT Lamont Primary Health Care Research
Centre, Élisabeth Bruyère Research Institute
Ottawa, Ontario

David C. Leach, M.D.
CEO (retired), Accreditation Council for
Graduate Medical Education
Chicago, Illinois

Debra K. Litzelman, M.A., M.D.
Associate Dean for Medical Education and
Curricular Affairs
Richard Powell Professor of Medicine
Indiana University School of Medicine
Indianapolis, Indiana

**Gillian Maudsley, M.B.Ch.B., M.P.H. (dist.),
Med. (dist.), M.D.**
Clinical Senior Lecturer in Public Health
Medicine
Division of Public Health, School of
Population, Community, and Behavioural
Sciences, The University of Liverpool
Liverpool, UK

Mark A. Peacock, M.Ed.
Learning Solutions d'Apprentissage
Chelsea, Quebec

Linda Snell, M.D.
Professor of Medicine
McGill University

Associate Physician in Chief
McGill University Health Center
Member, Center for Medical Education
McGill University
Montreal, Quebec

Yvonne Steinert, Ph.D.
Professor of Family Medicine
Associate Dean for Faculty Development
Director, Center for Medical Education
McGill University
Montreal, Quebec

Anthony L. Suchman, M.D., M.A.
Senior Consultant
Relationship Centered Health Care
Clinical Professor of Medicine and Psychiatry
University of Rochester School of Medicine
and Dentistry
Rochester, New York

Christine Sullivan, M.D., F.A.C.E.P.
Assistant Professor
Residency Program Director
Department of Emergency Medicine
University of Missouri–Kansas City School of
Medicine, Truman Medical Center
Kansas City, Missouri

William M. Sullivan, Ph.D.
Senior Scholar
Carnegie Foundation for the Advancement of
Teaching
Palo Alto, California

**The Reverend David C.M. Taylor, B.Sc., Med.,
Ph.D.**
Deputy Director of Medical Studies (Quality,
Assessment, and Research)
School of Medical Education
The University of Liverpool
Liverpool, UK

Penelope R. Williamson, Sc.D.
Senior Consultant
Relationship Centered Health Care
Associate Professor of Medicine
The Johns Hopkins University School of
Medicine
Baltimore, Maryland

FOREWORD

Teaching Medical Professionalism

William M. Sullivan, Ph.D.

This is a pioneering book. It brings together leading figures in both the theory and the practice of teaching professionalism in medicine. The volume’s chapters provide a thorough and useful guide to one of the most important topics in medical education today: how to ensure that future physicians can meet the increased expectations the public now places on medicine. The key to securing medicine’s future, the authors of the volume argue, lies in understanding, transmitting, and enhancing medical professionalism.

The public wants both better medical care and a profession more responsive to its needs. But most of all, people want competent and caring physicians who are committed to the healing of their patients. Nearly all of us will be patients. We will be vulnerable and in need of medical expertise. We will want the best prepared and most knowledgeable doctors we can find. But more than that, we will need to be able to trust that our physicians will be dedicated above all else to care for us with all their ability.

ADDRESSING THREATS TO THE INTEGRITY OF THE PRACTICE OF MEDICINE

Medicine as a profession is defined by its blending of expertise in healing with responsibility for patient care. Teaching professionalism, as the authors present it, directly addresses the formation of physicians who manifest this needed integration of expertise with dedication to the care of patients. They write this in full knowledge that medicine’s integrity has for some time been under threat. Those threats to the integrity of medical practice are two. One stems from the success of the new technological medicine itself. Advances in biological science and technology are steadily transforming medical care for the better. However, they have also strengthened the false idea that medicine is simply an application of scientific knowledge rather than a complex and

artful sociobiological practice. The other threat is embodied in the largely well-intentioned efforts to make medicine safer, more predictable, and more efficient through applying techniques of financial and organizational management.

Both these developments, the misunderstanding of medicine as either applied technology, on the one hand, or as the delivery of standardized services, on the other, reduce medicine to a too limited perspective. Each fails to recognize that medicine is a complex practice defined by its own goals and internal values of competence and dedication. Indeed, the idea of professionalism has come to stand for recovery of the full dimensions of the practice of medicine. Medicine’s purpose is to maintain and develop medical art in the service of patient care. Achieving these aims depends upon physicians’ orientation and commitment to these purposes in their daily work. And the individual physician’s understanding and dedication themselves depend importantly upon the vitality and intensity with which the community of practitioners supports practices with these ends.

Biomedical research and managerial technique can be valuable assets in society’s quest for better health care, but they can contribute most by enriching and extending the forms of medical practice. They cannot by themselves substitute for the expertise and orientation to service cultivated within the professional community. Medical practice, in other words, has an integrity, even a wisdom, that needs to be understood, assessed, and enhanced, not supplanted.

**PROFESSIONALISM AS A FRAMEWORK
FOR PREPARING PHYSICIANS**

In their practice, physicians employ their expertise in the service of patients’ healing and society’s health. Within their relationships with patients, physicians can find a unique fulfillment through employing their capacities in resourceful, caring, and creative ways. This is the promise of medicine as a vocation. But to practice medicine means joining a professional community as well as deploying the art of healing. The fulfillment of medicine’s promise depends upon sustaining the confidence of individual patients and also the trust of the larger society the profession is pledged to serve.

As the editors, Sylvia and Richard Cruess and Yvonne Steinert emphasize, there is an implicit but vital contract between medicine and the larger society, a compact according to which the profession is granted discretion and self-regulation in exchange for service and high standards of care. For both patients and physicians, however, the promise can only be redeemed when it

is well understood and shapes the whole orientation of physicians in their development as professionals. Ensuring that this happens is the task of teaching medical professionalism.

As the authors in this volume demonstrate, teaching professionalism is not so much a particular segment of the medical curriculum as a defining dimension of medical education as a whole. Professionalism provides an angle of approach to the whole trajectory of formation in the practice of medicine, from beginning student through continuing professional development. The peculiar intensity of medical education ensures that it is deeply formative. As Frederic Hafferty shows in his contribution, the implications of the formative intensity of medical education are still not fully understood by all medical educators. This is an important issue, Hafferty argues, because effective educational interventions to strengthen professionalism will not succeed until the inconsistencies in existing practice are more clearly understood and addressed.

The positive aspect of recognizing the formative nature of medical preparation is the opportunity it presents to medical educators to become more self-aware and intentional about how future physicians actually develop. A formative perspective further suggests ways in which medical students and residents might be enabled to become more self-aware in developing their own expertise and dedication at each stage in their professional training. A professionalism curriculum is intended to place the values of medical practice at the center of all phases of medical training so that the defining aims and shaping experiences of the profession become a primary focus of attention and standard of assessment in the student's progress toward taking up the life of a physician.

**PROFESSIONALISM ACROSS THE CONTINUUM
OF MEDICAL EDUCATION**

The great challenge confronting medical education is to provide a sense of overall direction and continuity across a long trajectory of preparation. The arc of development from the beginning of medical school to advanced residency spans a very long and exceptionally complicated educational process. Future physicians begin their training in school-like settings in which they are often encouraged to continue the role and thinking of students. There, they are mostly concerned with solving well-structured problems by learning and applying routine techniques. As their education progresses, however, they must gradually replace that familiar stance by learning to think and act in clinical settings as a novice and then a more experienced practitioner. As clinicians, future physicians must learn to configure their knowledge to

define problems in context in order to meet novel challenges, becoming ever more authentically engaged with the practice of medicine in its multiple dimensions.

This path of development is not a one-directional movement from simple to complex but a series of iterations, a growing sophistication in understanding the overall sense and goal of the medical arts. Professionalism provides a continuing thread by which to remind students of the basic continuity of aim that unites the disparate domains of theory, practice, setting, and forms of teaching and learning they encounter. A number of authors in this volume draw upon the rich literature of learning theory in order to address ways of ensuring progress in fostering an integrated and integrating professional stance throughout the movement from student to advanced resident and beyond. In different ways, the authors develop recent insights into the cultivation of expertise in order to form a professional identity as a physician.

Learning theorists argue that expertise is best developed through learning by doing. Learning by doing is always to some degree formative, but it is not necessarily self-consciously so. This requires that the instructor communicate as clearly as possible the aims as well as the content that is taught. Effective learning requires practice, response to feedback on that practice, and recurrent attention to the goals as well as the actions and understandings that constitute the practice being learned. Assessment is critical to this process since what is assessed communicates to learners what is important about the subject and how it is to be engaged.

Such pedagogy shapes the perception, imagination, and deportment of anyone who undergoes it. However, unless it also contains a reflexive dimension, unless it is intentionally aimed at affecting the learner (or is so appropriated by the learner) – as in encouraging learning to learn, or taking responsibility for one’s own development – it can remain less than fully effective. Formative teaching, however, enables students to grow in a very concrete sense: they acquire abilities but also sensibilities that expand their repertoire beyond what that had been previously. Such education thereby influences individuals’ sense of what is possible and worth doing and of who they are and might become. This is perhaps especially so with regard to learning something as complex and integrative as professionalism.

The principles and examples presented in *Teaching Medical Professionalism* develop these themes for the variety of stages and settings of preparing doctors. Gillian Maudsley and David Taylor explain how professionalism fits into a problem-based curriculum, while Erika Goldstein shows how it can be integrated with an organ system-based approach. Both approaches emphasize explicit goal setting, early involvement of students in basic elements of clinical practice, and effective assessment. Continuing that theme, Christine

Sullivan and Louise Arnold provide an overview of how to make assessment effective in the professionalism curriculum. Addressing the other end of the educational trajectory, David Leach presents principles that motivate the ACGME’s performance-based standards for professionalism. Thomas Inui and his colleagues extend these concerns beyond the curriculum into an analysis of how the institutional settings must be structured, or restructured, in order to support the development of professionalism considered as an essential element of medical expertise.

PUTTING THE PRACTICE AT THE CENTER

A striking feature of *Teaching Medical Professionalism* is that it reveals how teaching professionalism reflects and maps onto the challenge of initiating students into the practice of medicine itself. The heart of medical practice – and training – is a distinctive way of thinking that focuses upon the unfolding of patient’s experience with health and illness. Medicine makes sense of disease by understanding patients’ experience against the background of biomedical science and clinical procedures. This is conveyed through the device of the case narrative.

The case narrative, as Kathryn Montgomery has argued, “is the principal means of thinking and remembering – of *knowing* – in medicine.” The case narrative, that is, represents nothing less than “clinical judgment . . . in all its situated and circumstantial uncertainty.”¹ It enables practitioners to make sense of the contingent unfolding of the disease or medical situation by setting up a kind of conversation, a back-and-forth, between the patient’s particular story with various general, analytical accounts derived from scientific pathophysiology. The crucial point is that case reasoning is not a hold-over from the prescientific past but a representation of clinical judgment itself. This is the foundation of all medical skill. Thus, Montgomery concludes that it is important to recognize – and we might add, to teach – that medicine is more than a science. It is rather a complex practice of healing in which “diagnosis and treatment are intensively science-using activities,” though not “in and of themselves, science.”²

Case-based reasoning is also the focal point of medical training. It is neither classical deduction of particulars from general laws nor the induction of principles from particulars. Instead, case reasoning is a kind of circular or iterative process. In it, doctors form hypotheses about the possible causes of

¹ Kathryn Montgomery, *How Doctors Think: Clinical Judgment and the Practice of Medicine* (New York: Oxford University Press, 2006). p. 46.
² Ibid. pp. 46 and 52.

a particular patient’s situation and then test those possibilities against details revealed by closer examination of the patient. Medical judgment employs analytical, scientific knowledge as well as clinical experience in the service of the interpretive work of isolating probable causes of illness by eliminating alternative possibilities to arrive at a “differential diagnosis.”

This procedure moves between generalities of disease, on the one hand, and unfolding of a particular patient’s situation. It initiates a back-and-forth dialogue between these two modes of thinking until a judgment is reached as to what is happening to the patient and how to respond to it. It enables practitioners to make sense of the contingent unfolding of a disease or medical situation in its particular context. Clinical medical education works by bringing learners into this conversation, guiding them by modeling, questioning, and mentored practice into the back-and-forth of clinical reasoning, as it moves between the patient’s particular story and general analytical knowledge and standard procedures.

If one understands medical practice as case reasoning in this way, the core medical practice and teaching appear well suited to incorporate the themes of medical professionalism. Teaching ways of explicitly attending to the patient’s experience and to the social or organizational as well as biological context of the case represent natural developments of the back-and-forth between formal knowledge and developing situation that are the basic features of medical art. Seen in the perspective of case reasoning, the themes of professionalism represent an expansion and deepening of the physician’s perception, reasoning, and judgment that are already the center of medical practice and learning. It is to recover the full dimensions of medical practice.

**PROFESSIONALISM AS THE INTEGRATION
OF APPRENTICESHIP**

The expansion of knowledge about learning has put new life into the old metaphor of education as apprenticeship. The key idea, derived from the study of a variety of domains of thought and action, has been the discovery that all learning resembles the development of expertise. When medical educators make key features of expert practice visible and available to novices for appropriation, they are providing students with access to the practices that constitute the profession. By giving learners opportunities to practice approximations to expert performance, and giving these students feedback to help them improve their own performance, educators are providing an apprentice-like experience of the mind, a “cognitive apprenticeship.”

Clinical teaching, when well done, already models and promotes the blending of analytical and practical habits of mind that medical

practice demands. The contributors to this volume show why and how that complex educational achievement must be carefully nurtured within a growing understanding of self as physician and member of the profession. To hold these several dimensions together in one view – to see medical formation steadily and to see it whole – I want to propose the metaphor of professional education as a three-fold “apprenticeship.” This three-fold apprenticeship addresses the key dimensions of understanding, judgment, and responsibility.³

The first apprenticeship could be called academic or intellectual, with a focus on the scientific analytical mode of thinking. Its chief focus is understanding and concerns the academic knowledge base of the domain of medicine, including the habits of mind that the faculty judge most important to the profession. The setting is the classroom and the pedagogies employed reinforce the familiar student role, assessing formal knowledge and reasoning through formal testing. Despite its evident removal from the settings of professional practice, this apprenticeship always has high prestige since it links the faculty and the school, and implicitly the whole profession, to those intellectual values that confer legitimacy in the modern university and beyond.

The students’ second apprenticeship emphasizes the cultivation of judgment. Here, the student “apprentices” to the often tacit body of skills shared by competent practitioners. Students encounter this skills-based kind of learning through quite different pedagogies, and often from different faculty members, from those through which they are introduced to the first intellectual apprenticeship. One of the distinctive aspects of the second apprenticeship in medicine is the extensive use of near-peers, resident physicians, who play an important role as teachers of students and transmitters of professional values as well as practices. Here, the learner must take up the stance of an apprentice to the practice, gradually growing into taking responsibility for the outcomes of their interventions with patients.

The third apprenticeship introduces students to the values and dispositions shared by the professional community. It is in this dimension of professional education that the acceptance of responsibility presents the chief formative challenge. It is this dimension of medical education that brings professionalism to the explicit awareness of students and educators alike. Like the second, this apprenticeship is also often taught through dramatic

³ In this, I am drawing upon work in which I have been engaged at the Carnegie Foundation for the Advancement of Teaching, a comparative study of professional preparation across five fields: law, engineering, the clergy, nursing, and medicine. I have sketched an overview of the approach in William M. Sullivan, *Work and Integrity: The Crisis and Promise of Professionalism in America*, 2nd edition (San Francisco: Jossey-Bass Publisher, 2005).

pedagogies of participation. Traditional apprenticeship emphasizes the transmission of expert knowledge through face-to-face contact. When it is employed in today’s professional training, especially in situations in which practitioners rather than pure academics do the teaching, apprenticeship often reveals these ancient roots. In a famous study of surgical residency in a high-technology medical center, Charles Bosk reported that students were rarely washed out for errors of skill alone. They were dismissed when their mentors judged that they lacked the proper character for surgery, especially qualities of dedication, interest, and thoroughness.⁴

To be a professional in the full sense is to understand oneself as claimed by a practice that derives its integrity from service to others. Precisely because that purpose is a public one, today’s physicians need more than a haphazard understanding of the organizational contexts of medical practice. Understanding alone, however, is not enough. Medical education needs to develop physicians who are not only experts but also citizens, both as contributors to their professional communities and as participants and leaders in addressing the health concerns of the larger society. These are the dimensions of professionalism that need most development. In their contributions to the volume, Donald Irvine and Jordan Cohen with Linda Blank speak from experience of struggling with these issues in the United Kingdom and the United States, respectively. Their chapters propose ways of using professionalism as a focus for strengthening links between the preparation of physicians and accrediting bodies as well as the broad public.

Taken together, the contributors articulate an understanding of formative education that is more than “socialization” seen as molding human clay from without. Rather, their focus on medical professionalism helps us see that the key lies in enabling students to become self-reflective about and self-directing in their own development. Seen from the perspective of professionalism, medical education can provide the richest context possible for students to explore and make their own profession’s possibilities for a socially useful and personally fulfilling life.

⁴ Charles Bosk, *Forgive and Remember: Managing Medical Failure* (Chicago: University of Chicago Press, 1979).