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978-0-521-86567-8 - From Teams to Knots: Activity-Theoretical Studies of Collaboration and Learning at Work

Yrjö Engeström

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## From Teams to Knots

Teams are commonly celebrated as efficient and humane ways of organizing work and learning. By means of a series of in-depth case studies of teams in the United States and Finland over a time span of more than 10 years, this book shows that teams are not a universal and ahistorical form of collaboration. Teams are best understood in their specific activity contexts and embedded in historical development of work. Today, static teams are increasingly replaced by forms of fluid knotworking around runaway objects that require and generate new forms of expansive learning and distributed agency. This book develops a set of conceptual tools for analysis and design of transformations in collaborative work and learning.

Yrjö Engeström earned his Ph.D. from the University of Helsinki in 1987. He is a professor of adult education and Director of the Center for Activity Theory and Developmental Work Research at the University of Helsinki. He is Professor Emeritus of Communication at the University of California, San Diego, where he also served as Director of the Laboratory of Comparative Human Cognition from 1990 to 1995. Engeström applies and develops cultural-historical activity theory as a framework for the study of transformations and learning processes in work activities and organizations. He is widely known for his theory of expansive learning and for the methodology of developmental work research.

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## Activity-Theoretical Studies of Collaboration and Learning at Work

YRJÖ ENGSTRÖM

*University of Helsinki*



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Contents

<i>Series Foreword</i>	<i>page</i> ix
<i>Preface</i>	xi
1 Teams and the Transformation of Work	1
2 Disturbance Management and Masking in a Television Production Team	22
3 Teamwork between Adversaries: Coordination, Cooperation, and Communication in a Court Trial	48
4 Displacement and Innovation in Primary Care Medical Teams	64
5 Crossing Boundaries in Teacher Teams	86
6 Knowledge Creation in Industrial Work Teams	118
7 Teams, Infrastructures, and Social Capital	169
8 From Iron Cages to Webs on the Wind	182
9 Knotworking and Agency in Fluid Organizational Fields	199
<i>References</i>	235
<i>Author Index</i>	253
<i>Subject Index</i>	258

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## Series Foreword

This series for Cambridge University Press is widely known as an international forum for studies of situated learning and cognition.

Innovative contributions are being made by anthropology; by cognitive, developmental, and cultural psychology; by computer science; by education; and by social theory. These contributions are providing the basis for new ways of understanding the social, historical, and contextual nature of learning, thinking, and practice that emerge from human activity. The empirical settings of these research inquiries range from the classroom to the workplace, to the high-technology office, and to learning in the streets and in other communities of practice. The situated nature of learning and remembering through activity is a central fact. It may appear obvious that human minds develop in social situations and extend their sphere of activity and communicative competencies. But cognitive theories of knowledge representation and learning alone have not provided sufficient insight into these relationships.

This series was born of the conviction that new and exciting interdisciplinary syntheses are underway as scholars and practitioners from diverse fields seek to develop theory and empirical investigations adequate for characterizing the complex relations of social and mental life and for understanding successful learning wherever it occurs. The series invites contributions that advance our understanding of these seminal issues.

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## Preface

In the social sciences, we study phenomena that change while we are studying them. Being ourselves part of the phenomena we study, we researchers also change as our research objects change.

I began studying work teams in the early 1990s. The endeavor lasted approximately 15 years. This book is structured to reflect that journey. Instead of trying to construct a universal definition of “a good team,” I follow and analyze the historical transformation of work teams in their organizational and cultural contexts. At the same time, I document the transformation of my own understanding. Toward the end of the book, the notion of team fades into the background and a new notion, knotworking, steps into the center.

The research journey of this book takes the reader to visit teams in a variety of workplaces in Finland and the United States. It also crosses boundaries among disciplines, notably among education, communication, and organization studies.

Cultural-historical activity theory is the unifying thread of the book. This is a general framework that requires creation and employment of context-specific intermediate concepts and methods every time it is applied to a specific empirical case. These intermediate theoretical concepts and methods are in themselves important outcomes of the research.

The empirical chapters of this book have collaborative histories of their own. The first version of Chapter 2 was written with Dennis Mazzocco and presented as a paper at the conference of the International Communication Association in 1995. The first version of Chapter 3 was written with Katherine Brown, Carol Christopher, and Judith Gregory and published in 1991 in the *Quarterly Newsletter of the Laboratory of Comparative Human Cognition* (Vol. 13, pp. 88–97). The first version of Chapter 6 was published in 1999 as a chapter in the *Perspectives on Activity Theory*, edited by

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[More information](#)

Yrjö Engeström, Reijo Miettinen, and Raija-Leena Punamäki (Cambridge: Cambridge University Press). The first version of Chapter 7 was written with Heli Ahonen and published in 2001 as a chapter in *Information Systems and Activity Theory, Volume 2: Theory and Practice*, edited by Helen Hasan, Edward Gould, Peter Larkin, and Lejla Vrazalic (Wollongong: Wollongong University Press). The first version of Chapter 8 was published in 1999 in the journal *Lifelong Learning in Europe* (Vol. 4, pp. 101–110). And the first version of Chapter 9 was published in 2005 as a chapter in the *Collaborative Capital: Creating Intangible Value*, edited by Michael M. Beyerlein, Susan T. Beyerlein, and Frances A. Kennedy (Amsterdam: Elsevier).

In the early phase of my research on teams, the Academy of Finland funded the work. In 2004–2005, the Academy of Finland again funded my sabbatical, during which I wrote the manuscript of this book. Throughout the journey, the communities of the Center for Activity Theory and Developmental Work Research at the University of Helsinki and of the Laboratory of Comparative Human Cognition at the University of California, San Diego, have been the intellectual and social homesteads for my research.

The drawings in Chapter 6 were made by Georg Engeström. I thank him for his lifelong support.

The love and collaboration of Annalisa Sannino and our son, Jurij Enzo, made it possible for me to complete this journey.