In this volume, Lave and Wenger undertake a radical and important rethinking and reformulation of our conception of learning. By placing emphasis on the whole person, and by viewing agent, activity, and world as mutually constitutive, they give us the opportunity to escape from the tyranny of the assumption that learning is the reception of factual knowledge or information. The authors argue that most accounts of learning have ignored its quintessentially social character. To make the crucial step away from a solely epistemological account of the person, they propose that learning is a process of participation in communities of practice, participation that is at first legitimately peripheral but that increases gradually in engagement and complexity.
Situated Learning
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Continued on page following the Index
Situated Learning
Legitimate Peripheral Participation

JEAN LAVE
ETIENNE WENGER
It occurred to us at the same moment to dedicate this book to each other. We do so as a celebration of an extraordinarily happy collaboration, in which we experienced many of the things we were writing about.
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Series Foreword

The situated nature of learning, remembering, and understanding is a central fact. It may appear obvious that human minds develop in social situations, and that they use the tools and representational media that culture provides to support, extend, and reorganize mental functioning. But cognitive theories of knowledge representation and educational practice, in school and in the workplace, have not been sufficiently responsive to questions about these relationships. And the need for responsiveness has become salient as computational media radically reshape the frontiers of individual and social action, and as educational achievement fails to translate into effective use of knowledge.

This series is born of the conviction that new and exciting interdisciplinary syntheses are under way, as scholars and practitioners from diverse fields seek to analyze and influence the new transformations of social and mental life, and to understand successful learning wherever it occurs.

Computational media include not only computers but the vast array of expressive, receptive, and presentational devices available for use with computers, including interactive video, optical media such as CD-ROM and CD-I, networks, hyper-
Series Foreword

media systems, work-group collaboration tools, speech recognition and synthesis, image processing and animation, and software more generally.

These technologies are dramatically transforming the basic patterns of communication and knowledge interchange in societies, and automating the component processes of thinking and problem solving. In changing situations of knowledge acquisition and use, the new interactive technologies redefine – in ways yet to be determined – what it means to know and understand, and what it means to become “literate” or an “educated citizen.”

The series invites contributions that advance our understanding of these seminal issues.

Roy Pea
John Seely Brown
Foreword by William F. Hanks

I first encountered these ideas in spring of 1990, when Jean Lave spoke at the Workshop on Linguistic Practice at the University of Chicago. There were about a dozen of us, mostly working on problems in language use and interaction; mostly anthropologists, linguists, or hybrids; several with research commitments to a non-Western language. I had just completed a study of reference as a social practice, in which I analyzed Yucatec Maya language use in its linguistic, indexical, and cultural contexts (1990). One of the central issues being pursued in the workshop was the relation between context and literal meaning or, in somewhat more technical terms, the role of indexicality in semantics. Coming from this angle, Lave and Wenger’s work was really exciting because it located learning squarely in the processes of coparticipation, not in the heads of individuals. The analogy to language was just below the surface, only occasionally made explicit during several hours of very fruitful discussion, and yet many of us felt that we had gained new insights into problems of language. We had already been exploring speech as interaction, trying to take meaning production out of the heads of individual speakers and locate it in the fields of social interaction. The 1990 presentation, and Jean Lave’s ability to engage intellectually in
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the issues it raised, provoked some of the best discussion we have enjoyed. My first reason for mentioning this background, then, is to say that this book, on which the speech was based, is very productive in the sense of setting forth a strong, provocative position on issues that are of basic significance to practice theory quite generally, and not only to how practice grounds learning. The second reason is simply to underscore the fact that my remarks in this foreword come from a certain perspective, and are necessarily selective.

Situated Learning contributes to a growing body of research in human sciences that explores the situated character of human understanding and communication. It takes as its focus the relationship between learning and the social situations in which it occurs. Rather than defining it as the acquisition of propositional knowledge, Lave and Wenger situate learning in certain forms of social coparticipation. Rather than asking what kinds of cognitive processes and conceptual structures are involved, they ask what kinds of social engagements provide the proper context for learning to take place. This shift has interesting consequences, which relate the book to a broad set of interdisciplinary issues.

On the one hand, it implies a highly interactive and productive role for the skills that are acquired through the learning process. The individual learner is not gaining a discrete body of abstract knowledge which (s)he will then transport and reapply in later contexts. Instead, (s)he acquires the skill to perform by actually engaging in the process, under the attenuated conditions of legitimate peripheral participation. This central concept denotes the particular mode of engagement of a learner who participates in the actual practice of an expert, but only to a limited degree and with limited responsibility for the ultimate product as a whole. There is no necessary implication
that a learner acquires mental representations that remain fixed thereafter, nor that the “lesson” taught consists itself in a set of abstract representations. On the contrary, Lave and Wenger seem to challenge us to rethink what it means to learn, indeed to rethink what it means to understand. On this point their project joins a growing literature in cognitive studies, discourse analysis, and sociolinguistics, which treats verbal meaning as the product of speakers’ interpretive activities, and not merely as the “content” of linguistic forms. The common element here is the premise that meaning, understanding, and learning are all defined relative to actional contexts, not to self-contained structures.

On the other hand, the shift also alters the locus of learning. In a classical intellectualist theory, it is the individual mind that acquires mastery over processes of reasoning and description, by internalizing and manipulating structures. Like thinking, learning so construed takes place in the individual. Two people may well learn the same thing, just as they may derive what is for all practical purposes the same understanding, yet this is a matter of coincidence, not collaborative production. The challenge of this book is surely deeper: Learning is a process that takes place in a participation framework, not in an individual mind. This means, among other things, that it is mediated by the differences of perspective among the coparticipants. It is the community, or at least those participating in the learning context, who “learn” under this definition. Learning is, as it were, distributed among coparticipants, not a one-person act. While the apprentice may be the one transformed most dramatically by increased participation in a productive process, it is the wider process that is the crucial locus and precondition for this transformation. How do the masters of apprentices themselves change through acting as colearners and,
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despite, how does the skill being mastered change in the process? The larger community of practitioners reproduces itself through the formation of apprentices, yet it would presumably be transformed as well. Legitimate peripheral participation does not explain these changes, but it has the virtue of making them all but inevitable. Even in cases where a fixed doctrine is transmitted, the ability of a community to reproduce itself through the training process derives not from the doctrine, but from the maintenance of certain modes of coparticipation in which it is embedded.

As a corollary of these shifts, the framework of this book implies a constitutive role in learning for improvisation, actual cases of interaction, and emergent processes which cannot be reduced to generalized structures. Here it joins developments in those social sciences where phenomenological, interactive, and “practice”-centered approaches have gained importance. One of the basic moves of such approaches has been to question the validity of descriptions of social behavior based on the enactment of prefabricated codes and structures. Instead, the focus on actors’ productive contributions to social order has led naturally to a greater role for negotiation, strategy, and unpredictable aspects of action. This shift has far-reaching and as yet little-understood consequences for how one describes human thought, communication, and learning. The challenge, it would seem, is to rethink action in such a way that structure and process, mental representation and skillful execution, interpenetrate one another profoundly. It is important to see that Lave and Wenger reject both of the obvious extremes in responding to this challenge.

In a classical structural analysis, aspects of behavior are explained by, and serve as empirical evidence for, preexisting, “underlying” systems. It is these systems that provide the ob-
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ject of which an analysis is a model. To the extent that actual processes are analyzed, they are “structuralized” – made to follow from, or instantiate, structures. The activity of understanding, in such a view, comes down to recognizing and implementing instances of structure, filling them in with an overlay of situational particulars, and relating them to a “context” (which is in turn structured). Insofar as “understanding” is something a person does in his or her head, it ultimately involves the mental representations of individuals. Understanding is seen to arise out of the mental operations of a subject on objective structures. Lave and Wenger reject this view of understanding insofar as they locate learning not in the acquisition of structure, but in the increased access of learners to participating roles in expert performances.

The other extreme position would be sheerly interactive, rejecting altogether the premise that structures may preform aspects of experience. Here, too, the position implicit in this book is nuanced. For Lave and Wenger do not reject the notion that participation frameworks are structured – it is precisely this that provides the conditions for legitimate peripheral participation – nor do they deny that expert performance is systematic. The hard question is what kind of system, and what kind of structure? It is not merely that the structural issue is transposed from the level of mental representations to that of participation frames. Rather, this transposition is compounded by a more subtle and potentially radical shift from invariant structures to ones that are less rigid and more deeply adaptive. One way of phrasing this is to say that structure is more the variable outcome of action than its invariant precondition. Preexisting structures may vaguely determine thought, learning, or action, but only in an underspecified, highly schematic way. And the structures may be significantly reconfigured in
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the local context of action. Such a conception retains a constitutive role for the actual activities in which learners engage, while still avoiding the extreme position which denies any pre-fabricated content in what they learn.

Given this framework, learning could be viewed as a special type of social practice associated with the kind of participation frame designated legitimate peripheral participation (LPP). Under this reading, Lave and Wenger’s proposal gives learning an actional ground, but retains its discreteness as a category of action. Alternatively, and clearly more in line with their goals, it can be viewed as a feature of practice, which might be present in all sorts of activities, not just in clear cases of training and apprenticeship. Think of all the everyday situations in which people coparticipate to a limited extent, thereby gaining access to modes of behavior not otherwise available to them, eventually developing skill adequate to certain kinds of performance. Participating members of religious congregations, athletes training together, the third string on a team, spectators at any public event, faculty and students in a university setting, new friends, the home bricoleur who helps a tradesperson repair his porch, nonmechanics when they describe the problems with their cars to mechanics, patients being treated by doctors — all of these interactions initially involve limited, highly asymmetric forms of coparticipation. All seem to have the potential to transform the participants, even if their trajectories and thresholds of change differ widely. In actual empirical studies of LPP, it will be important to consider critically the range of contexts it is meant to describe, from institutionally circumscribed training all the way to the learning immanent in everyday activities. At the latter extreme, both limited peripheral engagements and the potential for change would seem to be present whenever one party to an activity is more skilled
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more skilled or expert (in some relevant way) than another. Such a liberal reading of the LPP concept runs the risk of erasing its specificity, but has the advantage of tying it into all kinds of practice. Furthermore, one could suggest that learning would be likely to take place whenever people interact under conditions of LPP. This would imply that certain participation frameworks may be ‘dispositionally adapted’ to producing learning, even if the coparticipants are not attempting to acquire or inculcate identifiable skills. Language acquisition, where the learner is a legitimate peripheral participant interacting with masterful speakers, may well involve this. A child interacting with adults and an outsider habituating himself to local ways of speaking may be submitting to and ultimately reproducing community standards of which they never become aware. This kind of pervasive, low-level learning can be seen when speakers acquire regional accents or turns of phrase despite themselves, or when students come to reproduce aspects of the performance style of a charismatic teacher. Clearly, on such a general reading of learning, the trajectories followed by those who learn will be extremely diverse and may not be predictable. The challenge for a community that seeks to reproduce itself would be to regiment the interactions in which learning is likely to occur, as well as the outcomes to which it may lead.

It is clear that in many learning contexts, even quite narrowly defined, participants may disengage before attaining mastery over core skills. In such cases, they may leave the learning context with some but not all of the relevant skills, transporting what they have learned into another context. The question seems to be how one describes the detachability of these skills from the participatory contexts in which they were acquired. If both learning and the subject learned are embed-
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ded in participation frameworks, then the portability of learned skills must rely on the commensurability of certain forms of participation. The employee who rises up through the ranks, performing a variety of tasks which she must later integrate as a manager, has in effect learned modes of acting and problem solving, not a system of rules or representations. Presumably, the success of a learner changing work contexts, and therefore integrating into new participation frameworks, would depend upon his or her ability to move between modes of coparticipation. This ability could be described in two quite different ways. One could assume that participation is schematized and that what is transported by the effective learner is an expanding repertoire of participation schemata. This reintroduces the notion of learning as structure acquisition. Alternatively, one could insist that participation is not schematized that way, and that what the effective learner learns is how to actually do practices. A schema cannot explain its own use, manipulation, or role in future improvisations. On this aspect, it seems necessary to posit that the skillful learner acquires something more like the ability to play various roles in various fields of participation. This would involve things other than schemata: ability to anticipate, a sense of what can feasibly occur within specified contexts, even if in a given case it does not occur. It involves a prereflective grasp of complex situations, which might be reported as a propositional description, but is not one itself. Mastery involves timing of actions relative to changing circumstances: the ability to improvise. By tying learning into participation, the notion of LPP leads us to think again about what it means for knowledge to be portable. Notice that the ability to engage in LPP, and the ability to learn, would presumably be acquired as well. The relative transparency of a learning context would depend not on features of the context

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per se, but on the preparedness and flexibility of the learner. (This is not to deny that contexts may be relatively transparent or opaque in terms of the level of preparedness they require on the part of a learner.)

Taken in relation to a single craft that is taught through “hands-on” legitimate peripheral participation, the ability to learn would develop in close relation to the ability to perform tasks. On the other hand, a training program that consists of instructional settings separated from actual performance would tend to split the learner’s ability to manage the learning situation apart from his ability to perform the skill. Given a sufficient disjunction between the skill being taught and the actual performance situation, one could imagine an actor who becomes expert as a learner – that is, who becomes a master at managing the learning situation – but who never actually learns the performance skills themselves. This possibility seems to be what periodic tests of performance are supposed to guard against. In an apprenticeship relation, where the learner is actually performing routinely, this kind of abstract exam is less relevant.

Insofar as learning really does consist in the development of portable interactive skills, it can take place even when coparticipants fail to share a common code. The apprentice’s ability to understand the master’s performance depends not on their possessing the same representation of it, or of the objects it entails, but rather on their engaging in the performance in congruent ways. Similarly, the master’s effectiveness at producing learning is not dependent on her ability to inculcate the student with her own conceptual representations. Rather, it depends on her ability to manage effectively a division of participation that provides for growth on the part of the student. Again, it would be this common ability to coparticipate that
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would provide the matrix for learning, not the commonality of symbolic or referential structures. (Of course the two may be interwoven in given cases, depending upon the nature of the skill.)

This last point raises a question about language in learning. In Chapter 4, Lave and Wenger rightly question the idea that verbal explanation is a uniquely effective mode of instruction, somehow superior to direct demonstration. Given the rest of their approach, the inverse claim would appear more natural. Quite simply, if learning is about increased access to performance, then the way to maximize learning is to perform, not to talk about it. The notion that demonstration is context specific and explanation context independent is based on an impoverished notion of both. A word of caution is merited here, lest Lave and Wenger’s position be misunderstood, for this critique might appear to treat language as a code for talking about the world. As they recognize, a significant body of theory and research has shown that speech is equally a means of acting in the world. The point is germane, since language use entails multiple participatory skills, and is one of the most basic modes of access to interaction in social life. To equate discourse with reflections on action, instead of action itself, would be to fall prey to the very structural views that Lave and Wenger undermine in their approach to learning. Indeed, as they point out, the role of language in learning is likely to be highly differentiated, and a powerful source of evidence for the other ongoing modes of participation. At the least, the co-participants in communication among masters, learners, patients (etc.) provide part of the necessary background against which LPP must be defined. Once we see discourse production as a social and cultural practice, and not as a second-order representation of practice, it becomes clear that it must be con-
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figured along with other kinds of work in the overall matrix of performance. It also becomes important to investigate retellings and discussions that take place between and around performance events, and between learners and their respective communities. Rather than slipping back into the structure-acquisition model, such an investigation of language would contribute to a more deeply historicized account of situated learning.

Attention to linguistic action may also help sort out a very tricky question regarding LPP, namely, whether it designates a kind of role configuration that actors may engage in or, rather, a way of engaging. Students of conversation have shown that a single party to an interaction may simultaneously fill several roles, and that, under proper circumstances, a single role can be occupied by more than one interactant. To the extent that LPP works at the level of how roles are occupied, we would be inclined to say that it is a way of engaging, not a structure in which engagement takes place. As such, it may be characterized by the partiality of the apprentice’s contribution to the whole, or by the fact that the apprentice is simultaneously attending to the task at hand and to how the master performs in relation to it. In other words, LPP is not a simple participation structure in which an apprentice occupies a particular role at the edge of a larger process. It is rather an interactive process in which the apprentice engages by simultaneously performing in several roles – status subordinate, learning practitioner, sole responsible agent in minor parts of the performance, aspiring expert, and so forth – each implying a different sort of responsibility, a different set of role relations, and a different interactive involvement. One would expect that the role configurations in which LPP takes place would differ widely through time and space, and even over the course of a single appren-
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ticeship, yet the interactive prise de conscience, the way the learner places himself in relation to the whole, would remain consistent. Under such a view, LPP is not a structure, no matter how subtly defined, but rather a way of acting in the world which takes place under widely varying conditions.

This last remark raises a final, still broader suggestion that is implicit in the book, namely, that learning is a way of being in the social world, not a way of coming to know about it. Learners, like observers more generally, are engaged both in the contexts of their learning and in the broader social world within which these contexts are produced. Without this engagement, there is no learning, and where the proper engagement is sustained, learning will occur. Just as making theory is a form of practice in the world, not a speculation at a remove from it, so too learning is a practice, or a family of them. This entailment of Lave and Wenger’s provocative book brings it into line with important developments in a range of other human sciences.

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Jean Lave
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