

Dokumentation

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On Learning¹

Introduction

After considerable thought I would nominate as one of the most boring moments of my life an afternoon in Spring, warm and sunny with a brilliantly blue sky visible at an angle upwards through a high window, sitting as an undergraduate student in a course on learning theory. Hull, it was that day. For many years I've worked among anthropologists, social theorists, and scholars in the area of social studies of science who at times have found themselves accidentally engaged in debates about learning, having plunged with different intentions into issues about social practice. „Collective distraction,“ a recent characterization of learning by anthropologist Michael Taussig (1992) is indeed not a bad description of the process. There are reasons why inattention or unintention to learning has been what I take to be a standard stance in the social sciences. There are uninteresting, but powerful reasons: outdated disciplinary divisions of labor, and the reduced, trivialized understanding of learning that has emerged therefrom. There are more interesting reasons: the disruptive effects on theoretical practice when „learning“ takes on independent conceptual status - in general not afforded it even in research that claims to be about learning.

Silence with respect to learning has in practice not succeeded in ridding us of the problem(s) it represents, for the issue of learning is indivisible from the most basic, ubiquitous issues in the historical culture of Western social thought. Anthropology, for example, addresses questi-

¹ I have been inspired for many years by Klaus Holzkamp's exemplary life and the breadth and depth of vision in his life's work. Indeed, many of the intellectual relations and friendships that nurture my life and work have developed through my efforts to learn more about his work. My attempts to move towards a more open understanding of learning owe a deep debt to Klaus Holzkamp's long term project on learning.

ons about how social formations are reproduced, how social formations change, and how traditions are invented, or resisted, or connived at. All imply that people learn to take part in and be part of complex social worlds, whatever that might mean. Further, research on socialization, enculturation, cultural transmission, child rearing, schooling, inculcation, apprenticeship, initiation, training, and work on the acquisition of variously knowledge, dispositions, Ideological State Apparatuses, discourses, or popular culture all require that somehow persons become in important ways different as participants in social life from whom they were. How? However one chooses to respond lies in a ballpark that could be called „learning.“

The problem of learning could be conceived in social and historical terms as changing participation in changing social practice. My research on apprenticeship in West Africa and everyday math practices in Southern California, recommends such a perspective: as a matter of substantial, identity-changing transformational projects that can only take place in changing, partial participation in ongoing social practice.

Psychologists who have been thoughtfully self-critical on the subject of learning seemed to think that forty years of work had not added up to much: Steinar Kvale (1976) tells us that, by their own evaluation, classical learning theorists and those who came after them agree that learning theory has not contributed to illuminating (much less improving) educational processes. Thus, he quotes from Hilgard and Bower's book on theories of learning:

It has been found enormously difficult to apply laboratory-derived principles of learning to the improvement of efficiency in tasks with clear and relatively simple objectives. We may infer that it will be even more difficult to apply laboratory-derived principles of learning to the improvement of efficient learning in tasks with more complex objectives.

Kvale argues that nonetheless this body of work during the first half of the 20th century had an impact on institutionalized education indirectly. Though different from each other, what classical theories had in common was to turn learning and its study into a „scientific“ enterprise, making it into a technology of improvement. Where did the pipeline model of educational production of human capital come from? Most researchers turn to the history of ideas; Kvale to the influence of industrial production, arguing the origin in industrial psychology of much of the basic assumptions of learning psychology (Kvale 1976).

Recently, the field of learning in American psychology seems to have disappeared from academic settings. At least it has fallen out of mention in official compendiums of disciplinary wisdom. For example, while „Learning“ appeared as a major signed article in *The Encyclopedia of Educational Research* in the first five editions 1941, 1950, 1960, 1969,

and 1982, it does not appear at all in the latest edition, 1992 (Ford n.d.).² Most of what remains appears to focus on „learning disabilities,“ - only the „problem“ cases. Which is not to say that old theories die. Carsten Osterlund (1996) finds similar assumptions underlying contemporary cognitivist approaches to education and the training efforts of major American corporations. „. . .[S]tudies of memory lie at the heart of a theory that perceives learning as a cumulative process where individuals gradually internalize more and more complex and abstract entities. Issues of learning, and in particular teaching, end up dealing with what elements of skills and knowledge one needs to present to learners, in what form, and in what order, to enhance the individual's encoding, storage and retrieval.“ (Osterlund 1996: 43). Much of the focus is on „learning mechanisms“ for putting knowledge into memory. This supports the technology hypothesis of Kvale. Osterlund goes on to point out that popular textbooks on learning today (e.g., Atkinson & Hilgard 1993; Zanden 1980) have nothing to say about the subject-world relations entailed in such theories. But there are hints: (He discusses Bandura, Gagné, etc.):

Individuals internalize elements from their environment which they can bring to bear on a problem-solving situation. These elements can be concepts, categories, patterns of behavior, or models. Thus, the subject and the world are taken to be entities of two distinct types. The world is a largely undefined environment with no history, or political and cultural differences....related as soup to bowl....As the relationships between the two entities appear rather unproblematic little effort is put into describing what happens when learners move between different environments (from bowl to bowl). When discussed, the term 'transfer' describes this process. (Osterlund 1996: 45).

Nobody talks much about transfer, but the associationist view relates transfer to features of the environment, whereas Judd focuses on the abstract elements internalized and carried by the subject. The subject and the world are two separate units not defining each other. Either one has to focus on the structures of the environment (bowl) or the subject's mental entities (soup). (Osterlund 1996: 45).

But if techno-industrial learning ideologies have deposited a view of learning as short-term mental exercise intended to stuff information into disembodied memory warehouses (see Kvale 1977), they do not encompass the range of interest in learning across the social sciences today. Recent work, especially that of Klaus Holzkamp, takes a broader, social, critical scope. It makes clear that it is possible to address lear-

² Ford (n.d.) argues that "Kvale's prophecy that 'the psychology of learning (would) turn to an educational technology' has come to pass in at least one important forum" - the Encyclopedia (sponsored by the American Educational Research Association) whose historical transformation he examines in detail.

ning in just about any setting of social activity - not only in institutions intended for 'education.' We can talk of learning without trivializing it to a matter of simple mental tasks or problem solving but in more recognizable and interesting terms about human projects. Learning can be understood as part of subjects' *moving*, changing participation across the multiple contexts of their daily lives. Recent work on learning treats as a matter of course the heterogeneous and partial character of knowledge and the inflection of learning processes in conflict and political hierarchy. Partial participation by different participants in contexts where learning is going on and in and across communities of practice. There are rich examples appearing of research studies by new scholars. This work makes it possible to fill a remarkable silence in social theory about the social nature of learning.

Between 1973 and 1978 I made five field research trips to West Africa to explore the apprenticeship of Vai and Gola tailors as they sewed clothes for very poor customers in a cluster of small shops along a dirt path at the edge of the commercial district in Monrovia, the capital city of Liberia. I have come back to the ethnographic and even the experimental results of that work over and over, because as I did so my understanding of learning changed. But I also come back to it because as the work of others has changed my understanding of learning, including very importantly the work of Klaus Holzkamp and critical social psychology - I think especially of his recent book on Learning - it seemed necessary to reconsider the process of apprenticeship among the tailors as well. The process of exploring the nature of learning still seems open, a state of affairs I have learned to treat cheerfully and with respect in part through becoming more knowledgeable about the work of colleagues in Berlin.

It may seem odd to leave the university, bypass public schools in the U.S. and Europe, travel to West Africa, and focus on local practices of apprentices at work. I'll suggest specific reasons for doing so as I go along. But the general answer lies in the long history, shared for the most part by anthropology, psychology, sociology and social theory of viewing learning as a special kind of individual, short term mental exercise; this has been embedded in and confounded with a naturalized view of institutionalized teaching in schools; and curiously, „learning“ has been the lynch pin of pervasive assumptions about the reproduction of social order - considered as a process of unproblematic transmission and internalization of culture and customs, values, rules and roles.

Research on Apprenticeship in Liberia

There were 100 masters and 150 apprentices in the Tailors' Alley in Monrovia where the Vai and Gola tailors worked. Accomplished tailors made mostly ready-to-wear trousers, a pair or two at a time, working at foot-treadle sewing machines, and using the profits of one day's sales to

buy the materials to make the next few pairs of trousers. Many of the masters took apprentices, one new one every few years, so that co-apprentices would be differently situated with respect to the ways in which they could participate in the ongoing life of the shop. (None of the masters were wealthy enough to take two new apprentices at the same time, for they would then occupy similar positions in the division of labor rather than complementary ones.) I spent many hours in tailor shops getting to know the tailors and apprentices, taking note of the ups and downs of daily happenings and local gossip, while I tried to figure out what apprenticeship was all about.

A major aspect of the research on tailors focused on a claim characteristic of dualistic theories of learning. Such theories assume that possibilities for creative activity and the production of new 'knowledge' are limited to certain kinds of education. One kind of learning is supposed to underwrite such 'capabilities' while the other supposedly does not. Apprenticeship is often assumed to merely reproduce existing practices in narrow and literal terms. So I was interested in the issue of whether mechanical reproduction of skill at for instance, making trousers, would be the only outcome of years of apprenticeship. I began to inquire into just what was being learned by the apprentices, and the most immediate response was a long list of the kinds of garments apprentices needed to learn to make: hats and children's underwear, short trousers, long trousers, Vai shirts and sport shirts, lapa suits and ladies' dresses, Muslim prayer gowns and finally the Higher Heights suit. Conventional approaches to this agenda for learning tailoring might focus on the subtasks involved in learning to literally produce these garments. But gradually I came to see that it was impossible to learn to cut out trousers without learning about other political economic and cultural practices in which trousers play a part; and in which apprentices participate in the multiple practices of their everyday lives: I found that the apprentices were learning many complex 'lessons' at once. To name a few: They were learning to make a life, to make a living, to make clothes, to grow old enough and mature enough to become master tailors, and to see the truth of the respect due to a master of their trade. In becoming acquainted with the sequence of garments they were learning to make, tailors' apprentices were learning as well the sequence and relations of informal and marginal to formal and socially important clothing, social categories, and occasions. It seems trivially true that they were never doing only one of these things at a time. The shifting practice of tailoring across the lifetime, the daily round of life as a master, and the practice of learning to tailor were all similarly patterned but differently lived aspects of life in the tailor shops. Presumably these are common parts of all effective learning practices, breaking down distinctions between learning and doing, between social identity and knowledge, between education and occupation, between form and content. And at the same

time they suggest that intricate *relations* between practices, space, time, bodies, social relationships, life courses - ubiquitous facets of ongoing communities of practice - are both the content and the condition of effectiveness of learning. These examples offer grounds for arguing that multiply, richly structured processes of learning are characteristic of the tailors' apprenticeship. This claim is quite different from the argument that „informal learning“ is impoverished simple, non-creative and narrowly about acquiring concrete task knowledge.

It is now possible to take a long view of the research on tailors' apprenticeship, and to see fairly clearly how it transformed my understanding of learning in three major respects. First of all, I admired the Vai and Gola tailors' apprenticeship, while (according to the values embedded in conventional assessments of schools as much more powerful sites of education than apprenticeship) I should reserve my admiration for schooling. This opened the value-laden meaning of each part of the model to a new perspective and the possibility of new conclusions. Why was the tailors' apprenticeship an appealing kind of educational practice? I happened upon a case of enormously effective education. It was benign and even inexpensive. The result, for very poor people who might be expected to experience their lives and themselves as miserable in all senses of that word, was a strong sense of their worth and self-respect. They were without a doubt poor, *and* able, respected and self-respecting, with a 'take' on the world that had a considerable penetration of the real conditions of their lives. 85% or more who started as tailors apprentices finished, and continued their practice as tailors. In short, given dualist beliefs about apprenticeship in contrast with school learning, the asymmetrical value placed on the two sides shifted to a view that valued apprenticeship positively. This shift in view did not lead to an argument that school should be replaced by apprenticeship or that apprenticeship should displace teachers from classrooms. Neither U.S. school practices nor Liberian apprenticeship can be copied into other times and places, for they are historically, socially situated practices, deeply interconnected with other practices beyond their immediate purview. Rather, it led to the view that better understanding of learning in apprenticeship settings might be a resource for better understanding how learning transpires in other historical circumstances, including U.S. schools today.

Second, research on apprenticeship transformed my understanding of just *who* the central actors are in theories of socialization, cultural transmission, or learning. From the point of view of the dualist formal/informal model, or of cognitive theory which dominates much research on learning and education in the U.S. today, culture becomes shared via cultural *transmission*. It is the transmitter's point of view that is implicitly privileged. By contrast, one central point of the apprenticeship research is that learning is the more basic concept, and that teaching (transmission) is something else. Teaching certainly is an object for analytical inquiry, but not an explanation for learning. Indeed whole apparatuses of explanation for learning are cultural artifacts about teach-

ing and they are in need of explanation. Our understanding of both learning and teaching are thus problematic, inviting new analysis which in turn requires novel analytic units and new questions.

The third transformation growing out of the research on West African tailors' apprenticeship concerns the situated character of activity in the daily practices of people's lives. The tailors' apprenticeship as a whole was an elegant illustration for this. Yet there is nothing even revisionist about recognizing the situated character of apprenticeship. After all, the concrete, „context-embedded,“ immediate confinement of learning in educational forms such as apprenticeship is basic in claims of dualist theories of learning. Such theories insist on the importance of removal from immediate circumstances in order for powerful, knowledge-producing learning to occur (assuming that other educational experiences such as apprenticeship cannot produce it).

But there was another facet of the research on Vai and Gola tailors that made possible an attempt to break with the dualistic view of context-embedding. All those years ago in Liberia I was intent on developing a critique of cross-cultural research on learning transfer. So I invented a dozen „learning transfer“ experiments in an attempt to test widespread assumptions that schooling provided a unique kind of mental training that „context embedded, informal education“ was supposed to be too concrete to impart. Math seemed to be a reasonable subject for these experiments, for transforming quantities was part of both Liberian schooling and tailoring practices. After much analysis of experimental protocols describing the problem-solving activity of the tailors, it became clear that whether the tailors had been to school or not, they worked on math in tailor shops very differently than in the experiments. This led me back to the tailor shops for another round of ethnographic fieldwork to try to characterize everyday math. The differences were striking, leading to the conclusion that the tailors' math practices - that were supposed to be quintessential „formal,“ „abstract,“ „decontextualized“ kinds of knowledge from the point of view of the formal/informal model - were socially situated, and had a contextually embedded character. This in turn led to the conclusion that it was not just the informal side of life that was composed of intricately context-embedded and situated activity: there is nothing else.

And further, if there is no other kind of activity except situated activity, then there is no kind of learning that can be distinguished theoretically by its „de-contextualization,“ as rhetoric pertaining to schooling and school practices so often insists. This has two implications at least: 1) that decontextualization practices, are socially, especially politically, situated practices (Lave 1993). 2) Examples of apprenticeship, which do not mystify and deny the situated character of learning, offer an easier site for the understanding and theorizing of learning than do schools. For the latter institutionalize, and are predicated on, wide-

spread beliefs about learning that are called into question by views of learning as situated activity. Nothing here would surprise critical psychologists, I believe: For decoupling learning from teaching and arguing that learners learning in practice is the basic issue, were conclusions long anticipated by Klaus Holzkamp's work on learning.

The research on the tailors did not result immediately or even very soon in an alternative to the theory for which it offered a critique. It did impel me to go looking for ways to conceptualize learning differently, encouraged by those three interconnected transformations that resulted from the project (1) a reversal of the polar values assumed to reflect differing educational power for schooling and „other“ forms of education; 2) a reversal in perspective so that the vital focus of research on learning shifted from transmitters, teachers or care givers, to learners; and 3) a view of learning as socially situated activity. This work couldn't replace existing theories, but it provided incentives to ask new questions about learning.

From apprenticeship to social practice theory

Those new questions included, among others: What are theories of learning „about?“ What is a theory of learning? What would happen if we stopped reifying learning and began to think of learning as something historically specific? These questions were taken up in a series of seminars - a reading group at the Institute for Research on Learning at a certain productive moment in its history, a seminar with Paul Duguid on the educational implications of early British cultural studies at the University of California, Berkeley, a seminar on Subjectivity and Social Practice with critical social psychologist Ole Dreier from Copenhagen University, and a seminar on Everyday Life and Learning with Martin Packer. As colleagues and students we have explored these issues over the last half dozen years or more.

First, we asked ourselves, what are theories of learning *about* ? I suspect the most common assumption is that they are about individuals' psychological processes. But though this assumption is worth critical examination, that is not the primary point here. What seemed far more startling is the incredibly narrow, pervasive history of philosophical and later psychological treatments of „learning“ as wholly an epistemological problem - it was all about knowing, acquiring knowledge, beliefs, skills, changing the mind, moving from intuitions to rules, or the reverse, and that was all. Just as the history of philosophy is sometimes characterized as an abstract, individual, or „third person singular“ project, so, by only a very slight shift and extension of meaning, is the project of theorizing about 'education,' knowledge, culture, and their production and reproduction.

Second, we began to wonder about theories of learning themselves. Martin Packer and I decided to explore the social theoretical underpin-

nings of theories of learning and everyday life, since clearly they were intertwined and also displayed interesting differences.³ The first breakthrough was Martin's. He wanted to know what *is* a theory of learning. I could point to some, but had no idea what one was. He only asked because he already had an answer in mind: At minimum, he proposed, a theory of learning consists of three kinds of stipulations: a *telos* for the changes implied in notions of learning; the basic relation assumed to exist between subject and social world; and mechanisms by which learning is supposed to take place.

telos: that is, a direction of movement or change of learning (*not* the same as goal directed activity)

subject-world relation: a general specification of relations between subjects and the social world (not necessarily to be construed as learners and things to-be-learned)

learning mechanisms: ways by which learning comes about.

We found this a liberating analytic tool. (Osterlund 1996, quoted above, also has used it to good effect.) It consisted of a set of questions for interrogating anything claiming to be an example, or for that matter a theory, of learning. It provided a way to organize our understanding around an inventory of things it seemed essential to know in every case. It gave us a kind of creative license to play with what learning might be about. Further, the notion of *telos* seemed useful in turning the focus away from a vista of educational goals set by societal, cultural authorities, which would make teaching the precondition for learning. It encourages instead a focus on the trajectories of learners as they change. „Learning mechanisms“ also seem obviously relevant to understanding how learning comes about.⁴ The centrality of assumptions about subject-world relations may seem less obvious. But different epistemologically-based theories depend on the variable answers to two questions: where does reality lie (in the world or in the subject)? And how can we come to know it (depending on where „it“ is)? And if one adopts the perspective proposed here, the subject-world relation is central also, though conceived differently. The question is, „how is the objective world socially constituted, as human beings are socially produced, in

³ The term "everyday" has become salient in efforts to develop more socially-grounded approaches to cognition, thinking, and speaking, and in anthropological and linguistic studies of social practice. To the extent that it is used casually as an equivalent to "social practice" or "situated activity," it requires investigation as to its own role in the recent history of social thought.

⁴ More recently I have come to question both the characterization of learning processes in terms of "mechanisms," and the reification of learning as a separate kind of process (Lave, in press). Nonetheless, as a means to compare existing theories of learning it has been useful.

practice?“ Rejecting the analytic philosophical distinction between persons and things, this questions presupposes that social becoming is fundamental to all other social processes (Bernstein 1971). Any way you look at it, subject-world relations are at the crux of differentiation of one theory of learning from another.

The *telos* of tailors apprenticeship in Liberia was not learning to sew; not moving towards separation from everyday life into specialization of production skills or special generalization of tailoring knowledge. Instead, the *telos* might be described as becoming a respected, practicing participant among other tailors; becoming so embued with the practice that masters become part of the everyday life of the Alley for other participants and others in turn become part of their practice. This might even be a reasonable definition of what it means to construct ‘identities in practice’. It seems that the tailors, as subjects, and the world with which they were engaged, mutually constituted each other. That is, of course, the subject-world relation implied in a social ontological, historically situated, perspective on learning:

Learning mechanisms: Rather than particular tools and techniques for learning as such, there are ways of becoming a participant, ways of participating, and ways in which participants and practices change. In any event, the learning of specific ways of participating differs in particular situated practices. The term „learning mechanism“ diminishes in importance, in fact it may fall out altogether, as ‘mechanisms’ disappear into practice. Mainly, people are becoming kinds of persons.

The third question that we explored was what would happen if we took the collective social nature of our existence so seriously that we put it first; so that participating with others in practice becomes the fundamental project subjects engage in, crafting identities of participation is a *social* process, and becoming more knowledgeably skilled is also an aspect of participation in social practice. By such reasoning, who you are becoming, as you engage in the everyday doing of social life, shapes crucially and fundamentally what you „know.“ „What you know“ may be better thought of as doing rather than having something - „knowing“ rather than acquiring or accumulating knowledge or information. Also, „knowing“ may turn out to be a complex relation involving at one and the same time communities of practice, participation in practice and the generation of identities in becoming part of ongoing practice.

Two Emerging Issues: First: Learning as Participation

The apprenticeship research forced me to grapple with the particularity of different social arrangements of which learning was a part. It seemed important to seek in social theory, then, as well as in psychology, theoretical perspectives on learning. I turned to social practice theory, most recently to the work of several theorists with a critical, relational, ap-

proach to social practice, among them notably Pierre Bourdieu.⁵ To my surprise, what I found was a profound silence about the nature of learning, in work that in many ways demanded it.

For instance: He focuses attention on the body, on embodiment of cultural means of knowing and perceiving, an obvious point at which learning is at issue. Yet for him embodiment is a matter of internalization, and the result of transmission, reinforcement and conditioning. He is well known for his theory of education - of the transmission of cultural knowledge as symbolic violence, of educational systems designed to get students to eliminate themselves from higher levels. But what is learned, and how is not addressed. People „acquire“ cultural capital. But how? They acquire most basically the habitus they share with others of their social class. How? „In the family,“ he says, but the family is a black box in his work, the processes by which children are inculcated with their class habitus is not discussed. The process appears to be unproblematic, and generates homogeneity and continuity across generations. It is notable in his work that almost always when he arrives at a point where change is at issue, he insists that whatever subjects do leads to the reproduction rather than the transformation of their social world.

Pierre Bourdieu's is an odd theory of practice, for it is a kind of mass practice, in which there are individuals who each have incorporated a variant of their social class habitus. Bourdieu's are social subjects, engaged in social action, in the plural, but they are not engaged first and foremost with each other. The most concentrated relations that involve individuals are with institutions - there are not people engaged in substantive varied ways from different social locations with each other. So practice is not a matter of participation (he rejects this) but of adjustment to institutionally structured possibilities for individual action in the world. He does not have learning in his theory because he has nowhere to locate it except in the individual - since there are only individuals and groups/classes but no interacting participants. So there is only conditioning of dispositions, and intentionless action pre-adapted to existing social conditions. Without a commitment to relations of participation as a basic unit of social analysis, in other words, it seems impossible to conceive of learning as a social, relational process.

It is worth paying attention to what Bourdieu does instead - for it is characteristic much more broadly in social theory, research on education and elsewhere in the social sciences: Every time it would be reasonable to address learning directly Bourdieu either switches to discussing educational institutions, or shifts his focus to teaching („inculcation“) rather than learning, or he relegates learning to an individual, ahistorical,

⁵ This discussion of Bourdieu's work is based principally on *The Logic of Practice* (1990), *Distinction* (1984), and Bourdieu and Passeron, *Reproduction in Education, Society and Culture* (1977).

mental-process psychology that is inconsistent with the rest of his theoretical position.

It is considerations such as these that confirm for me the importance of taking learning to be a matter of changing participation in ongoing, changing social practice.

Second: Dilemmas of Reification or Erasure

But this interesting and useful conclusion quickly leads to other perplexing questions. For instance, to claim that learning is a matter of changing participation in changing practice in communities of practice could easily be read as a claim that learning is *an aspect* of all activity in the world, not a separate kind of action or a way of participating in its own right. „Changing participation in changing social practice“ is a very broad and general characterization, whether of social practice as a whole, *or* of learning. And unfortunately, if you dissolve social practice into learning so that it is all learning, or all learning into social practice so it is all practice, then you lose any specific meaning for „learning.“ And that seems an unacceptable loss.

There is an interesting line of argument that suggests a way out of these dilemmas: It involves a commitment to both a larger, and multiply layered scope to what we think of as learning. Etienne Wenger, Ole Dreier and I recently discovered that we were each talking about learning in terms of *trajectories* of participation (Wenger in press, Dreier in preparation, Lave in preparation). This seems an important idea to pursue. It singles out certain kinds of changing participation: the notion of movement in a direction, of the possibilities for going deeper, becoming more of something, doing things differently in ways that gradually change the ways you are objectively, the way you are understood by others, and the terms in which you understand yourself to be a socially located social subject. Trajectories are made and made possible in ongoing relations of participation in practice. Go back to the tailors, (1) who were engaged in more and more skilled tailoring, (2) who were following the garment inventory into a concrete engagement with social hierarchy in Liberian society, and (3) who were coming to be part of the practice of tailoring through their changing careers, differently located with respect to seniority and mastery.

Trajectories are around us in concrete abundance, of persons whose ways of participating in various communities of practice are different, and different from each others in ways that point to paths for moving in their directions. Social institutions arrange trajectories or channels for moving through them - I think of Klaus Nielson's research (in preparation) on apprenticeship/learning in the Aarhus Academy of Music. This school takes in promising music students and turns out concert performing musicians and children's music teachers. There are sheer relations of life stages, age, aging, and relations of seniority which lend trajec-

ry-like meaning to differences in participation. That is, trajectories may be initiated as projects by and for participants. At the same time, trajectories are necessarily part of the substance of music students' participation in becoming musicians, concert and performance. There are tracks through the Music Academy, differentiated faculties, different permeability of one track to the other, different relations among students, different ways of participating in short. These trajectories are conditions of possibility for changing participation in many different ways; they are part of all changing communities of practice. But learning is possible only where possibilities for moving in trajectories with respect to existing practice exist in local practices for given participants. Clearly they are located in relations of participation, not in individuals, and not in institutional structures as such.

Trajectories of participation involve movement across space, place and communities of practice: I've engaged with Ole Dreier in a long term discussion of two parallel kinds of practices, both of which involve multiple contexts, which are almost never investigated as such: schooling on the one hand; psychotherapy on the other. Classrooms and therapy sessions are specialized contexts where what is accomplished in them is intended to affect the rest of the lives of pupils or clients. Research has concentrated on what goes on in those specialized settings, as if it were self-contained. But these are situations in which (quoting Dreier)

we often participate in a particular context mainly for reasons that are aimed at realizing goals and interests which primarily originate in and „belong“ to another context. In so doing we make use of particular connections that exist between these contexts, or that we and others create and extend, and that make it possible to pursue goals and interests in one context by taking part in another in a particular way...Human action has a potential and varying cross-contextual scope,...or reach. [1994: 12)

The point is that practices such as that of psychotherapy or schooling are aimed at transforming participation in other settings than the therapy sessions or classroom lessons; to understand them we must investigate ongoing practice in both, and how each is in part created in the other. This implies a genre of ethnographic research studies of learning.

Osterlund (1996) combines and extends Dreier's theoretical work (e.g., 1993, 1994), and that in Lave & Wenger (1991): The Xerox company has a theory of learning behind their training programs not noticeably different from more formal versions of cognitive theory; it involves a whole apparatus intended to fill them full of information about machines and procedures, and prescriptions for selling intended to guide and control saleswork and salespersons. But the salespersons report that all this elaborate formal preparation is not helpful for learning how to do the work. Work is never first or only about being knowledgeable about

machine characteristics, or formulas for stepping through a sales procedure. Trajectories of learning to sell copiers are crucially about establishing extended social relations, building them, and gradually becoming able to direct (somewhat) action among people in multiple places, at a distance, that concerns the work of selling copiers. Osterlund makes it clear that it is profoundly characteristic of sales work that it involves multiple practices and continual movement among them. Salespeople mediate between the companies they sell machines to, their own company, and not just that but many subdivisions of each. The salespersons for Xerox learn in practice which always involves client companies, the technical support division of Xerox, Xerox management, the financial division, and so on. Just as in psychotherapy or schooling what happens in one practice is part of practices elsewhere as well. In summing up, Osterlund (1996 Chapter 8) argues that newcomers learn most immediately how to make use of existing infrastructures in their social space...But to realize interests in one context they make use of particular cross-contextual connections between contexts, some institutionalized...others formed as they pursue their goals, make relationships with clients. Second, newcomers develop an ability to establish connections and disconnections in and among contexts of action in which they are not a member or only a very peripheral participant. And finally, an integral part of newcomers' learning to direct and adjust their practice and be knowledgeable in specific contexts involves their adaptation and elaboration of a generalized standpoint which makes them capable of mediating their overall participation across contexts.

Conclusions

The two previous sections have delineated questions arising in recent research: Our ability to conceive of learning as social process rests on an understanding of social life as a matter not only of structure and immediate lived experience, but further of partial participation with others in ongoing social practice. Is learning, understood as changing participation in changing practice, best viewed as a special process separate from, perhaps prior to, participation in practice? Or is changing participation in changing practice best seen as simply a facet of all social practice? The first approach requires that we reify learning, turning it into an activity which, if in process, precludes other activities. One may learn or one may do. It further creates fixed relations in time between learning and other kinds of activity. One may learn, then one may do - in that order. The second approach replaces a concept of learning with a much broader conception of learning-as-social-practice. This seems like progress. But it also claims that learning is ubiquitous. This too seems implausible. In fact, I do not accept either alternative: Conceived as changing trajectories of participation involved in multiple practices, learning is neither to be reified or erased: When trajectories materialize they do

so as part of ongoing practice, not as something separate from it. The production of practice is always part of practice; the telos of learning in practice is produced in and is part of practice. On the other hand: It is not the case that learning is part of *all* ongoing social practice. As I understand Wenger's point, it requires felt, potential trajectories for participants to engage in participating in broad-scope transformative practice. This is sometimes, but not always, possible.

Together these conclusions suggest several recommendations for ways of addressing new research: if it is part of changing ongoing practice, research on learning becomes an ethnographic project. Trajectories in space suggest a project whose focus is not captured and restricted by a single setting. In turn this suggests that we seek out subjects for study that make movement across practices material and salient to the practice in question. Studies of minutes-worth of „knowledge acquisition“ or even self-contained sessions of work, therapy, or instruction don't begin to address the phenomenon of learning proposed here: It seems important to focus on transformational projects of a scope that can be expected to engage participants in changing ways of being and changing understandings of who they are, and in what they are engaged.

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