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Developing Understanding of the Idea of Communities of Learners

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The idea of a community of learners is based on the premise that learning occurs as people participate in shared endeavors with others, with all playing active but often asymmetrical roles in sociocultural activity. This contrasts with models of learning that are based on one-sided notions of learning—either that it occurs through transmission of knowledge from experts or acquisition of knowledge by novices, with the learner or the others (respectively) in a passive role. In this paper, I develop the distinction between the community of learners and one-sided approaches from the perspective of a theory of learning as participation, and use two lines of research to illustrate the transitions in perspective necessary to understand the idea of communities of learners. One line of research examines differing models of teaching and learning employed by caregivers and toddlers from Guatemalan Mayan and middle-class European-American families; the other line of research involves a study of how middle-class parents make a transition from their own schooling background to participate in instruction in a public US elementary school.

This paper examines the shift in perspective that often seems to be necessary for people to come to understand a model of teaching and learning that is different from those of the cultural and academic community in which they were raised. The model in question is that of a community of learners. Many middle-class US adults have "grown up" with models of how people learn that are based on ideas of learners acquiring or experts transmitting pieces of knowledge, and they often seem to have difficulty understanding a participation perspective like that embodied in the idea of a community of learners.

Along with many colleagues who contribute to this journal, I have been deeply involved in trying to articulate a perspective on human development that takes as a central premise the idea that learning and development occur as people participate in the sociocultural activities of their community. Although many sociocultural theorists agree on that general framework, I discern variations in how learning is conceived among sociocultural scholars as well as between them and scholars and practitioners working from different theoretical perspectives. I take the perspective that learning is a process of *transformation of participation* itself, arguing that how people develop is a function of their transforming roles and understanding in the activities in which they participate (Rogoff, in press; Rogoff, Baker-Sennett, Laccasa, & Goldsmith, in press; Rogoff, Baker-Sennett, & Manusov, in press).

A paradigm shift seems to underlie conceiving of development as *transformation of participation* rather than viewing development as either a product of *transmission of knowledge* from others or of *acquisition or discovery of knowledge* by oneself. My purpose here is to draw attention to the notions underlying transmission, acquisition, and participation perspectives on development and learning by

examining three models of teaching and learning that derive from how different participants' responsibilities for learning are seen: a community of learners and two one-sided models.

The two one-sided instructional models are often cast as opposite extremes of a pendulum swing between control and freedom. These are "adult-run" instruction, based on theoretical notions of learning as a product of transmission, and "children-run" instruction, based on theoretical notions of learning as a product of acquisition. The idea of this pendulum swing can be seen frequently in ongoing discussions among researchers focusing on freedom and control in classrooms and families as well as on issues of restructuring schools and evaluating child-centered versus didactic approaches (see Eccles, Buchanan, Flanagan, Faligini, Miedley, & Yee, 1991; Giacomia & Hedges, 1982; Greene, 1986; Stipek, in press).

The third instructional model supersedes the pendulum entirely, in the community-of-learners model based on theoretical notions of learning as a process of transformation of participation in which responsibility and autonomy are both desired (Newman, Griffin, & Cole, 1989; Rogoff, 1990; Tharp & Gallimore, 1988; Wells, Chang, & Maher, 1990). The community of learners model is not a compromise or a "balance" of control and freedom from the adult-run and children-run models; however, it is difficult for people unfamiliar with the concept to avoid assimilating it to the adult-run/children-run dichotomy.

I argue that what is learned differs in the three models, not that learning occurs best in one model. This argument is based on a theory of participation, in which learning is seen as a function of ongoing transformation of roles and understanding in the socio-cultural activities in which one participates. Learning is involved in all three instructional approaches: *adult-run* instruction deriving from assumptions that learning occurs as a product of transmission from experts to novices; *children-run* instruction based on assumptions that learning is a product of discovery of knowledge by oneself or with peers; and a *community of learners* based on assumptions that learning is a process of transforming participation in shared socio-cultural endeavors.

However, I argue that participation in different instructional models involves different relations of the learner to the information and its uses in socio-cultural activities. Thus I use the transformations of participation perspective to analyze learning not only in a community-of-learners model but also in adult-run and children-run instructional models although their conceptual roots involve alternative notions of learning as being the product of transmission or acquisition, respectively.

The difference between the three instructional models is not a matter of whether one involves learning and the others do not, but a matter of what practices are learned in situations structured according to the different models. Instructional approaches based on transmission, acquisition, and participation theories all stimulate learning of the subject matter of schooling, but through the varying roles played by students in the process of instruction they also learn different aspects of the uses of the information.

For example, in education based on a transmission theory (adult-run instruction), students learn information to be able to demonstrate that it has been encoded and retained, in response to tests evaluating the transmission piece by piece. In education based on an acquisition theory (children-run instruction), students learn as they explore in idiosyncratic ways that are not necessarily connected to the uses to which the information is historically or currently put in the adult world. In education based

on a participation theory (community of learners instruction), students learn the information as they collaborate with other children and with adults in carrying out activities with purposes connected explicitly with the history and current practices of the community. In all three instructional approaches, students learn the subject matter; however, in each, they learn a different relation to the subject matter and to the community in which the information is regarded as important, through their varying participation in the process of learning.

Following further discussion of the three models, this paper presents two lines of research to illustrate the contrast between the models and the difficulty that newcomers experience in coming to understand the idea of a community of learners. The first line of research compares models of teaching and learning observed in middle-class European-American families and Guatemalan Mayan families. The second describes difficulties faced by European-American adults when their families join an elementary school with a community-of-learners philosophy contrasting with the adult-run model that was usually employed in their own schooling. Finally, the paper discusses how all three models can be viewed from the perspective of a theory of participation.

Pendulum Swing Between One-Sided (Adult-Run and Children-Run) Models

Both the adult-run and children-run models are one-sided versions of how learning occurs—either the learner or the teacher is seen as active, and the other is seen as passive. In the adult-run instructional model, which prevails in US elementary schools (Cuban, 1984) and in US middle-class parenting (Greene, 1986), learning is viewed as a product of teaching or of adults' provision of information. Adults see themselves as responsible for filling children up with knowledge, as if children are receptacles and knowledge is a product. It has been variously called a receptacle model of learning or an assembly factory or banking model of learning, because the children are seen as receivers of a body of knowledge but not active participants in learning. The children have little role except to be receptive, as if they could just open a little bottle cap to let adults pour the knowledge in. In this adult-run model, adults have to be concerned with how to package the knowledge and how to motivate the children to make themselves receptive.

One issue that arises from an adult-run model of instruction is the need to engage children conceptually, which is sometimes difficult to achieve in a transmission model of instruction. If instruction is treated in a factory model, the little empty vessels on the assembly line may get through their math pages or their science text, but they often do not understand the concepts (Brown & Campione, 1990; Brown, Collins, & Duguid, 1989). They need to be involved in exploring the materials and the ideas, engaged rather than simply receiving. Some of them are very good at doing math by formula so their teacher may not even know that they do not understand. Their teachers often have so much "material" to cover and a need to prepare children for tests involving only superficial knowledge, so their best intentions fall prey to the press of the need to fill the children up with knowledge. Silberman (1970) explains this notion:

These tendencies are almost built into the way most classrooms operate. "In training a child to activity of thought," Alfred North Whitehead wrote, "above all things we must beware of what I will call 'inert ideas'—that is to say, ideas that are merely received into the mind without being utilized, or tested, or thrown into fresh combinations." "In most classrooms, however, the teacher sits or stands at the front of the room, dispensing 'inert ideas' to his passive students, as if they were so many empty vessels to be filled (p. 148).

In reaction to this adult-run model, various scholars and practitioners have proposed switching to a different—but still one-sided—model that involves a more active role for the children as learners. This is the pendulum swing to children-run instruction, in which children are seen as constructors of knowledge and adult involvement is seen as a potential impediment to learning. The idea is that if you could leave them alone among themselves, they would discover all the things that humans have discovered over the centuries (inventing how to read and write and other technologies) and go beyond their community's current understandings. In a children-run model, adults may set up learning environments for the children but should otherwise avoid influencing children's "natural" course of learning. The challenge of this model is to get the "natural" course of learning to somehow correspond with the skills and standards necessary to function in the community. Dewey (1938) critiqued the children-run model as he attempted to distinguish his views on education and experience from those employed in some "new" schools that simply reversed the control structure of traditional education:

The mature person, to put it in moral terms, has no right to withhold from the young on given occasions whatever capacity for sympathetic understanding his own experience has given him. No sooner, however, are such things said than there is a tendency to react to the other extreme and take what has been said as a plea for some sort of disguised imposition from outside. . . .

The adult can exercise the wisdom his own wider experience gives him without imposing a merely external control (pp. 32-33).

I think that observation of what goes on in some families and some schools would disclose that some parents and some teachers are acting upon the idea of *subordinating* objective conditions (the place and function of the teacher, of books, of apparatus and equipment, of everything which represents the products of the more mature experience of elders) to internal ones (the immediate inclinations and feelings of the young). In that case, it is assumed not only that the latter are primary, which in one sense they are, but that just as they temporarily exist they fix the whole educational process (pp. 36-37).

The idea that adult-run and children-run instructional models are opposite ends of a pendulum swing suggests that the ideal is some sort of balance between the two extremes. Silberman (1970) referred explicitly to a pendulum swing between mindless informal child-centered education and rigid formalism in his account that is, in many other ways, consistent with the views expressed here:

Finding the right balance is never easy; there will always be a certain tension between two groups of educational objectives—those concerned with individual growth and fulfillment, and those concerned with the transmission of specific skills, intellectual disciplines, and bodies of knowledge—and finding the "right" balance is neither easy nor obvious (p. 322).

Freedom and control are thus conceived as opposites on a single dimension (for alternative conceptualizations see Engeström, 1993; Kohn, 1993; Mosier & Rogoff, 1994 ms). From the perspective of a participation theory, however, this one-dimensional view is only one way to consider the issues. The opposing alternatives in the one-dimensional perspective (adult-run and children-run instructional models) are similar in relegating either the teachers or the learners to a passive or dominated role.

Community-of-Learners Model

The community-of-learners model is not a balance or "optimal blend" of the two one-sided approaches, but is instead a distinct instructional model based on a different philosophy. One type of

evidence for its distinctness is the difficulty experienced by individuals who attempt to see its structure from the perspective of transmission or acquisition theories of learning and instruction (or adult-run or children-run instructional models), as this article will discuss.

In a community of learners, both mature members of the community and less mature members are conceived as active; no role has all the responsibility for knowing or directing, and no role is by definition passive. Children and adults together are active in structuring shared endeavors, with adults responsible for guiding the overall process and children learning to participate in the management of their own learning and involvement (Brown & Campione, 1990; Dewey, 1916; Newman, Griffin, & Cole, 1989; Silberman, 1970; Tharp & Gallimore, 1988; Wells, Chang, & Maher, 1990). Children coordinate with other children and with adults, contributing to the direction of the endeavor, with overall orientation and leadership provided by adults but with some leadership provided at times by children. As Dewey (1938) put it,

Education is essentially a social process. This quality is realized in the degree in which individuals form a community group. . . . As the most mature member of the group, [the teacher] has a peculiar responsibility for the conduct of the interactions and intercommunications which are the very life of the group as a community. . . . The tendency to exclude the teacher from a positive and leading share in the direction of the activities of the community of which he is a member is another instance of reaction from one extreme to another. . . . When education is based upon experience and educative experience is seen to be a social process. . . . the teacher loses the position of external boss or dictator but takes on that of leader of group activities (pp. 65-66).

A community of learners includes asymmetry of roles. Particular roles vary from one situation or one community of learners to another. In differing communities, the particular asymmetries of relationships (such as between adults and children) may differ while still staying within the framework of a community of learners. In a specific activity, participants' roles are seldom "equal"—they may be complementary or with some leading and others supporting or actively observing, and may involve disagreements about who is responsible for what aspect of the endeavor.²

Community-of-learners approaches occur in informal learning in many communities where children learn through participation with adults in community activities, and in some apprenticeships where novices learn through the opportunity to observe and work with others varying in skills and roles in learning a craft as they contribute to the work of the shop (Goody, 1989; Lave & Wenger, 1991; Rogoff, 1990; Rogoff, Misyry, Gönül, & Mosier, 1993). The apprenticeship metaphor from craft training has been applied to learning how to speak, read, write, and use mathematical principles (Brown & Campione, 1990; Bruner, 1983; Dewey, 1916; John-Steiner, 1985), and serves as an inspiration for some of the efforts to organize instruction in school in ways other than the adult-run model that prevails.³

There are undoubtedly important differences across communities of learners that occur as children participate in community activities and those that occur in schools. Among the most important must be that a community of learners in a classroom is a more self-conscious effort by adults to produce and manage learning by the children and is less focused on carrying on productive community activities than are the relations between adults and children in communities in which children's learning proceeds as they participate in ongoing mature community activities. In informal learning situations, children participate in inherently valuable community activities with some support from adults; in schools they are segregated from the mature activities of the community—the goal of

the few adults present is to constitute a community of learners around the children's interests in ways that will involve them in meaningful activities connecting with the skills and values of adulthood.

Schools structured as a community of learners contrast with the traditional adult-run organization of schools in their attempt to structure the activities in which the children are involved in ways that interest the children and allow them to participate with understanding of the purpose of the activity. In a community of learners, the children do not just carry out pieces of an activity without connecting them to their purpose in the overall activity (Brown & Campione, 1990). The instructional discourse in a community-of-learners classroom is conversational rather than using the traditional question-response-evaluation format (Mehan, 1979; Tharp & Gallimore, 1988). The adults' roles are supportive and provide leadership, rather than controlling all interactions in the classroom. In a community-of-learners classroom, organization changes from dyadic relationships between teachers responsible for filling students up with knowledge and students who are supposed to be willing recipients to complex group relations among class members who learn to take responsibility for their contribution to their own learning and to the group's functioning. Instead of one individual trying to control and address 30 students at once, it is a community working together with all serving as resources to the others, with varying roles according to their understanding of the activity at hand and differing responsibilities in the system.

A community-of-learners model goes beyond the idea of piecemeal incorporation of innovative techniques into an otherwise inconsistent fabric of the instructional model. An example is provided by adoption of cooperative learning techniques in an isolated fashion, where often only small portions of the day in school are allocated to group projects, and the rest of the day follows the adult-run model with all communication and decisions happening through the teacher. US education has begun to emphasize the importance of children working in small "cooperative learning" teams, and the necessity of coordinating with others is increasingly noted in observations of the changing nature of adult work (Carnegie Forum on Education and the Economy, 1986; Human Capital Initiative, 1993; Sharan, 1990). Children's difficulties with shared decision-making (Patterson & Roberts, 1982; Peterson, Wilkinson, Spinelli, & Swing, 1982) may be because in traditional classrooms, children are not expected to be and are not supported as partners in the sort of dialogue required for cooperative problem-solving (Forman & McPhail, 1993). However, peers can solve problems cooperatively and tutor collaboratively when the social structure of the classroom supports such interactive patterns (Gazden, Cox, Dickinson, Steinberg, & Stone, 1979; Cooper, Marquis, & Edward, 1986; Damon, 1984; Mamusov, Bell, & Rogoff, 1994).

Commonly, cooperative learning interventions are brief and insulated from the overall structure of the classroom. Most of the day, only one child speaks at a time, and only to the teacher. The exceptional times, when children tutor each other or work in cooperative groups, do not correspond to a community of learners which is itself coherently structured as a cooperative system. There are sometimes clashes that make the contrast quite clear, as Deering (1991, 1994) articulated in his descriptions of one teacher who emphasized competition and individual achievement, and tried to coerce students into cooperating. Changing practices in a piecemeal fashion, such as adding a cooperative learning session to a competitive classroom structure, does not amount to making a transition in the integrated and coherent model of learning (Cresmin, 1962; Deering, 1991, 1994).

Because of the prevalence of viewing one-sided approaches as the only alternatives, it is often difficult for newcomers to a community of learners to see and understand the structure of the system.

The shift from one-sided (either adult-run or children-run) approaches requires a paradigm shift like that of learning how to function in another culture.

In the following sections, I present evidence of the deep and coherent differences between models using two different lines of research. Both involve observations of communities of learners. By juxtaposing two different communities of learners, I want to draw attention to their underlying similarities; however, I do not argue that they are identical. As mentioned above, they differ deeply in whether the learners' roles are actually productive and in whether the adults' roles are focused on instruction. In addition, they stem from clearly different historical circumstances.

In the first line of research, I describe evidence that an adult-run instructional model was used in problem-solving interactions among caregivers and toddlers in a community of middle-class European-American families, contrasting with a community-of-learners model used in a community of Mayan families. Researchers from middle-class European-American backgrounds have difficulty seeing the structure of the Mayan community-of-learners model without coming to understand the assumptions of their own perspective.

In the second line of research, I describe how newcomers in an innovative public elementary school in a middle-class US city develop an understanding of the philosophy of the school. New teachers and parents in this school are often "raised" in an adult-run model of teaching and learning that makes for culture shock as they try to align themselves with the philosophy and practices of a school that functions as a community of learners. Without an understanding of the community-of-learners model, it is difficult for newcomers to understand the practices of the school.

Models of Teaching and Learning in Families from Differing Communities

Observations of models of learning in a variety of non-Western communities suggest that a model like that of a community of learners is common in family or early schooling interactions in some cultural communities (notably Native North and Central American and Japanese; see Clancy, 1986; Hendry, 1986; Lamphere, 1977). Rogoff, Mistry, Goncu, and Mosier (1993) found that in a Mayan community in the Highlands of Guatemala, young children learned through functioning in shared activity as members of the family, with the sensitive support of adults and other group members. This contrasted with the model observed in families in a middle-class European-American US community, where young children's learning was treated as a product of adult instruction, and children were less likely to attend to and participate in ongoing group activity but instead acted dyadically with an adult partner who directed rather than supported the children's efforts.

Rogoff et al.'s (1993) observations occurred in the context of a videotaped home visit with families, which included an interview about daily routines and child-rearing practices as well as problem-solving interactions between the toddlers and caregivers in operating interesting novel objects and getting toddler arms through shirt sleeves.

In the problem-solving activities, the Mayan toddlers and their caregivers contributed to the direction of the activity, with mutuality. The toddlers were very responsible for observing and provided leadership in problem-solving, while the caregivers oriented the children to the activity, made suggestions and alertly monitored the toddlers' activities, and provided sensitive assistance when the toddlers needed help. The caregivers did not direct the toddlers' activities by providing adult-run lessons or insisting on a certain way that an activity be done. Rather, they provided orientation

and suggestions and generally maintained themselves in readiness to assist the child's direction of activity, while they simultaneously engaged with the group (not exclusively with the child). The toddlers observed and participated in the activities of the group even if they were also engaged in a separate activity, with embeddedness in group activities, rather than simply solo or dyadic engagements.

In contrast, caregivers in the middle-class European-American community (Salt Lake) often took charge of problem-solving in ways that can be regarded as adult-run. They often directed the toddlers' activities by trying to motivate the child's involvement and manage the toddler's attention and by organizing didactic lessons (e.g., on vocabulary) and sometimes insisting on a certain way that an activity be done; they also less often maintained themselves in readiness to assist the child's direction of activity than did the Mayan caregivers. The caregivers' efforts to organize the toddlers' problem solving occurred only when the toddler was the main focus of adult attention; if the caregiver attended to adult activities, her efforts with the toddler usually ceased. The engagement of toddlers from Salt Lake usually involved solo or dyadic engagements with an adult rather than shared activity with a group, even though a group was always present in these observations.

Without an understanding of a community-of-learners model, it is difficult for middle-class European-American researchers to understand the learning and interactions of the Mayan toddlers and caregivers. On viewing videotaped interactions of the Mayan interactions, they often cannot see the shared involvement of both toddler and caregiver and the supportive role of the Mayan caregivers, because they focus on the caregivers' simultaneous involvement with other ongoing activities. Because they see the attention and fluency of conversation between a mother and another adult, for example, they assume that the mother is doing nothing with the child. Only if prompted to ignore the adult conversation and focus on the mother's involvement with the child do they see that she is simultaneously communicating with and assisting the child in a fluent way.

In interpreting videotapes, middle-class European-American observers have difficulty understanding the different model of children's learning in families in the Mayan community because they, like the middle-class European-American caregivers, focus on one activity at a time and think of organizing the child's learning through instruction as the format for caregiver-child interaction. In my experience, European-American coders often require extensive training to be able to see meaning in richly structured group activities and in simultaneous and subtle communication in several modalities; coders of other backgrounds (e.g., Navajo, Mayan, Japanese-American, East Indian) seem to see the group-oriented attention and communication as common sense, without training.

The difficulty for middle-class European-American researchers in seeing the model of learning used in the Mayan families may result from the model of learning prevalent in their own communities, where children are usually segregated from observing and participating in community events and their learning takes place in specialized adult-run settings such as lessons created by adults for children to learn adult-promoted skills (Morelli, Rogoff, & Angelillo, 1992; Rogoff, 1990). In contrast, in the Mayan community, children learn through participation in mature activities of the community; they are not segregated from observing and participating in community events and adults seldom create specialized learning situations for children such as lessons or adult-child play (Morelli, Rogoff, & Angelillo, 1992; Rogoff, 1990). Rather, Mayan children learn through engagement with others in a system of ongoing guidance and support in the everyday mature activities of their community. They

are involved as participants rather than the targets of specialized instruction segregated from ongoing activities.

When the Mayan children reach school, they meet a different philosophy of learning, in which teachers utilize the "recitation" script that has been common in European and US education for decades. The teachers focus on dictating to the children and quizzing them on what they have learned, with teacher as one side of the adult-run communication dyad and students (en masse or singly) as the other side. This encounter between different models is contributing to some changes in caregivers' practices. Mothers of the Mayan toddlers studied by Rogoff et al. (1993) who had spent more than six years in school spoke to their toddlers in ways consistent with the adult-run model of schooling; they were more likely to try to motivate the toddlers' involvement with mock excitement and to give lessons. However, their alert involvement with the child's direction of the activity and readiness to support the toddlers' efforts did not differ from that of the less-schooled Mayan mothers.

When middle-class European-American children reach school, they ordinarily encounter a model of learning that resembles that used in their homes, with teachers giving lessons and quizzing children's knowledge, and discouraging children from learning from each other (Melhan, 1979; Tharp & Gallimore, 1988; Wells, 1992). However, these children may have difficulty functioning as a member of a community of learners. When placed in a situation in which teams of children were asked to cooperate to assist a younger child in learning a game, middle-class European-American children have been observed to have difficulty coordinating their efforts, compared with Navajo children whose cultural model of teaching and learning is consistent with a community-of-learners model (Ellis & Gauvain, 1992). The Anglo children were inattentive when they were not active interlocutors, and were less likely than their Navajo counterparts to build on each others' contributions; the Anglo children seemed to be limited in their coordination to taking turns or dividing the task rather than coordinating in a higher-order group dynamic.

Thus it appears that families in varying cultural communities engage differentially in practices that can be associated with the community of learners or the adult-run philosophies, and that these may relate to children's opportunities to observe and participate in mature activities versus being organized by adults in specialized teaching situations such as formal schooling.

The community-of-learners model observed in families in the Mayan community is not a self-conscious model of learning; learning is assumed to occur as children participate in the everyday mature activities of their community, and adults report that they do not "teach" the children; that is what teachers do in school. Nonetheless, the Mayan adults' and toddlers' involvements with each other in learning situations reveals a shared and supportive effort to assist the toddlers' efforts to learn in the context of group activity. Learning is treated as a collaborative activity, natural to engagement in shared endeavors rather than a product of specialized adult-run settings such as lessons.

Schooling is by nature a specialized setting devised by adults which focuses self-consciously on learning, and thus differs importantly from a community of learners in which children learn in an unself-conscious way by being involved in the mature activities of the group with the support of their elders. Nonetheless, there exist some (but not numerous) US schools which function as communities of learners. There is a growing interest in using the community-of-learners model to restructure other schools to create an environment in which children engage with adults and others in purposeful

activities. In the next section, I describe how adults who were not "raised" in a community-of-learners model struggle to transform their philosophy of learning to participate in such a model.

Newcomers Moving from Adult-Run to Community-of-Learners Models in School

Attempts to use the community-of-learners model in US schools meet with unique challenges because most US teachers and parents have been "brought up" in the adult-run model of learning, which conflicts with the philosophy and practices of a community of learners. We are currently studying how children, parents, teachers, and an educational institution transform in the process of developing and sustaining a public school that is structured as a community of learners (Rogoff, Matusov, & White, in preparation). Here I will use preliminary data from our study to describe the paradigm shift involved as new members become a part of the system.³

The school program (which we will call "the OC") was started 17 years ago by a group of parents and teachers who wanted to form a public elementary school with an educational philosophy emphasizing education of the whole child, involvement of parents in the curriculum, and support for children's development of motivation to learn and responsibility for their choice of activities. The program continues to be run cooperatively by parents and teachers and sometimes administrators, with parents (called "co-ops") spending three hours per week per child in the classroom contributing to instruction, curriculum decisions, and classroom management.

My statements are based on participating in the program for 10 years as a co-ops while my children were in the school and 4 years as a researcher, recording ongoing classroom activities and discussions of philosophy and practices in teacher and parent meetings, studying program newsletters and documents available since the inception of the program, talking with participants about their understandings of philosophy and classroom practices, and surveying co-ops' reflections on their own development and OC philosophy and practices.

In this study, we examine the OC as a "culture," with a coherent system of practices integrated in a largely tacit underlying philosophy carried out in a community organized for children's education but serving many other functions as well for its members. The OC way involves children and adults collaborating in learning endeavors of interest to both children and adults, with the adults being responsible for guiding the process and children learning to participate in the management of their own learning. This philosophy is culturally distinct from that of most schools and from those that most of the adults in the OC have attended, in which learning is seen usually as the filling of children (as recipients) with knowledge, or occasionally, as independent discovery best facilitated by leaving learners to their own devices. The cultural aspect of the phenomenon is especially apparent as new parents try to fit in as co-ops contributing to the curriculum and to classroom management. The parents make developmental transitions amounting to a paradigm shift, from the perspective on learning in which they participated in their own schooling, to the philosophy involved in participating in a community of learners.

Parents' initial involvement in the OC often involves culture shock or at least confusion as they attempt to fit into a new value system and practices. Their efforts to implement the practices in the classroom are tentative and awkward as they puzzle out the philosophy through their own participation and observation of and discussion with others. New teachers face similar questions in their own career development and work with both children and parents in the classroom. For many new members of the community, coming to participate in this program requires a long period of being "legitimate

peripheral participants" (to use Lave & Wenger's term, 1991)—provided with some direct instruction but mainly with opportunities to observe and to participate.

They struggle to understand the new philosophy tying together specific practices of a community of learners. Their issues are based on coming to understand that the practices embody a distinct and coherent philosophy of learning rather than a pendulum swing between adult-run and children-run learning or simple adoption of a few new techniques.

At first, many new adults in the community see daily events as unstructured and chaotic. In describing similar school programs, Silberman (1970) provided an account of the initial impression:

Understandably, in view of all the sound and motion, the first impression may be one of chaos. In most schools, it is a false impression. "You always have to assess the nature of the noise," the headmistress of the first school the writer visited helpfully explained. "Is it just aimless chatter, or does it reflect purposeful activity?" And as the visitor becomes acclimated, it becomes clear that the activity usually is purposeful. . . . As the strangeness wears off, one becomes aware of many things. One becomes aware, for example, of the teacher's presence: in contrast to the first moments of wondering where she is, or whether she is even there at all, the visitor begins to see that the teacher is very much there and very much in charge. She seems always to be in motion, and always to be in contact with the children—talking, listening, watching, comforting, chiding, suggesting, encouraging. . . . One becomes aware, too, of the sense of structure (pp. 225-226).

Newcomers to the OC begin to see particular practices in isolation as routines and attempt to follow them, but without comprehending how they fit together. They often assume that the new practices are opposite to the adult-run model with which they are familiar, swinging to a children-run model and trying to implement new practices as simply the opposite of the old. Certain aspects of the community's functioning are difficult for newcomers to see until they have begun to really align themselves with the direction and philosophy of the program. Former OC teacher Pam Bradshaw (in press) points out that a central qualification for adults (and children) to participate skillfully in the program is willingness and readiness to "align" oneself with the direction in which the group is moving.

OC teacher Leslie Bartlett (in press) describes the "underlying structure" of the OC as being difficult to see, like the stereograms in which patience and appropriate alignment of the eyes eventually in seeing three-dimensional figures in what appeared to be simple two-dimensional random or repeating patterns. To see a hidden three-dimensional image, one must look beyond the details of the page, patiently attempting to see deeper. Learning to see the three-dimensional image serves as a metaphor for what it takes to see the community of learners philosophy; it takes patience and learning to see in a particular way which may conflict with one's usual habits of looking. It also requires personal involvement—a person cannot just see it when someone tells them that the three-dimensional image is the whole world, for instance. Other people may, however, contribute suggestions of particular strategies for looking as well as assurance that supports a person's confidence that there is something to be seen if one keeps trying, until the viewer catches the certain glimpse of the three-dimensional figure that convinces them that it is "there."

Bartlett describes stages of development for newcomers to the OC in terms of movement from seeing only chaos, to seeing small parts of the routine, to seeing the structure surrounding one's own activity, to seeing the structure of the program. The process occurs through the newcomer personally becoming a part of the structure, in widening fields of participation. Co-ops begin to carry out their

own activities with understanding; subsequently, some can lead others through a "tour" of the OC; some go on to be able to be responsible for the whole classroom or larger parts of the program. Bartlett describes how, as teacher, she removes herself from the classroom for short periods to give co-ops whom she regards as ready the opportunity to take this responsibility; she can tell upon return to the classroom how things have gone.

Such learning involves the whole program in a continual process of renewal and change within continuity, as new generations come to play the roles of newcomers and old-timers⁶ in the community, becoming part of the structure. As Bartlett points out, one is never "done" learning; she and other teachers report that their reason for remaining involved with this high-commitment program is that they continue to learn. In fact, one indicator of alignment with the philosophy of a community of learners in a school seems to be regarding oneself as a learner, continually. Adults who have a learning attitude find, as one co-op reported, "one of the things that's been nice for me has been having kids, first graders, come to me and say 'don't worry about this, I'm gonna show you how to do it!'" The learning can involve sports, computers, human relations, patterns in multiplication tables, and the processes of learning and teaching themselves.

Newcomers to the OC first begin to notice the morning's or the afternoon's routine: The whole class meets several times (in "circle") for planning activities and for whole-group instruction, but much of the day involves small groups of children working at an activity led by a co-op or the teacher. The children choose which activity they will engage in during the different activity times, from among some required activities that they can complete according to their own schedule and others that are optional. Newcomers easily notice some features of the sequence that do not require them to adjust their ratio with about three parents in addition to the teacher in the classroom; the families' commitment to education and involvement in the curriculum which provides enrichment from the expertise of each family; the blended grade-level classes, with most children staying with the same teacher for two years; and the respect for individual interests and rates of progress.

Newcomers also see but often have trouble understanding many OC practices that they frequently attribute to the "permissive" end of the pendulum swing, moving away from adult-run structure to children-run "lack" of structure, in the kind of "either-or thinking" referred to by Dewey (1938). Parents struggle especially with issues of how

- adults serve as leaders and facilitators rather than direct instructors,
- instruction emphasizes the process rather than just the products of learning,
- teaching builds on inherent interest in activities and responsibility for making choices,
- evaluation of student progress occurs through working with the child and observing, and,
- cooperative learning occurs throughout the whole program.

These features of the OC community of learners, elaborated below, are seen but often assimilated to the parents' preconceptions of the permissive, children-run alternative to their own adult-run schooling experiences. Only as they break free of the adult-run/children-run dichotomy in which one side or the other is active do newcomers begin to understand the community of learners philosophy underlying these practices.

Adults serve as leaders and facilitators for students and each other, not as authority figures. At first the teachers' leadership is not seen and newcomers think the teachers are simply permissive.

Newcomers wonder who is in charge, how the classroom is organized, whether it should be more organized or more structured with more teacher control, and so on.

Relatedly, newcomers worry that without such adult-run control that "academics" may not be happening, since they associate learning with being taught in a direct, controlling fashion. They often do not see the teachers' subtle ways of helping children make responsible choices or of monitoring the children's learning over the day. Some parents swing to the other extreme and argue that children should be left to their own creative freedom, not conceiving the possibility that children can make choices in the presence of guidance.

Emphasis is on the process of learning (rather than just finished products) in activity-based learning situations with meaningful purposes, with emphasis on conceptual thinking including both problem finding and problem solving, integration across curriculum areas, and planned flexibility of curriculum in order to build on student contributions. As former OC teachers Marilyn Osborne and Monica Solawetz (personal communication, July 1993) point out, often the process continues even after the completion of a product, as when a child reads about a topic of interest sparked by their research for a class report.

At first newcomers have trouble recognizing the process of learning without the more familiar format of texts, workbooks, tests and divisions of the curriculum into self-contained domains, and they expect rigidly preplanned instructional units. However, as teacher Carolyn Goodman Turkman (in press) points out, whole curricula can be built on students' curiosity or concerns about things happening around them if adults are prepared to be flexible, teaching to the moment. Adults and children participate in activities with shared interest, mutually, and a learning attitude, with leadership provided by adults (and sometimes by children) in initiating activities and helping the children manage the process so that instruction is embedded in children's inquiry.

Inherent interest in activities is fostered along with learning responsibility for one's choices. At first newcomers see this as an attitude of emphasizing play and fun at the expense of school WORK which is not supposed to be fun. However, with the explicit curriculum aim of children becoming responsible for managing their own learning, it is necessary for the motivation to involve the children in ways that are inherent to involvement in the activity (as opposed to coming from promises or threats of candy bars, grades, stars, or scoldings).

OC students' engagement in school activities is demonstrated by their interest in school. Their parents often report that the children try to insist on going to school even when they are sick, and are said when summer vacation comes. It is also illustrated by fifth and sixth graders' worries about how they will do in junior high when they begin to get homework; they do not notice that they have been doing homework all along. If they have a project at school, they read and prepare for it at home but having chosen their project, they are invested in it and it is not a homework assignment. (In addition, at the OC school and home are not bounded off from each other, so projects and involvements at school and home are not so distinct.)

Along with making choices it is necessary for children to learn responsibility for their own choices, with the support of the people around them helping them see when they have made effective choices or when they have wasted their time and run out of time for something that they would really have liked to accomplish. If, as OC teacher Donene Polson (in press) points out, adults control situations so children cannot make choices or "save" children from the consequences of their choices,

this removes an opportunity for the children's learning. For example, adults sometimes take over children's projects for them, or prepare what needs to be brought to school the next day, or provide quick answers when children would benefit from becoming responsible for their own activities and finding (and escaping from) dead ends in their path of thinking.

Ideally, in a community-of-learners approach, the consequences of children's choices are inherent to the activities. For example, when the program had an Invention Convention in each classroom, some of the children developed a quality project while others treated their project more casually. They could see the difference in people's interest in their projects when the other classrooms came to visit. The children who took the invention project more casually had a chance to think that the next time they had an opportunity to work on such a project, they would give themselves a little more time to work on it, plan ahead a little more so they could finish, or make the project so it was clearer to others. (And the adults in the classroom helped them to notice the consequences of their choices and to think through how they could handle a future occasion. In a community of learners, people assist each other in learning to be responsible, making choices and solving problems in ways that fit their own needs while coordinating with those of others and with group functioning.)

Evaluation of student progress occurs through working with the child and observing. Teachers, co-ops, and students attend to and reflect on children's progress and need for improvement in the context of children's learning activities; grades are avoided. This is often not understood as providing detailed information on learning until much later in a co-op's development. The emphasis is on children's own improvement, rather than on comparison of children with others. Daily involvement of adults in children's processes of learning, along with periodic reflection, provides opportunities for evaluation and planning for improvement and helps students treat each other as resources and collaborators rather than competitors.

For example, in helping a child write a report, an assisting adult is able to observe the extent to which the child needs help with formulating ideas, using resources to search for information, putting ideas in their own words, and understanding the mechanics of spelling and punctuation, in the process of providing instructional support in these areas. Such involvement of the adult also provides key information on the extent to which the child is learning to manage their own motivation to enter and sustain involvement in the particular activity, and to seek and provide help effectively.

In addition, students join with their teacher and parents in conferences that focus on students evaluating both their own progress and goals for the next months. The teacher assists the children individually in reflecting on which aspects of classroom functioning are easy and hard for them, and on which areas they feel they should focus for improvement. Most students become skilled in such self-evaluation with teachers' assistance, and their stated goals for the coming months serve as a resource in the students' decision-making in the classroom and in the adults' support of the children's daily activities. Some students for whom this self-monitoring and management is more of a challenge develop a more specific "contract" with the teacher and their parents to help them learn to manage their daily decision-making.

Cooperative learning occurs throughout the whole program with children working in collaboration with other children and adults throughout the day in ways that are intended to promote learning to lead and support group processes as well as to make use of others as resources. At first, newcomers may not see skills in contributing to interpersonal problem-solving and group processes as relevant to "academic" learning. The success in developing a classroom community, with helpful relations

among students, makes administering and lacking standardized tests difficult, as children have a hard time *not* sharing information with their classmates.

The children's learning of how to build on each others' ideas collaboratively is supported by a study that found that pairs of OC children were more likely to work together with consensus, building on each other's ideas collaboratively, and to assist each other collaboratively in out-of-class math and categorization tasks than were children from a neighboring traditional school that had less emphasis on collaboration (Mausov, Bell, & Rogoff, 1994). Interestingly, although the researcher attempted to avoid interaction with the children during the peer tasks, the OC children continually attempted to include the adult in their activity but the children from the traditional school did not. This is consistent with the fact that OC children are collaborative with adults as well as with children (rather than being adversaries of the adults or mere products of the system).

Newcomers worry, with so many activities and changing adults in the classroom, where the continuity is from one day to the next, but an important source of continuity is collaboration of adults with the children. For example, if children are reading novels in shared-reading groups with different co-opping adults on successive days, it is not necessary for each co-op to be on top of what happened (in the book or in the group) before the day begins. The children can tell the co-op what is going on. Such reflection on the reading and the group's efforts provides the children with the opportunity to summarize for a communicative purpose (i.e., the co-op really needs the information; he or she is not simply testing the children on whether they understand the story). A co-op who asks the children "what are we supposed to be doing today?" provides the children with a chance to reflect on the purpose of their activity and to report their difficulties in understanding in ways that an adult who is thus informed can help them to manage. If adults only were in charge of things and "in the know," children would not need to reflect on what they did yesterday and how it relates to what they are going to do today.

The collaborative nature of the program is supposed to apply to the adults involved, not just the children. Ideally, the teachers are closely involved with each other across classrooms, and the teachers and parents in each classroom build on each others' efforts. Newcomers often worry that they need to make sure that each child is receiving their instruction equally; old-timers see that overall the children balance out in their involvements in different activities with different people. They help the teacher stay abreast of the progress of children who may be having difficulties, but otherwise trust that the teacher is monitoring the bigger picture for each child's learning. In a community of learners, the whole is greater than the sum of the parts and different people have differing roles. Each child has multiple opportunities to get involved with the subject matter, connecting with different individuals.

The paradigm shift experienced by adult newcomers who begin to understand a community of learners is facilitated by the same processes for the adults as is the children's learning of the curriculum of the school: facilitation by those who understand, emphasis on the process of learning, motivation inherent in the activities, evaluation during the process of participation, and collaboration. As pointed out by former OC principal, Carol Lubomudrov (in press), and former OC teachers Marilyn Johnston, Theresa Cryns, and Marcy Clokey-Till (in press), the collaborative decision-making and learning processes among the adults in the program mirrors the processes that the community of learners is intended to produce with the children.

Often, community members express frustration at the extent to which committees and classrooms need to revisit decisions and procedures that have already been devised ("reinventing the wheel").

However, just like each new classroom of children needs to participate in the *process* of learning to read and do arithmetic and solve problems together (rather than having knowledge "poured into" them in an adult-run model), each new generation of adult participants needs to participate in the *process* of learning to lead in a community of learners. Neither the children nor the co-ops discover the process on their own (in a children-run model); with their participation with others in ongoing structured activities they begin to see and become part of the continually dynamic structure of practice.⁷

The developmental process for adults in coming to understand the underlying philosophy of the community-of-learners model is apparent from remarks made by an old-time co-op in response to the written survey that we carried out with the co-ops (in collaboration with the program's philosophy committee). This person had co-oped for 11 years in the OC, for several children, as a single working parent. She stated that she chose the curriculum areas in which she worked in the classroom (drama, sports, writing) for "personal enjoyment. [I] like to teach & learn from students." When asked how her co-oping skills and understanding of classroom procedures have changed with experience, she wrote,

I first relaxed and "let go" of my memory of "school" and let it teach you—be flexible and absorbent, trying not to push a concept but being aware of learning and teaching moments.

When asked when and how she began to know what she was doing, she reported,

Midway thru 2nd year. So long ago but it happened by accident, somehow the topic changed during a small group of spellers and we were discussing "words" and how they were really just "symbols" & soon after we had a pantomime group & I focused on charades and rebus puzzles, all ways of saying the same thing in dif. ways.

Asked for suggestions we could pass on to new co-ops to help them learn how to co-op, she wrote, "Relax - it is the process not the product . . . a journey not a destination."

In response to a question about philosophy in the different classrooms, her comment expresses the differences between adult-run and children-run approaches and the underlying structure of a community of learners.

Some parents are academic oriented, others want freedom, & these groups clash. I'm a fence sitter - I want a spider's web. A structure so fine and strong you don't know you're on it. It allows freedom of choice & those choices have been designed to provide learning experiences that are subtle and provide strong basic academic foundations w/o being forced or rote.

The Three Models—Learning New Practices Through Participation

The argument of this paper is that a community-of-learners model is a distinct philosophy of how learning occurs that involves a coherent set of assumptions guiding practice; it is not simply what is commonly regarded as a balance of freedom and control embodied in one-sided models of learning (adult-run and children-run). With two lines of research, I have tried to demonstrate that although the community-of-learners model is not usual in middle-class European-American schools and families, it is a coherent functioning model in some schools and in families in other communities.

The fact that the community-of-learners philosophy is difficult for middle-class European-American researchers, teachers, and parents to understand at first glance, and that it is commonly assimilated to the more familiar one-sided dichotomy, is further evidence that the community-of-learners model is a different paradigm than the one-sided adult-run and children-run models. The observation that newcomers to the community of learners model often seem to need to participate themselves in the practices to align their thinking with the philosophy is consistent with the idea that learning itself is a process of transformation through participation and keen observation.

If learning and development are conceived of as processes of participation (Rogoff, Baker-Sennett, Lucas, & Goldsmith, in press), school or family engagements based on any of the three models can be examined for the learning that would accompany the process of participation in each. In other words, it is not only in a community-of-learners model that learning would occur. But the learning of participants in a community of learners would differ in principled ways from those of participants in adult-run or children-run models.

There appear to be few differences in learning of the academic matter of school between students from US schools organized according to the community of learners and adult-run philosophies. Although the philosophy of learning used in the OC is at variance with the assessment procedures of traditional tests, OC students usually perform at or above the level of students in other schools in all topics except spelling and punctuation. The reputation of OC graduates among junior high school teachers is that the students are especially well prepared in conceptual aspects of mathematics and writing and oral expression.

The differences between a school based on a community-of-learners model and one using the traditional adult-run model appear to be greatest in other aspects of the students' learning which have to do with the nature of their participation: In communities of learners, students appear to learn how to coordinate with, support, and lead others, to become responsible and organized in their management of their own learning, and to be able to build on their inherent interests to learn in new areas and to sustain motivation to learn. OC graduates have the reputation among junior high school teachers and recent graduates and their parents of being especially motivated to learn and skilled in management of their time. They are also perceived as effective users of teachers as resources, socially mature, and as having group and community leadership abilities (Rogoff, Matusov, & White, in preparation). In adult-run models, students learn how to manage individual performance that is often measured against the performance of others, to carry out tasks that are not of personal interest and may not make sense to them, to demonstrate their skills in the format of basal text answers and test questions, and to figure out the criteria by which adults will judge their performance to be better than that of others.

Clearly, both kinds of learning have a place in preparing children for the adult world; judging the worth of the two requires value judgments regarding what is important to learn. In addition, judging the value of the two models requires consideration of the other functions and special interests that schools and curricula serve in the nation's political and economic system, such as selecting children for opportunities for special programs or higher education.

Rogoff et al. (1993) suggest that individuals can become "fluent" in more than one philosophy of learning and its practices. Although the models of learning used by the Mayan and the middle-class European-American families prepare children differently to act as members of groups and observe

recently or to engage in lesson-format discourse, members of each community can benefit from learning through the other model. Mayan children can learn how to participate in adult-run schools while retaining skilled participation in the community-of-learners model; middle-class European-American children can learn how to participate as members of a community while still building on their skills in acting as recipients of adult lessons. Indeed, Toma (1993, personal communication) has suggested that in Japanese child development an important aspect of learning is becoming skilled in several models of learning, and coming to understand the different circumstances of each (with Japanese elementary education structured similarly to a community of learners and after-school study "juku" classes structured more as adult-run instruction). Rather than trying to select only one model to use in all situations, we may do well to foster children's and our own flexibility in using different models in different circumstances.

The point of this article has been to articulate the philosophical differences between the community-of-learners and the adult-run and children-run models for consideration and to argue that whatever choices are made, learning is a matter of how people transform through participation in the activities of their communities. The distinctness of the community-of-learners model from either one-sided model was supported by the difficulties that newcomers face in understanding the coherent basis of a new philosophy of learning. For researchers, practitioners, and parents, coming to understand the community-of-learners model seems to require the same sort of participation in meaning that is often cited as important for children's learning.

For scholars as well as practitioners interested in the concept of communities of learners, it will be important for us to share in the endeavor of exploring both the commonalities and differences among the varying communities in which we have the opportunity to learn from our observations and participation.

Notes

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² Correspondence concerning this article should be addressed to Barbara Rogoff, Kerr Hall, University of California, Santa Cruz, CA 95064; E-mail: brogoff@cats.ucsc.edu.

³ *The Aims of Education*. NY: New American Library Mentor Books, 1949.]

⁴ Being part of a community does not imply smooth relationships or that everyone is happily supporting each other all the time, as might be assumed by some who search for utopia. Reflection on relationships in real communities would easily note that engagement in shared endeavors also includes contested roles and disagreements, as well as moments of smoothly coordinated ongoing activity.

⁵ However, the metaphor of apprenticeship has sometimes been used in ways that are different than the usage here. For example, Kaye (1982) portrayed young children as apprentices more passively than in any use of the metaphor, and Engeström (1993) characterized apprenticeships as autocratically organized with "tight control of the omnipotent master," which is surely the case for some apprenticeships but arguably not for others.

⁶ Of course, observations of any functioning institution will note variations rather than "pure" examples of the models. In a community of learners, variations within the practices are a resource to the community, providing opportunities for the community to continue developing. In addition, functioning institutions have multiple constituencies and responsibilities requiring compromises, and institutions themselves are always in a process of transformation, especially with the inclusion of newcomers who may not understand the traditions and who contribute to revising them.

⁷ The study also examines the cultural shifts that successive new generations engender in the institution itself. ⁸ Thanks to Lave and Wenger (1991) for the terms and the ideas they represent.

⁹ This process is consistent with Thiarp and Gallimore's (1988) description of the necessary collaborative arrangements between teachers and administrators in school restructuring.

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