Culture and participation: a paradigm shift
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The present article makes the case that the study of culture would do well to shift the notion of culture to ‘ways of life,’ rather than treating culture as static characteristics of groups (e.g. ethnicity). This would entail a paradigm shift, to focus on people’s participation in cultural communities, across generations. The shift fits a transactional worldview, contrasting with the interactional worldview that is common in mainstream research and everyday life in the US. The article focuses on a way of organizing children’s learning that fits the participation paradigm — Learning by Observing and Pitching In to the activities of family and community — that appears to be common in Indigenous and Indigenous-heritage communities of the Americas.

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In this article, I first place these paradigms for conceptualizing culture in the context of classic worldviews. I argue that considering culture as ways of life comprises a paradigm distinct from prototypical views of culture in mainstream psychology. I then examine more specifically how a focus on participation in cultural practices helps us get beyond the reduction of culture to static social addresses such as ethnicity, race, or nationality — by focusing on people’s participation in their communities' ways of life. Then I focus on a way of organizing children’s learning in which they are integrated as participants in community life, rather than being segregated in a ‘child world’ separate from adults. Finally, I argue that difficulties for adults and institutions in understanding distinct cultural ways are evidence of differences in paradigms.

Participation as a paradigm fitting a transactional worldview
Looking at culture in terms of participation in cultural processes, rather than a collection of characteristics attributed to separate individual and ethnic entities, amounts to a shift between distinct worldviews [3,4].

Although focusing on participation is not the mainstream approach in psychology and related disciplines, I am not alone in focusing on participation as a way of understanding the relation of individuals and environment. The seminal scholarship of Dewey, Leont’ev, JJ Gibson, SH White, Ochs, and Lave, among others, has led me in this direction, along with scholars of Indigenous Knowledge Systems (see [5**]). The lessons I learned about children’s learning in both a Guatemalan Mayan community and in an innovative US public elementary school were necessary for me to make a paradigm shift in my own thinking regarding how individuals relate to each other and to communities [6,7].

In distinguishing philosophy of science differences between classic trait, interactional, organismic, and transactional worldviews, Altman and Rogoff [8] provided a rubric to compare how each worldview handles units of analysis, time and change, causation, and the aim of investigation. My focus on people’s participation in cultural practices corresponds most closely to what Altman and Rogoff called a transactional worldview (also called a contextual worldview), and the mainstream approach in psychology corresponds most closely to what they called an interactional worldview.

Altman and Rogoff described the differences between the philosophy of science in these two worldviews as

Introduction
The mainstream paradigm relating individual and cultural aspects of human functioning treats these as separate entities, in interaction. This can be seen in many textbooks showing them in separate boxes with arrows connecting them [1]. This article focuses on an alternative paradigm, focusing on people’s participation in cultural practices and emphasizing the active and interrelated roles of both individuals and cultural communities.

I believe that a focus on participation is the basis of a wide shift in paradigms for conceptualizing many aspects of human functioning and human development. It involves examining people’s ways of life as ongoing process rather than considering humans as collections of traits or characteristics. This shift has deep theoretical, empirical, and practical implications for how we think about and treat people’s thinking, learning, development, and relations with other people, their communities, and themselves [2].
follows (quotes come from a table that also includes similar analyses of trait and organismic approaches, Altman and Rogoff [8], p. 13).

**In an interactional worldview:**

- The unit of analysis is
  “psychological qualities of person and social or physical environment treated as separate underlying entities, with interaction between parts.”

- The view of time and change is that:
  “change results from interaction of separate person and environment entities; change sometimes occurs in accord with underlying regulatory mechanisms, e.g., homeostasis; time and change [are] not intrinsic to phenomena.”

- The approach to understanding causation
  “emphasizes efficient causes, i.e., antecedent-consequent relations, ‘push’ ideas of causation.”

- The aim of investigation is to
  “seek laws of relations between variables and parts of system; understand system by prediction and control and by cumulating additive information about relations between elements.”

**In a transactional worldview:**

- The unit of analysis is
  “holistic entities composed of ‘aspects’, not separate parts or elements; aspects are mutually defining; temporal qualities are intrinsic features of wholes.”

- The view of time and change is that,
  “stability/change are intrinsic and defining features of psychological phenomena; change occurs continuously; directions of change [are] emergent and not preestablished.”

- The approach to understanding causation
  “emphasizes formal causes, i.e., description and understanding of patterns, shapes, and forms of phenomena.”

- The aim of investigation is to
  “describe and understand patterning and form of events; [there is] openness to seeking general principles, but primary interest [is] in accounting for event; . . . prediction [is] acceptable but not necessary.”

The participation approach to understanding the relation of individual, social, and community life that I have been developing [1,9–12] corresponds with a transactional worldview. The following features distinguish the participation approach from mainstream approaches that separate individual, social, and cultural aspects of human life into separate entities or factors, corresponding with an interactional worldview. In my view,

- The relation between individuals and cultural communities is mutual, holistic, and emergent — people participate in practices available from prior generations, and in the process, they and their generation contribute to the maintenance, transformation, and abandonment of the practices of cultural communities.

- Ongoing emergent change is inherent to individual and community life.

- Understanding causation involves describing patterns of phenomena (as well as experimental descriptions of phenomena). A focus on describing patterns is a necessary part of understanding how things work, aided by examining how they change across time or vary in widely distinct circumstances. Understanding how processes work may involve testing predictions, but that is not necessary.

- The aim is to find the patterns that characterize the role of specific situations in the expression of general principles that are inherently contextual. General principles require inclusion of contextual variation according to specific situations.

**Participation in cultural practices instead of membership in bounded social groups**

The mainstream paradigm for understanding culture in the social sciences and in the US public treats culture as an immutable characteristic of an individual as a member of a bounded group defined by the individual’s ancestry or birthplace. Thus culture is conceived as synonymous with ethnicity, race, or nationality. One obvious problem with this ‘social address’ or ‘box’ view [1] is individuals’ likelihood of identifying with more than one group and the proliferation of possible groups through migration, culture contact, and parenting across ethnic groups, races, or nationalities (see Hong et al., this issue).

The mainstream paradigm treats culture as an independent factor or variable, separate from other characteristics of the individual or the context, and attempts to connect individual and cultural characteristics in a mechanical interaction [13]. Treating culture or ethnicity as a variable may be a convenient shorthand in some studies (and they are worthy of study in their own right), but they are an impoverished way to understand culture as ways of life [1].

From a participation perspective, understanding culture — as ways of life — requires recognition of the holistic interrelatedness of many aspects of ways of life. Human functioning and development can be understood
as participation in “dynamically integrated constellations of cultural practice” that bear relations with each other that preclude treating them as independent of each other ([13], p. 213; [6,14]).

For example, communities that require children to attend school for a dozen or more years also tend to have occupations that depend on the credentials of schooling, employment outside the home for both parents, institutional care for even very small children, geographic mobility, family structure that does not include extended family members or even many children, competitive relationships, segregation of children from the range of community activities, and many more features of what could be called ‘middle-class life’ [15]. Efforts to treat these features as independent of each other, controlling variables, destroy the opportunity to understand cultural ways of life.

A participation paradigm shifts our conceptualization of culture to focus on processes, as people engage in cultural activities, rather than on static characteristics (such as ethnicity). Thus, cultural analysis examines individuals’ participation in the practices of cultural communities, rather than equating culture with their belonging to a bounded ethnic, racial, or national group. (The study of ethnicity also matters, but I am arguing that it is not the same as the study of culture.) A historical analysis is essential for understanding human development as well as cultural communities, as both individuals and communities simultaneously and continuously change while maintaining some ties with practices they inherit from prior generations [6].

For example, a cultural analysis of the life of the prominent Guatemalan Mayan midwife, doña Chona Pérez, would include description of the practices in which she engages — such as speaking Tz’utujil (and a tiny bit of Spanish), wearing traditional clothes (except for her Birkenstocks), attending an Evangelical Protestant church (where her son is the pastor), and using birthing practices that derive from ancient Mayan wisdom as well as from more recent adoptions from Western medicine. Such a cultural analysis goes beyond categorizing her as Latino, on the basis of where she was born, or Indigenous, on the basis of her ancestry (which happens to include more European than Mayan ancestors [6]).

A participation approach focuses on the dynamic continuities and changes as individuals and their generations engage in the practices offered them by prior generations, and in the process they maintain, modify, or reject those cultural practices. Doña Chona participates in practices that have occurred for many generations in her community as well as others that are impositions or adoptions from other communities in the last generations or centuries, and she herself has innovated changes in some cultural practices of her community in the realm of birthing [6].

Moving from thinking of culture as a static characteristic of a group of people to a dynamic way of living shifts the focus of analysis of culture. It becomes an empirical question of how people engage in distinct cultural practices and cultural communities, contrasting with a mainstream approach that assumes that knowing people’s social address defines their characteristic cultural practices. Generalizing about cultural patterns requires empirical examination in a variety of cultural communities and circumstances; generality cannot be assumed from specific observations, based on ethnic or national labels.

The next section describes a way of organizing learning that appears to be common in many Indigenous and Indigenous-heritage communities of the Americas. This approach is based on individuals participating in and contributing to ongoing family and community endeavors. Learning by Observing and Pitching In is a participation paradigm based in a transactional worldview, unlike the approach that is common in Western schooling and many middle-class families, which is based on an interactional worldview.

A cultural paradigm based on fostering children’s participation in family and community endeavors

Thus far, I have argued that viewing human functioning as a process of participation in cultural communities is a paradigm shift from the mainstream paradigm, which treats individual and cultural aspects as separate entities with independent characteristics. This paradigm shift carries through to ways that human learning is conceptualized and organized in distinct cultural communities. In mainstream middle-class US communities, children’s learning is generally regarded as the result of either the transmission of information from adults to children or as the acquisition of information and skills by children, separate from other people. This dichotomy often leads to a pendulum swing between these two poles, which have in common the separation of the child from adults and the world at large.

The participation paradigm is not on that pendulum swing at all. Children’s learning, in a participation paradigm, is a process that is integrated, not bounded off from the actions of adults or of the broader world. Children engage with others in shared endeavors. In my 1990 book and in a number of articles since the 1980s, I attempted to make the case that child development is a process that involves active, interrelated roles of children and their social, cultural worlds. Such interrelated roles of children and their social, cultural worlds can involve many forms of what I dubbed guided participation [10].
One form of guided participation occurs in some communities that prioritize children’s participation in the wide range of family and community activities, as in many Indigenous communities of the Americas. This is a model that my colleagues and I have been studying for several decades, Learning by Observing and Pitching In (LOPI [16**]; previously called Intent Community Participation [17,18]). See Figure 1.

Learning by Observing and Pitching In appears to be particularly common in Mexican and Central American communities, especially those with Indigenous histories, as well as among immigrants to the US from those regions and in Native North American communities [16**]. However, it is likely that LOPI is used in all communities, especially as children learn their first language by participating in its use. In addition, a few innovative schools are organized in ways that resemble LOPI, with collaboration among children and adults in school-community endeavors [17].

Key to LOPI is the inclusion of children in the wide range of activities of the family and community, shown in the central facet, Facet 1 of the LOPI prism of Figure 1 [16**,19]. This inclusion contrasts with the segregation of children from community life in mainstream middle-class communities, which created child-worlds separate from adult-worlds [20].

Related to the inclusion of children, allowing and supporting their participation, are Facets 2–7 of Learning by Observing and Pitching In. The list below describes these six facets, with descriptions from Rogoff [16**], accompanied by references to work focusing on each facet. Note however, that all seven facets are interdependent, forming a whole. (See also our website on Learning by Observing and Pitching In www.learningbyobservingandpitchingin.com.)

(Facet 2) Learners are eager to contribute and belong as valued members of their families and communities. Other people trying to accomplish the activity may

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**Figure 1**

The facets comprising the model of Learning by Observing and Pitching In (LOPI).
guide or support the learners’ contributions [21–23]. (Facet 3) The social organization involves collaborative engagement as an ensemble, with flexible leadership as people coordinate fluidly with each other, with children as well as adults taking initiative [24–28]. (Facet 4) The goal of learning is transforming participation to contribute and belong in the community by learning to collaborate with consideration and responsibility, as well as gaining information and skills [29,30*,31–36]. (Facet 5) Learning involves wide, keen attention, in anticipation of or during contribution to the endeavor. Guidance comes from community expectations and sometimes also from other people [37–43]. (Facet 6) Communication is based on coordination that builds on the shared, ongoing reference available in participants’ mutual endeavors, with nonverbal conversation and verbal means as well as narratives and dramatization [36,44,45]. (Facet 7) Assessment includes appraisal of the support for the learner as well as the learner’s progress, to aid learners’ contributions during the endeavor. Feedback is available from the outcome of learners’ efforts and others’ response to the efforts as productive contributions [26,34,46,47,48*].

The multifaceted aspects of LOPI contrast with how children’s learning is often structured in mainstream schooling — Assembly-Line Instruction. The multifaceted aspects of these two contrasting paradigms are not simple conglomerations of variables, but instead have coherence in peoples’ repertoires of practices and the repertoires that are common in the practices of cultural communities [49,50*].

*Learning by Observing and Pitching In* to the activities of the family and community differs from Assembly-Line Instruction in paradigmatic ways (see also [47]). These two paradigms differ in their theories of learning, social organization of the community and of social interaction, means of learning, the basis of motivation, goals of learning, forms of communication, and ways that learning is assessed. These two approaches fit distinct paradigms and worldviews, with differing cultural values regarding the importance of relationships versus task completion, assumptions about the nature of time, and relations between humans and the natural world [51*].

**Evidence that LOPI is a distinct paradigm**

Making a paradigm shift requires letting go of one assumption system to be able to use another; it is more challenging than just adding some new information. The difficulties faced by institutions and individuals in trying to shift from Assembly-Line Instruction to Learning by Observing and Pitching In provide evidence supporting the idea that these fit distinct paradigms.

Although there are many calls to get beyond Assembly-Line Instruction in schools and beyond deficit thinking about cultural communities, such changes have been difficult to accomplish. Of course, some reasons have to do with efforts to protect privilege. But other reasons have to do with difficulties for people to recognize paradigms and to make paradigm shifts.

Many of the adults who populate and control mainstream settings have extensive experience in the dominant paradigm (such as Assembly-Line Instruction, in many school settings). For these adults, recognizing and becoming skilled in the repertoires of practices of another paradigm may be challenging. It is often difficult to avoid value judgments based on one’s familiar paradigm and to see the paradigmatic basis of one’s own cultural experience as well as of unfamiliar ways of life.

Several studies reveal challenges for adults who are trying to expand their practices, in order to be able to engage effectively with institutions and children whose cultural background appears to involve a paradigm for learning that contrasts with the adults’ own experience. The challenges experienced by middle-class teachers and parents observing and attempting to fit with a collaborative guidance model rather than a controlling model of instruction [7,28,52,53] support the idea that LOPI and the participation approach comprise a different coherent paradigm than that of mainstream middle-class practices.

**Conclusions and future directions**

I have argued for shifting our notion of culture to focus on ways of life, rather than treating culture as static characteristics of groups. Focusing on ways of life entails a paradigm shift to examine people’s participation in cultural communities, across generations. This paradigm fits a transactional worldview that contrasts with the interactional worldview that is common in mainstream research and everyday middle-class life in the US. I have argued that an approach that organizes learning with children integrated as participants in community life — *Learning by Observing and Pitching In*, which appears to be particularly common in Indigenous and Indigenous-heritage communities of the Americas — involves a paradigm shift from the approaches to learning in mainstream middle-class life.

An important direction for future research is to further examine the generality of *Learning by Observing and Pitching In* within Indigenous and Indigenous-heritage communities of the Americas, as well as to examine whether the seven integrated features/facets of LOPI are common in some communities in other parts of the world beyond the Americas. The ethnographic record indicates that some of the features occur
elsewhere — but does the paradigm, as a package, occur more broadly? Many features of LOPI seem to occur in other locations, such as in Bali [54], but it may be that only some of the features are common while others differ. Conceptual work is needed to identify related paradigms, and the societal characteristics that foster each.

Another important direction is to examine whether some features/facets of the LOPI paradigm are more or less resilient, in the face of generational changes, immigration, intermarriages, and other ways that distinct cultural approaches bump up against each other. For example, is the use of keen attention for learning more resilient over generations than the use of articulate nonverbal ways of coordination? Assuming that some aspects are more resilient, what protects those and what weakens the others? This would likely turn the field’s attention to historical and institutional processes in culture change and continuity, as well as the role of individuals’ choices in the different aspects of the paradigms for learning and social interaction that they inherit and use. Making use of a participation perspective would help the field address such questions.

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Nothing declared.

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References and recommended reading
Papers of particular interest, published within the period of review, have been highlighted as:

- of special interest
- of outstanding interest

