

Reconceptualizing Learning: A Critical Task for Knowledge-Building and Teaching

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Abstract: In this symposium, interdisciplinary perspectives and research methods—from the neurosciences, Black and ethnic studies, psychology, anthropology, philosophy, cultural studies, gender & women’s studies, and sociology—come together to elaborate an expansive vision of learning that ignites further inquiry into the cultural foundations of learning—the topic of a new Routledge Handbook (Nasir, Lee, Pea, & McKinney de Royston, forthcoming). This symposium includes interactive roundtables hosted by authors from sections of the Handbook: 1) Human Evolution, Physiological Processes, and Participation in Cultural Practices; 2) Discourse, Positioning, Argumentation, & Learning; 3) Learning Across Contexts; 4) Reframing Culture and Learning; and 5) Implications for Policy and Practice. The session will conclude with reflections from each roundtable and a who group discussion. This symposium, like the Handbook, seeks to synthesize and enrich our understanding of the processes of learning to support our capacity as a field to address critical problems in education.

Keywords: Learning, culture, context, interdisciplinary, theory, methodology

Overall focus of the symposium

Reconceptualizing learning is a critically important intellectual and social project at this time. Recent scientific breakthroughs reveal new and consequential insights about the brain, the complexities of thinking, and the intertwining of learning and the environment that challenge much of what we thought we knew about learning, and much of the science our current educational structures, programs, policies, and practices are built upon. This cutting-edge research can offer novel insights that can inform how we study learning and how we re-design our educational structures, programs, policies, and practices to better cultivate learning and learners who are well-prepared for and can respond to the challenges of today’s world. We take as central the proposition that understanding peoples’ participation in cultural practices is *essential* to the scientific study of learning (Lee, 2017; Nasir, 2012; Pea, 1987, 2004; Rogoff, 2003). We view learning as fundamentally cultural, unfolding through multiple pathways that occur in relation to shifting social and contextual conditions, to which humans are constantly adapting. We view attention to cultural processes undergirding learning in expansive ways as a requisite subject of scientific investigation and not solely an object of political and ideological debate.

We are at a pivotal point in our efforts to understand the complexity of human learning and development. While efforts to focus on singular processes (e.g. cognitive, socio-emotional, developmental) or singular factors (e.g. motivation, executive functioning) have yielded important insights, they typically fail to account for the variation and contextual nature of such functioning. What is emerging across relevant fields that seek to understand human learning and development, albeit from different points of entry, is that human learning and development unfold within complex systems whose dynamic interactions are not fully understood. These include interactions among physiological processes, neurological processes, people’s participation in cultural practices within and across time (phylogenetic time from our evolution as a species, cultural historical time, ontogenetic time in terms of where people are in the life course, and microgenetic time in terms of moment-to-moment interactions in the social and physical worlds (Lemke, 2000)), and their participation in cultural practices across spaces. And essential in this understanding of cultural practices is the understanding that people always, and often simultaneously, participate in multiple cultural communities of practice (Gutiérrez & Rogoff, 2003). Social interactions among people are as essential to learning as the artifacts (physical and ideational) are that get used in such interactions to facilitate meaning making and problem solving. While our understanding of such complex systems as the cauldron of human learning and development is emerging, in this symposium we begin to offer syntheses spanning multiple disciplines of what we have strong empirical evidence to support. These syntheses

position participation in cultural practices as keystone and not merely an add on; they are grounded in seeking to account for the functionality of the diversity of pathways through which human learning unfolds as expansive opportunities to support robust and resilient learning.

It is vital to developing such a science of learning as cultural to be informed by interdisciplinary perspectives and research methods. Thus, in this symposium, we bring together cutting-edge scholars and thinkers—from the neurosciences, Black and ethnic studies, psychology, anthropology, philosophy, cultural studies, gender & women’s studies, and sociology—to elaborate an expansive vision of learning that ignites further inquiry into the cultural foundations of learning—the topic of a new Routledge Handbook (Nasir, Lee, Pea, & McKinney de Royston, (forthcoming). Across the volume, and relatedly the symposium, we argue that one way to rethink the relation between culture and learning is to highlight that there are multiple pathways to learning, and that these pathways occur in relation to expansive and shifting social and contextual conditions, to which humans are constantly adapting. However, expanding our notions of culture and learning (as scholars) are connected to fundamental ideas about learning that are deeply embedded in the science of learning—sampling, research techniques, study design. Expanding how we think about culture and learning beyond narrow conceptualizations therefore also implies rethinking and expanding how we study learning in relation to cultural processes. Key to this inquiry are fundamental stances about what constitutes and is privileged as human ways of knowing, being, and doing. Without attention to how the question, “what is learning?,” gets understood and changes over time comes the risk of falling into reductionist and problematic views of learning, that are unfounded empirically and further reproduce social inequities.

An interactive preview of the discussions taken up in the Handbook, this symposium engages participants in roundtable discussions with authors from each of the major sections of the Handbook: 1) Human Evolution, Physiological Processes, and Participation in Cultural Practices; 2) Discourse, Positioning, Argumentation, & Learning; 3) Learning Across Contexts; 4) Reframing Culture and Learning; and 5) Implications for Policy and Practice. The aim of the symposium is to initiate conversations within and across roundtables that grapple with enduring and new questions in the learning sciences and other relevant fields. To this end, we have been intentional about inviting scholars whose work provides insights into how we define culture and learning, and the interplay between the two. This symposium, like the Handbook, seeks to synthesize and enrich our understanding of the processes of learning to support our capacity as a field to address critical problems in education.

Understanding learning as culturally informed

Culture is the medium through which humans adapt to the conditions of life. Culture, then, is the way we organize our worlds to create routines that allow us to meet basic human needs and biological demands. Despite the foundational nature of cultural processes for our humanity, in research on learning we have too often taken a much narrower perspective on culture. Culture, from this narrower perspective, is viewed as a property of minoritized groups—an orientation or set of practices that get in the way of school learning. At the other extreme, anthropologists (e.g. Ray McDermott; Mike Cole; Norma Gonzalez) have made the argument that narrow theories of learning and theories of culture inherently create the marginalization that they reflect on. In fact, many societies don’t explicitly articulate a theory of learning; learning is just something that people do as a part of their daily lives. Learning theory, in and of itself, can thus become a way to talk about and reify difference. Hence, the institutionalization and spread of narrow theories of learning is a part of the problem. Similarly, the very term ‘culture’ can be viewed as problematic, as the concept has been used from its inception in limiting ways that maintain racism and hierarchies of inferiority and superiority.

The forthcoming Handbook takes as central the proposition that understanding peoples’ participation in cultural practices—as they are set within historical, social, and developmental processes—is *fundamental* to the study of learning. This means understanding that learning unfolds through multiple pathways that occur in relation to expansive and shifting social and contextual conditions, to which humans are constantly adapting. Emerging across relevant fields is an understanding that human learning and development unfolds within complex systems. These include interactions among physiological processes and people’s participation in cultural practices within and across time (phylogenetic time, cultural historical time, ontogenetic time, and microgenetic time) and across spaces. We view attention to the cultural processes that inherently undergird all learning in expansive ways as a requisite subject of scientific investigation and not solely an object of political and ideological debates.

Hence, our aim—with this symposium and with the Handbook—is to bring the learning sciences community into conversation around the importance of expansive theories of learning that do not simply see a connection between culture and learning, but that inherently understand learning as always culturally informed—learning is inherently cultural. The expansive theories that will be presented in this symposium are designed to invite, and even require, participants in this session to consider how to: 1) approach learning from new

perspectives; and/or 2) use new conceptual and methodological tools and research techniques that could lead to progress on important social issues—issues which current ways of framing have failed to address adequately. At a time when key concerns about how educational practices, spaces, policies, systems, and teaching should be designed, funded, and assessed, this foundational work and these robust discussions on learning are timely and critically urgent.

Symposium format

The format for the symposium will be highly interactive. The session will begin with the co-chairs (who are also the Handbook editors) framing the goals and provocations for the session and briefly introducing the themed roundtables (drawn from corresponding Handbook sections) and respective authors (~10 minutes). These themes are described below and include: 1) Human Evolution, Physiological Processes, and Participation in Cultural Practices; 2) Discourse, Positioning, Argumentation, & Learning; 3) Learning Across Contexts; 4) Reframing Culture and Learning; and 5) Implications for Policy and Practice. Following this opening framing, participants will be invited to join a roundtable of their choosing. Each roundtable discussion will begin with a 1-2 minute overview by the respective authors about the main arguments and contributions of their handbook chapters. Each roundtable will then engage in a set of guiding questions specific to their roundtable theme (presented below under each roundtable). These guiding questions are designed to provoke discussion and encourage active dialogue between participants and presenting authors (~50 minutes, including transition time in and out of the round tables). The session will conclude with reflections from each roundtable (10 minutes; 2 minutes per group) and a whole group discussion across the roundtable authors and the participants (20 minutes).

Roundtable #1: Human evolution, physiological processes, and participation in cultural practices

Carol Lee (co-chair), Michael Cole, Martin Packer, Pat Kuhl, Andy Meltzoff, Carly Offidani-Bertrand, Keshia Harris, Gabriel Velez, Margaret Beale-Spencer, Leoandra Rogers, R. Josiah Rosario, Janene Cielto, Francisco J. Rosado-May, Luis Urrieta Jr., Andrew Dayton, and Barbara Rogoff

Human learning and development unfold in complex systems and ecologies. Human learning and development are outgrowths of the intertwining of dispositions and competencies we inherit from our evolution as a species and the ways that such dispositions and competencies are taken up through relationships between physiological processes and people's participation in cultural practices. These cultural practices are ecological in that they are manifested in relationships and the social organization of settings from the micro (e.g., family, social networks in communities, institutions such as schools, churches, community organizations) to the macro (broader societal policies and institutionalized belief systems at the societal level or more broadly across societies). Social relationships, perceptions of self and others, and tasks and settings influence goals, motivation and persistence. The nature of these contributors to human learning and development is cultural in nature, channeled by differentiation in contexts and our position in the life course and within cultural-historical time. Among the challenges with which we wrestle across the life course are our navigations with issues of power and privilege as these shape what is available to us as sources of risk and resilience.

This roundtable features authors who will briefly synthesize the human development and evolutionary science literature foundational to understanding how culture not only impacts human development and learning, but that development and learning are cultural in their very nature. Indeed, culture is the medium through which humans adapt to the varying conditions of life. In addition to evolutionary and neuroscience perspectives, this roundtable will discuss current research on cultural developmental perspectives that include anthropological and psychological accounts of learning and issues related to learning that demonstrate how learning is culturally embedded and takes shape in interaction with learning settings and social others.

Guiding questions:

- 1) How are development and learning fundamentally and inextricably cultural? How does culture impact human development and learning?
- 2) How does human learning and development always unfold in complex systems and ecologies?

Roundtable #2: Discourse, positioning, argumentation, and learning

Roy Pea (co-chair), Ray McDermott, Judith Green, Cynthia Brock, W. Douglas Baker, Pauline Harris, Sarah R. Levine, Danielle Keifert, Ananda Marin, Noel Enyedy, Alfredo Artiles, David Rose, Aydin Bal, Taucia Gonzalez, Nelson Flores, and Erica Saldívar García

Humans uniquely interact using both their bodies and the representational systems of culture as a social process to make meaning for reproducing and innovating culture. How we communicate using diverse modes of semiotic expression—the body, spoken or written language, symbol systems—is integral to what it means to be human and to learn. The what, how, where, when, why and who of human learning is sculpted by the complex and consequential history of how differences have been socially constructed in discourse and experienced in society, how they relate to power and privilege, and how they have contributed to political and economic inequalities. The marking of differences by gender, class, race, language, ability and other categorizations has consequential outcomes for learners and the learning opportunities and identities made accessible for them in their learning ecologies.

The authors in this roundtable will address some of the ways in which learning is shaped by people's participation in cultural practices and by these markers of difference. Moreover, this roundtable will examine how humans use their bodies and representational systems to mediate meaning making for both reproducing and generating new cultural practices. Here, authors define, in part, what it *means* to be cultural – engaging bodily, symbolic and interactive vehicles of meaning making and sense-making through participating in cultural practices. The authors in this roundtable discuss both the foundations of this encompassing argument (i.e. Dewey, James, Vygotsky, Bakhtin, Marx, Bateson & Mead) and identify several key organizing categories for scholarly analysis of language, positioning in discourse, mediation, argumentation and tools in relation to culture and learning. Finally, they also consider how certain cultural forms such as language and certain ways of learning are differentially privileged and how the disruption of these power hierarchies requires articulating and enacting culturally affirming and sustaining theoretical, methodological, and pedagogical approaches.

Guiding questions:

- 1) How is learning differentially shaped by people's participation in cultural practices? Specifically, how do humans use their bodies and representational systems to mediate meaning making for reproducing and generating new cultural practices?
- 2) How are certain cultural forms and ways of learning differentially privileged? How can these power hierarchies be disrupted towards supporting culturally affirming and sustaining theoretical, methodological, and pedagogical approaches?

Roundtable #3: Learning across contexts

Na'ilah Nasir (co-chair), Brigid Barron, Philip Bell, Roy Pea, Reed Stevens Shelley, Tryphenia B. Peele-Eady, Elizabeth Birr Moje, Shirley Brice Heath, Michelle Bellino, Maisha T Winn, H. Samy Alim, Django Paris, Casey Philip Wong, Beth Warren, Shirin Vossoughi, Ann S. Rosebery, Megan Bang, and Edd V. Taylor

This third roundtable is centered around the recognition that a cultural orientation to learning requires a rich and multi-layered way of thinking about spaces and places of learning and the understanding that learning is ubiquitous. It occurs in societies around the globe as a normal part of human activity, both in settings organized for the explicit purpose of teaching and learning (e.g. schools, apprenticeships, rites of passage), and as part of the settings and activities that make up daily life (e.g. in families, children's play, in communities, at work, in leisure activities, and on the go). Our theories of learning, then, must account for learning activity in all of its iterations and forms, and further, must be applicable to the full range of types of learning that occur across multiple communities and societies. Further, they must help us account for the ways that marginalization is a pervasive condition of social life, and thus to determine how learning occurs in relation to, and sometimes in spite of, the conditions and systems of marginalization that fundamentally organize societies. In other words, at times, learning is also contested activity, involving the navigation of systems of power.

Learning necessarily occurs within and across local settings, like schools, families, and after-school settings, and research has documented the wide range of ways learning gets organized, and access to learning is afforded in various kinds of learning arrangements in these settings. These local settings, however, are fundamentally influenced by the institutions, organizations, and societies within which they are set, and by the policies and assumptions that guide these settings. Thus, an account of the cultural nature of learning must also be an account of the ways in which learning is inextricably tied to the multi-layered spaces and places within which it occurs. The authors in this roundtable summarize the research documenting the multiplex cultural nature of learning within and across learning environments. Specifically, they will focus on fleshing out the conceptual approaches to understanding learning within and across settings, the nature of learning both in schools and in out-of-school settings, and how the organization of learning environments and access to them is also deeply influenced by institutional, organizational, and policy contexts. Taken together, the authors for this roundtable will provide

participants an opportunity to reexamine how we understand what learning is, why and how it is organized, and who does it effectively, in what ways.

Guiding questions:

- 1) How is the organization of learning environments and access to them deeply influenced by institutional, organizational, and policy contexts and power dynamics?
- 2) How can theories of learning account for learning activity in all of its iterations and forms, and be applicable to the full range of types of learning that occur within and across multiple settings, communities, and societies?

Roundtable #4: Reframing and studying the cultural nature of learning

Maxine McKinney de Royston (co-chair), Subini Annamma, Angela Booker, Ezekiel Dixon-Roman, John Jackson, Jr., Kris D. Gutiérrez, A. Susan Jurow, Sepehr Vakil, William Penuel, Louis Gomez, Manuelito Biag, and David G. Imig

This fourth roundtable clarifies what it means to engage in research when we take seriously how we think about learning as cultural for everyone, not just those who have been historically essentialized or exceptionalized via race, gender, class, ability, and other dynamics of power. To understand learning as inescapably cultural requires appreciating how learning is linked to ways of knowing, doing, and being that dynamically unfold across time and contexts, and in relation to systems of power. Disrupting the boundary between learning *and* culture as separate, yet intertwined entities toward an understanding of *learning as cultural* also means we must interrogate and rethink how we study learning. This process involves rethinking prior conceptualizations and approaches, as well as being open to novel and innovative interpretations and methods. For instance, authors in this roundtable take seriously how power and normativity are inscribed in discussions of learning and within learning contexts and challenge the field to desettle heretofore presumed distinctions between quantitative and qualitative research by rethinking debates about nature versus nurture in the context of racialized, gendered, and otherwise “othered” bodies and realities. They also push beyond the boundaries of educational research, theory, and methodology to take up concerns about the possible futures of peoples and communities and about “human flourishing.”

By design, the discussions within this roundtable reach across the boundaries of disciplinary literatures—including anthropology, economics, ethnic studies, gender and women studies, linguistics, philosophy, and political science—to raise key conceptual and methodological issues that educational research must begin to address. Here, culture is conceptualized as both a set of traditions and practices that ethnic/racial groups have in common, but also as the various ways that daily life is organized and is fluid and changing through social interaction. These discussions may also offer an overview of the growing body of research on learning and diversity, surveying work on race, class, gender, and exceptionality that problematize the essentialization of groups in relation to learning.

Guiding questions:

- 1) In reaching across the boundaries of disciplinary literatures, what key conceptual and methodological issues arise that educational research must begin to address?
- 2) How can we engage in research that takes seriously how we think about learning and development as cultural for everyone, not just those who have been historically essentialized or exceptionalized via race, gender, class, ability, and other dynamics of power?

Roundtable #5: Implications for policy and practice

Arnetha Ball, Gloria Ladson-Billings, and Linda Darling Hammond

Complex and expanded notions of learning, that take seriously the cultural and contextual nature of learning, undoubtedly have significant implications for policy and practice. The way teacher education is organized, and the kinds of policies that are enacted at the local, state, and federal levels are all informed by how learning is conceptualized, and the kinds of learning that are determined as goals. The fifth roundtable of this symposium consists of senior scholars who will articulate a vision for what teacher education and educational policy would look like if we honored the kinds of robust notions of learning along the lines of that which is forwarded and discussed in the other roundtables, and relatedly, the implications this would have for supporting student learning, belonging, and academic success broadly defined. Specifically, the authors in this roundtable will facilitate a discussion among participants about how we should think about policy solutions, teacher learning, and teacher training differently if we were to take seriously the ways in which learning is fundamentally a cultural process.

The authors also explore and examine how a cultural view of learning adds nuance and complexity to our understanding of (as well as the practices of) educational research.

Guiding questions:

- 1) What would teacher learning and education (including professional development) look like if we honored the kinds of robust notions of learning forwarded by the authors presenting in this symposium?
- 2) What would educational policy (from the local to the federal level) look like if we honored the kinds of robust notions of learning forwarded by the authors presenting in this symposium?

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