# **Exploring Sociocultural Perspectives on Race, Culture, and Learning**

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This article explores the potential uses and extensions of sociocultural theoretical perspectives for integrating and further developing research on race, culture, and learning. Two bodies of literature are discussed and synthesized: (1) sociocultural theory and (2) studies on race, culture, and learning. The article proposes how a sociocultural lens might provide insight and suggests new lines of research on issues of race, culture, and learning. The authors argue for the extension of each of four lines of research in the sociocultural tradition: a concern with multiple levels of analysis, cultural practices as a unit of analysis, tools and artifacts as mediating action, and learning as shifts in social relations. In doing so, the authors raise critical questions for the field of education to consider.

**KEYWORDS**: cultural activity, learning theory, minority students, race and power.

Understanding the links between race, culture, and learning<sup>1</sup> has been a core issue in education and educational psychology, and there is a large body of research, spanning many different traditions, that has struggled to make sense of this intersection in ways that have often positioned underachievement of minority<sup>2</sup> students as the problem and has sought to both explain its genesis and offer possible solutions. In this article, we review two literatures that we see as critical to extending our collective knowledge about how race and culture matter for learning: (1) literature on race, culture, learning; and (2) sociocultural theory. In the first two sections, we review key ideas and concepts in these two literatures. In the third section, we consider how core ideas from sociocultural theory might be used to extend our current conceptualization and understanding of the school achievement of minority children and to guide future research on race, culture, and learning. We do not purport a comprehensive review of either literatures—such a task is beyond the scope of this article. However, we do hope to capture the overarching trends in each body of research. Our goal is to elaborate on some ideas and theoretical tools developed in sociocultural theories of learning and explore their usefulness in studying some key issues/questions on race, culture, learning, and school achievement.

Thus far, research on race, culture, and schooling has revealed many significant factors affecting school achievement and has articulated many details of how culture and learning intersect in daily school life. However, while this body of research offers significant and important findings, it has failed to provide an overarching

conceptual framework within which to make sense of and organize findings from multiple studies (Coll, Crnic, Lamberty, & Wasik, 1996) that approach the problem from varying levels of analysis. For instance, while research findings point to both family and classroom culture effects on learning and schooling outcomes, we have little understanding of how these factors interact in the lives of children to produce differential learning outcomes. This lack of cohesion is a problem conceptually, in that we are unable to understand how culture, learning, and school achievement interrelate in a variety of ways. It is also a potential problem in that our limited understanding of these dynamics constrains our ability to better support positive schooling outcomes for underachieving nondominant students.<sup>3</sup>

Sociocultural (or situative) approaches have increasingly been used to understand learning and development (of all students) in a way that takes culture as a core concern (Cole, 1996b; Rogoff, 1990; Saxe, 1999; Wertsch, 1998). These frameworks assume that social and cultural processes are central to learning and argue for the importance of local activity settings in children's learning. From this perspective, understanding learning requires a focus on how individuals participate in particular activities, and how they draw on artifacts, tools, and social others to solve local problems. While sociocultural theories offer frameworks for the conceptualization of multiple factors, processes, and levels of analysis, they have not tended to include the pointed discussion about race and power that is required to understand race, culture, and learning in America's schools (Ladson-Billings & Tate, 2005). (There a few notable exceptions in this regard, including K. D. Gutiérrez, Baquedano-López, & Tejada, 1999; Gutstein, 2005; Lee & Slaughter-Defoe, 1995; and Martin, 2000, in press-b, as well as efforts by the earliest users of Vygotskian theory in this country, i.e., Hood, Cole, and McDermott.)

Perhaps one reason for this lack of overlap between these two bodies of work is the difference in the way culture is conceptualized in these two traditions. Research on the achievement and learning of minority students has tended to view culture as a system of meanings and practices, cohesive across time, which individual members carry with them from place to place (K. D. Gutiérrez & Rogoff, 2003). This view characterizes individuals as somewhat passive carriers of culture, where culture is a set of rituals, beliefs, and fixed traits. Such an operational definition contrasts with the sociocultural perspective on culture as produced and reproduced in moments as people "do" life. From this standpoint, culture is both carried by individuals and created in moment-to-moment interactions with one another as they participate in (and reconstruct) cultural practices. This conception of culture allows for a treatment of culture change and provides a lens through which the local production of culture in moments of classroom life can become apparent and be deconstructed.

To begin, we consider, in broad strokes, the existing literature on race, culture, and learning, synthesizing some important findings and lines of argumentation from this research. Then, we offer a definition and exploration of the main principles of sociocultural theory, considering how current theory in this area reflects these main principles. These two literatures are then considered vis-à-vis one another, as we focus on what a sociocultural perspective might add to our understanding of race, culture, and learning. Finally, we explore potential future directions for extending work in this area, as well as what we see as the likely outcomes from such a line of inquiry.

# Critical Findings on Race, Culture, and Learning

There exists quite an extensive literature on race, culture, and learning. In the following section, we explore some of the early research in the field, which focuses on the deficits (later differences) of minorities, as well as more contemporary scholarship, which covers a range of individual, family, classroom, and environmental perspectives. Striking, however, is the lack of attention to how these multiple components fit together conceptually.

## Deficits and Differences

Early approaches to understanding culture and race in learning processes and outcomes were rooted in the discriminatory social philosophy of their time (Richards, 1997) and sought to explain racial differences on IQ tests and school achievement by attributing these differences to both biological and cultural factors. This body of work assumed that culture was a property of particular racial groups, with some very early work even arguing for the heritability of racial characteristics. For instance, Arthur Jensen (1969) argued that Blacks were inherently less intellectually capable than Whites, and cited the "heritability" of IQ scores as his supporting data. These biological models of deficiency were soon replaced by cultural deficit models, which contended that Blacks were not biologically disadvantaged, but instead were forced (by the historical legacy of slavery and the conditions of poverty) to grow in families that were socially "disorganized" and lacking in adequate cognitive stimulation (Hess & Shipman, 1965; Klaus & Gray, 1968, cited in Cole & Bruner, 1971). Deficits were posited at multiple levels (Howard & Scott, 1981), including broad ideas about culture or social address, family (see Jarrett, 1997), and personality (Keller, 1970).

A key notion in this literature was that of the culture of poverty (Lewis, 1969), which posited that the poor had adapted to their life in a socially stratified society through the perpetuation of a pattern of beliefs and behaviors that included absence of childhood, abandonment of wives and children, predisposition to authoritarianism and feelings of dependence and inferiority (Lewis, 1969). It was partially in an attempt to get ghetto children out of a "culture of poverty" environment and into more stimulating settings that public early childhood education programs, such as Head Start, were designed and founded.

With the changing social tide of the 1970s (including increased numbers of researchers of color), social science altered its view of African American and (now growing numbers of) Latino, Asian, and other minority students in America's schools. A number of scholars in education, sociology, and psychology began to argue that children of color were not necessarily "deficient" in their cognitive and social orientations, but simply "different" (from white children). These scholars pressed the research community to develop conceptual models to better understand the nature of such differences and to explore ways to design curriculum and classroom environments that supported culturally diverse children (Baratz & Baratz, 1970; Cole & Bruner, 1971; Valentine, 1968).

## Understanding Cultural Differences

Researchers have articulated multiple points of difference for minority children, including differences in cognitive and learning styles (e.g., field dependent vs. field independent) (Boykin & Cunningham, 2001; Cohen, 1969; Hale, 1986; Ramirez & Castenada, 1974; Slaughter, 1969) and general cultural characteristics that are

related to learning and linguistic registers (restricted code vs. elaborated code) (Bernstein, 1975). More recently, educational anthropologists have highlighted the role of communication styles (Cummins, 1986; Mehan, 1979) and the nature of social interaction and cultural norms (Au, 1980; Foley, 1991; Goldenberg & Gallimore, 1991).

This later wave of difference research has often been referred to as microethnography (although this term is somewhat controversial), capturing the focus on ethnographic, process-based descriptions of the teaching and learning of minority students. A core premise of these studies is that schooling occurs as teachers and students negotiate complex social interactions—interactions often informed by differing sets of norms and conventions. These scholars have documented racial or ethnic differences in many aspects of communicative processes and ways of doing and knowing and have argued convincingly that these differences often operate in quiet ways to undermine the school performance of minority students.

This line of research has been fundamentally concerned with gaining a better understanding of how race plays out in schooling environments—exploring what it means for children's daily schooling experiences to be African American, Latino, Asian, Native American, or White. Findings have shown that when students behave and interact in ways that differ from the norms and expectations of their schooling institutions, both learning and school achievement suffer (Cummins, 1986; Foley, 1991; Rist, 1973).

Many researchers have extended the cultural difference paradigm to create class-room interventions to support the learning of students of color. Hence, pedagogical strategies such as multicultural education (Banks, 1979; Banks & McGee, 2001; Gay, 2000; Grant & Sleeter, 2003; Nieto, 1996), cultural responsiveness (Cazden & Leggett, 1981; Gibson, 1976) and culturally relevant pedagogy (Ladson-Billings, 1995) have emerged. Such strategies promote the inclusion of minority ways of doing and knowing into classroom processes (Au, 1980), increased representations in curriculum materials (Dhand, 1988), and increased participation in school by minority families (Clark, 1983; Moll & Diaz, 1987), and press for an ongoing critical perspective that helps students reflect on the implications of minority status (Banks, 1993; Banks & Shin, 1981; Ladson-Billings, 1995) in terms of power and social structure in broader society.

This line of intervention-focused research has had much to offer the field in terms of developing a knowledge based on the processes underlying minority underachievement in school and has begun to clarify the local production of culture and learning in classrooms. However, such approaches have been largely specific to particular racial groups, and at times have lost sight of the macrodynamics behind the microprocesses and power and social structure in these interactions. As such, many of these theories and interventions are targeted toward specific racial or ethnic groups—raising issues of applicability in current multicultural schools and society. Additionally, a focus on individual groups and classrooms can obscure both the role and responsibility of broader society in addressing inequity. This point raises an interesting issue in the understanding of the relation between culture, learning, and development for minority students. On one hand, we must understand the local environment where learning takes place and know how culture plays out in these settings. On the other hand, we cannot lose sight of how such settings make up and are intertwined by broader societal forces.

These accounts of complex, microlevel interactions between the cognitive, discursive, and interpersonal patterns broadly attributed to different ethnic and racial groups and the sets of norms and conventions that operate in schooling environments begin to reveal the local production of race and culture as they emerge in the context of everyday school activity. While focused on microgenetic development, these accounts are limited in their consideration of culture as a property of groups of individuals and, as such, provide little understanding of the role of cultural practices in individual functioning within these groups. At the same time, in their aim to attend to the particulars of classroom activity, at times they discount (or ignore) broader issues of power and social structure that shape both what goes on in the classroom and how it is perceived by teachers and students.

#### Power and Social Structure

Others have argued that individual classrooms and students are the wrong place to look for explanations of or to redress minority student underachievement. They contend that such underachievement is the product of a society that differentially structures access to resources. Critical theorists (Darder, 1991; Freire, 1970, 1998; Giroux, 1989, 1997; MacLaren, 1994) and others argue that minority school failure is not at all a surprising phenomenon, nor is it one that can be addressed without significant change in societal and school organization.

Many of these scholars are sociologists, and their work focuses on describing the process by which social inequalities based on class and race get reproduced in successive generations. For instance, Bowles and Gintis (1977) compared upper and lower class schools, pointing out the many ways that these very different schools prepare students to take their place in society. While upper class schools stress autonomy, self-expression, and leadership, lower class schools are structured to foster compliance and the following of orders. This theory argues that indeed it is the goal of schooling to maintain social class relations and the locus of power in society.

Other approaches have taken the role of culture in the social reproduction process seriously, adding a level of complexity to analyses of class, race, and schooling. Perhaps one of the most often cited theory from this perspective is that of Bourdieu (Bourdieu, 1986; Bourdieu & Passeron, 1977; Bourdieu, Passeron, & Saint Martin, 1994). Bourdieu contends that social reproduction is not a direct process whereby individuals are channeled by society directly into jobs sorted by social class, but rather that such reproduction is mediated by culture. In his view, individuals, by virtue of the ways of being and doing in which they were socialized, possess a particular kind of cultural and symbolic capital that is differentially valued by the broader society and its institutions. From this perspective, some kinds of cultural capital (that associated with middle and upper class culture) leverage success in school, while other kinds (associated with the lower class) tend to lead to school failure and reproduction of working class status. Hence, school failure is created by societies (through the distribution of cultural capital) and not by individual strengths and shortcomings.

Similarly, McDermott and Varenne (1995) view failure as not something children achieve, but rather as something that schools and cultures achieve in a grade-based system. They point out that in such a system there can be no success of some without the failure of others. McDermott and others (McQuillan, 1998) have offered empirical support for how success and failure are locally constituted and unequally

distributed on the basis of race and class (Kozol, 1991; Rose, 1989). In some ways, these theories are reminiscent of earlier approaches that lay school failure at the feet of oppression (i.e., Hannerz, 1970; Howard & Scott, 1981; Pettigrew, 1964; Stack, 1974), though the focus is much more on the dynamics of differential access, rather than on how oppression creates individual traits or adaptations that prohibit success.

West (2000) challenges the idea of "cultural reproduction" and argues that the core issue is not solely culture, but it is the decline of the American industrial economy and the concomitant "cultural decay." By cultural decay, West refers to the critical role of American capitalism in the demoralization of the people and in the abundance of sexual and violent images in order to stimulate consumption. His analyses bring to the fore the need to consider not simply race in understanding inequities across society (including education), but also class (West, 1987). West makes the point that the working poor Blacks were much more affected by the economic decline of the early 1980s than were middle-class Blacks. Further, he argues that Black working poor and Black middle class often have different agendas, different lenses, and a differential set of resources upon which to draw. His treatment of the role of class challenges simplified treatments of race and social structure.

Hancock (2004, 2005) has described the confluence of multiple aspects of identity/social memberships on racialized experience as *intersectionality*. She argues that the presence of multiple marginalized communities creates a compound effect that is more than the sum of the parts. For instance, being simultaneously Black, female, and poor creates a multiplicity of obstacles. This consideration of *multiple* aspects of marginality adds important nuances to our considerations of race, culture, and social reproduction.

Other researchers have emphasized the active nature of cultural reproduction. Willis (1977), in his classic study of the lads and the earoles, explored the way in which the young men he studied actively contributed to their own class reproduction through the choices they made. However, this work emphasized that while culture is often reproduced, it can also be transformed as individuals actively respond to the society as they receive it. This perspective introduces the critical role of agency in the production of culture and points to the potential of schools as the sites for such transformation.

For many, a construct that captures the complex nature of schools as institutions of both reproduction and transformation is resistance. Critical pedagogists have made the argument that while schools are often places where lower class and minority students are subjected to practices and attitudes that can reinforce their second-class status, they are also places where resistance to such hegemony can be collectively harnessed and made transformative. They encourage teachers to develop the critical perspectives in students and hence foster their ability to subvert existing power relations. In this regard, Delpit (1988, 1995) has written provocatively about how teachers can encourage such critical understandings in students by making explicit the way that language and communication styles signal cultural capital (although she does not use this term). In doing so, she contends that teachers can offer students the tools upon which they can draw to be successful, without disparaging their home cultures.

It should be noted that from a critical pedagogy perspective, the role of ideology in both social control and the transformation of schools and existing power relations

is vital. Ideologies are viewed as having the potential to both limit and enable human action (Giroux, 1997). They are material and constituted in meaning and are another means by which social structure is reproduced and is constructed in human minds, actions, and interactions.

Critical theories of race, which include Critical Race Theory (CRT), feminist/postmodern theories, counternarratives, and so forth, have a long history of addressing issues of race, power, language, gender, identity, class, and social structure in relation to the opportunities and legal rights of individuals and groups (Delgado & Stefancic, 2001). These theories attend to the ideologies and discourses that function to perpetuate and re-create institutional hierarchies and biases that marginalize people of color and the poor.

Critical perspectives can help educational researchers situate their research within broader social and political systems to raise awareness about the position of their frameworks and methods with respect to minority and disenfranchised populations (Ladson-Billings & Tate, 2005). Broadening awareness within the field of educational research about *whose* stories are being heard (and whose are not) and how these stories are embedded in a system of power that treats dominant structures and practices as normative can help make race and racialized experience explicit in educational contexts (Martin, in press-c). Further, analyses of access to educational opportunities and identities within a framework that pays attention to how opportunities and identities are negotiated, adapted, and contested by individuals as they are positioned and position themselves with respect to histories of engagement in different communities bring subtle processes of power and privilege to the fore.

Analyses that focus on the critical role of social structure and power to define educational contexts for children have been compelling, both in their attention to the role of broader societal constraints, and in the potential for transformation. An important issue is the extent to which structuralist theories incorporate an account of individual agency within these predetermined societal structures. This is important to consider because it has implications for both how we understand the school learning and achievement of minority students and how we propose to address existing achievement gaps. However, clearly, these accounts of power and social structure need to be considered within a treatment of local practices, for it is in these local contexts that broader forces, such as social structure and power distribution, play out. One shortcoming of this body of work is the tendency to make overarching claims about entire racial or social class groups and the related tendency to essentialize the characteristics of such groups and to fail to adequately recognize or explain variations within groups.

### Multilevel Models

Still others have argued (and some of the previously cited theorists have implied) that underachievement of minority children in school is a product of *both* the microprocesses of cultural interaction in school settings and the macrostructure of societal and racial politics. Ogbu (1990; Ogbu & Simons, 1998) treads this middle ground by employing a macroanalytic perspective of the social and political forces that have impacted the relation between minority groups and mainstream American culture as well as a microlevel concern with the psychological and behavioral adaptation of minority groups to that oppression. Ogbu argues that the resistance of involuntary minority students (as opposed to voluntary minority or immigrant students) against

perceived and real oppression by the mainstream culture leads to cultural "habits" and stances that can undermine minority student performance in school. In this model, Ogbu acknowledges the important role of societal structures and histories of oppression in impacting school achievement, but also points to the way individuals and communities respond to these histories and conditions and develop identities in relation to them that make school achievement problematic.

A similar set of assumptions underlies the work of Spencer (1999), who asserts that the stratification that causes African Americans to experience marginal status is at the root of African American underperformance in school. In these models, the mechanism between culture and school achievement is the psychological adaptation of the cultural group to oppression, though one weakness has been their failure to offer substantial evidence of these psychological adaptations empirically (Trueba, 1988). Another criticism has been that although Ogbu's theory does address the difference between minority groups (i.e., African American and West Indian), it does not explain intragroup differences in achievement among minority students of the same ethnic group.

It is precisely this concern with within-group differences that researchers like Clark (1983) and Martin (2000; in press-a) have addressed. Martin argues that individual agency is key in understanding the mathematical achievement of African American students. In his view, while the sociocultural context and historical legacy of African Americans and poverty had a profound influence on middle-school students' academic achievement, individual agency on the part of students mediates the role of culture and the legacy of oppression. Similarly, Clark focuses on the role of family support in fostering the agency of African American students in school, demonstrating that students who had families who stayed intimately involved in their schooling, who maintained control of their social networks, and who had a close, supportive authoritative relationship with their students attained higher levels of achievement. As such, both of these studies point to significant variation among African American students and their families; such findings reinforce the important balance between global and local processes in school achievement and learning and raise issues with theories that obscure the differentiation within minority groups.

Other theorists also posit models that incorporate both societal structures outside of the school and cultural conflict within the school as jointly influencing the school achievement of minority children. These include the work of D'Amato (1996), who argues (drawing on Bourdieu) that resistance is at the heart of understanding the dynamics of minority students in schools. In his formulation, resistance occurs in all schooling environments, but takes on special properties and is often more intense among minority students, because minority students often have neither structural (i.e., the instrumental value of schooling to reach other ends) nor situational (i.e., relationships within the schooling environment) reasons for engaging in school. Further, the decision of many students to disengage or resist schooling practices because of the politics of schooling should not be viewed as students' inability to see beyond the maladaptive cultural patterns of their culture, but rather as a purposeful and courageous protest.

Similarly, Erickson (1996) argues that resistance is a core construct in understanding school failure. For Erickson, resistance occurs as students reject a stigmatized racial identity that has been structured for them by society and enacted by their teachers and peers. Hence, this identity is created in reaction to both labor market

conditions and communication processes within schools. From this perspective, resistance is related to issues of social structure and power, yet plays out in local classroom settings (Delpit, 1988; K. D. Gutiérrez et al., 1995; R. Gutiérrez, 2002). Such approaches obviously bear close resemblance to social reproduction theory, yet attend to how such processes get played out with local classroom contexts.

The research of Claude Steele in social psychology also examines the intersection of macrolevel sociocultural patterns and individual academic functioning (Steele, 1997), focusing on the cultural minority's perception of bias in achievement situations. Steele and colleagues argue that one inhibitor of school performance is *stereotype threat;* the perceived threat of racial stereotypes being imposed can depress academic performance, through their anxiety-inducing effects on thought and problem solving. Studies of the racial or social class bias of teachers also share the view that ideas and values of the broader socially stratified society get played out in the microculture of the classroom. For example, Rist (1973) and Jordan-Irvine (1990) argue that the internalized bias of teachers and counselors (both minority and white) against poor and minority students is an important factor in shaping the racial bias in schools. However, this research varies in the extent to which students are viewed as being recipients of racially related or class-related bias of teachers or participants in cultural interaction with teachers.

Overall, research on race, culture, and learning spans a wide range of theoretical perspectives and concerns. Many factors in the learning and achievement of minority children have been delineated, from social structure and direct prejudice, to cultural responses to oppression and cultural mismatch, to family support and individual agency. However, much of this research has tended to tell the story of minority school achievement in small pieces. Indeed, many of these pieces are the very elements that a sociocultural theory would highlight, including social structure and history and socialization in social activities with key adults, agency, and goals. While many small pieces do eventually make up a whole (and certainly no one study can create the whole at once), there has been little in the way of developing a comprehensive conceptualization or theoretical model, which would offer some guidelines as to how the pieces fit together. In this regard, Ogbu's theory was quite progressive, though it too has failed to distinguish well between race and culture and to prove the existence of behaviors as cultural adaptations to oppression at the psychological level.

While research on culture and social structure in school learning and achievement has developed important ideas for understanding learning and achievement issues for minority students, many questions remain.

- How do multiple levels of culture, development, and power shape each other?
- How do the hierarchies of power and biases fueled by structures and perspectives in society become reproduced in the local activities of the classroom?
- How do the norms and conventions of the classroom reflect, either implicitly or explicitly, these structures and perspectives?
- And how are these norms and conventions transacted by students and teachers at the level of immediate classroom interaction?

Part of the challenge in addressing these questions is the complexity of the human experience, the multiple interacting factors that are brought to bear on learning and schooling as well as the difficulty of studying such phenomena. How does one capture the various elements that comprise the complexity without losing a sense of the whole? At the crux of this complexity is the relation between race and culture.

#### Relation Between Race and Culture

Perhaps one of the most important ideas to arise out of this prior work is the need to better understand the dynamics that exist between race and culture. On one hand, much of the research on race has merged the two constructs, treating race and culture as if they were one and the same. From this perspective, the characteristics and adaptations of all people from a racial group are viewed as being homogenous—that is, in these models race determines culture. On the other hand, other research (particularly sociocultural theory) has tended to completely divorce the two and focus only on culture in its most apolitical sense. Missing from this research is an analysis of power and how various cultural practices and discourses, which index (rather than comprise) particular ethnic and racial communities, are typically marginalized with respect to those of the dominant White culture.

There has been an inkling of this type of analysis, particularly in the more recent research from the microethnographic tradition, that attempts to do justice to the complex process by which culture and identity are created in moments of culture and activity in the context of institutions. From this perspective, culture is not race, but is informed by racial and ethnic categories. Indeed, recent work in anthropology reflects this view and contends that while race is pervasive and unchangeable, culture is produced in cultural settings between people. As such, it is argued that it is important to study how race informs the production of culture in the moment, and not be resigned to the use of static racial categories to talk about culture (Eisenhart, 2001).

In the final section of this article, we argue that sociocultural theories offer some tools that support the maintenance of this distinction between race and culture. We also suggest looking outside of learning theories to the literature on critical theories of race to assist sociocultural researchers in their treatments of race and power. But first, we describe some basic ideas and constructs from sociocultural theories of learning and development.

## **Sociocultural Theory**

Sociocultural theories are rooted in the work of Lev Vygotsky, a soviet psychologist of the early 1900s, and articulate a view of culture not only as a system of meaning carried across generations, but also as constantly being created and recreated in local contexts. Sociocultural perspectives examine the roles of social and cultural processes as mediators of human activity and thought. In contrast to many psychological perspectives that focus on human cognition and behavior at the individual level, sociocultural theories locate the fundamental unit of analysis for the examination of human behavior as activity, or cultural practices. This notion of activity offers a unit of analysis that affords an understanding of the complex intertwining of the individual and the cultural in development. In general, sociocultural theories incorporate several central themes (Cole, 1998). We focus on four core ideas:

 Development occurs on multiple levels simultaneously (moment-to-moment changes in learning and development; change over months and years; and change over historical and phylogenetic time).

- 2. Cultural practices are an important unit of analysis for understanding developmental processes.
- Cultural tools and artifacts (including ideational or symbolic artifacts) fundamentally influence learning and development and are mediators of psychological processes.
- 4. Social others and social interactional processes play a key role in learning and development, and learning is constituted by changing relations in these social relationships and the social world.

Following, we elaborate on each of these core principles, drawing on the work of many scholars in the field. We argue that these principles are important ideas that could potentially be used to offer fresh perspectives on issues of race, culture, and schooling.

# Development on Multiple Levels

We begin with the idea that development occurs simultaneously on multiple levels. Vygotsky articulates four planes of development: microgenetic development, ontogenetic development, cultural/historical change, and evolutionary development. The individual constitutes the two most specific levels of development: microgenetic (moment-to-moment) changes in the course of activity and ontogenetic changes over the life course. The next level of development occurs in cultures and society and includes changes in social structure and cultural norms (i.e., historical change). At the most general level, phyogenetic or evolutionary change occurs as the human species adapts to its evolutionary context. These multiple levels of development are not separate—rather they constitute and mutually inform one another (Cole, 1996a).

This concern with multiple embedded levels of development has been elaborated in contemporary sociocultural theories. For instance, Rogoff (1995), focusing on development within cultural practices, provides analytical tools and processes to discern activity at different levels. She proposes three planes of analysis—participatory appropriation, guided participation, and apprenticeship—corresponding to three aspects of social interaction—personal, interpersonal, and community/institutional (Rogoff, 1995). The personal plane involves individual cognition, emotion, behavior, values, and beliefs. The *interpersonal* or *social plane* includes communication, role performances, dialogue, cooperation, conflict, assistance, and interactions with important social others. In educational research this is often addressed in studies of teaching/learning interactions, such as a study of cooperative learning groups. The community or institutional plane involves shared history, languages, rules, values, beliefs, and identities. While these processes can be understood as distinct levels, in activity, they influence and mediate each other and combine into a whole. This work focuses primarily on Vygotsky's first three levels and explores how these planes of development create one another in cultural activity.

In more recent longitudinal research in New Guinea, Saxe has elaborated on the role of history and culture change on developmental processes (Saxe & Esmonde, 2005). Saxe's work has been concerned with understanding local mathematics practices and how the social and cultural organization of these practices influences cognitive development and the mathematical understanding that occurs within them. He has explored how social and historical shifts change the nature of the cultural

activities within which people do mathematics (Saxe, 2002). This work draws clear links between historical and cultural shifts in the organization of activities and changes in cognitive activity and problem solving.

#### Cultural Practices

One way in which scholars have attempted to bring the idea of multiple levels of development to life in research has been through the use of cultural practices as a unit of analysis that embeds several developmental planes simultaneously. Cultural practices or activities have provided a useful analytical focus for many concerned with the study of culture, learning, and development (Cole, 1996a; Lave, 1988; Rogoff, 2003; Saxe, 1999; Saxe, Gearhart, & Seltzer, 1999; Wenger, 1998; Wertsch, 1998). This idea, borrowed from the anthropological tradition, has much purchase. In psychology, activities as a focus for psychological analysis were articulated by Leontiev, a student of Vygotsky. Activity theorists elaborated and built on his ideas and articulated the process by which goal-directed activity unfolds and gives rise to cognition. As such, this theory has provided a guide to the ways in which activity mediates human thought and development, and the different levels of analysis that can be considered in the study of activity.

Activity theory presupposes that all activity is goal directed. These goals, or objectives, manifest differently depending on the level of analysis; taking the activity as the fundamental unit of analysis, these objectives appear as motives. Moving to an individual or group level, motives become directly aligned with conscious goals. Although often explicit, these goals generally emerge over the course of the activity. Finally, at the most concrete level, these objectives emerge as operations, or units of action that are shaped by the conditions in which they occur (Leontiev & Elkonine, 1979). Foundational to activity theory is the principle of mediation—that is, that thought is mediated by the cultural tools that one uses.

Recent incarnations of activity theory are a little more complex, but better account for the broader positioning of activities and the division of labor between them. Engeström, Miettinen, and Punamaki (1999) added a second layer to the classic triangle of mediation to account for the importance of community norms, roles, and the distribution of tasks. In doing so, Engeström et al. argued that activity is a theoretical lens as well as an object of study and elaborated a model that focuses on local activity while also considering the broader macrocontexts within which it is embedded.

Situated cognition theories also highlight the importance of understanding the organization and structure of local activities as contexts for learning and development. Research from this perspective illustrates that people's cognitive and problem-solving abilities are often context bound (Ceci & Roazzi, 1994; Nunes, Schliemann, & Carraher, 1993; Rogoff & Lave, 1984) and raises questions about the frequency of transfer. This theory presupposes that learning and knowledge are situated within the context, culture, and activity in which they develop, and that, in general, learning and activity cannot be reduced into separate processes (Kirshner & Whitson, 1997). Activity, then, mediates learning and vice versa. And activity (and therefore learning) is also mediated by social, historical, and cultural factors that shape the context in which it occurs.

# Cultural Tools and Artifacts and Their Mediation

A third core principle of sociocultural theories of learning and development is the idea that the cultural tools and artifacts that people encounter as they participate in the activities of daily life are critical to the nature of the learning and development that arises. In Vygotsky's work, these tools and artifacts come to infuse development because we use them as means with which to accomplish thought, such that the tools and artifacts themselves become intertwined with the nature of the thought. Because these tools and artifacts are culturally produced and represent cultural innovations and changes, as we internalize their use, our thought is undeniably cultural in nature.

Wertsch (1991, 1998) also takes cultural tools, or as he calls them, *mediational means*, to be central in the cultural-developmental process. For Wertsch, mediated action is a process by which agents (or individuals) and their cultural tools (i.e., language, artifacts, symbols, etc.) interact through goal-directed action. He argues that individuals and the tools that they use to achieve their goals exist in an irreducible tension: one cannot be separated from the other.

One major mediational means for Wertsch (as well as for Vygotsky and many others) is language. In order to understand how social institutions such as race, social class, and gender mediate social activity, Wertsch finds it useful to adopt M. M. Bahktin's ideas of voice and dialogicity (Bakhtin, 1981, 1986). The concept of voice, or language, is prominent in both Vygotsky's and Bahktin's work. Vygotsky nominated language as the primary form of semiotic mediation bridging interpsychological (social) and intrapsychological (individual) processes. Language, then, serves a dual role in human functioning: it is a communication tool, and it mediates human mental action. Bahktin's notion of voice is similar, yet it emphasizes the social nature of language as perpetually situated within a sociocultural context and dialogic in nature. The words we use reflect the location of our views within particular social, historical, and power structures. In addition, dialogicity presupposes that utterances spoken both explicitly or in the mind are always situated in a dialogue with other social others.

Other schools of thought have focused on other tools. In Saxe's Emergent Goals Framework (Saxe, 1999), he highlights the role of tools, artifacts, and conventions in influencing the goals that emerge for participants in the course of practice. From this perspective, artifacts are cultural forms that get used as cognitive forms as individuals engage in goal-directed behavior in the context of cultural practices. Further, individuals also "respecialize" cognitive forms acquired in one practice to meet functional needs across contexts. Thus, an object of mediational means, such as long division learned in a mathematics class, can be transformed to serve an immediate social goal such as figuring out how many CDs a child can buy with his budget. This "form-function" shift, in Saxe's terminology, is critical to understanding how cognitive development becomes fundamentally intertwined with culture.

The importance of tools and artifacts in structuring the environments within which children learn and develop has been echoed in much of the research on learning and development from a cultural perspective (Rogoff, 2003). These tools and artifacts are integral components of cultural settings and get used by individuals as they participate in goal-directed activities.

## Role of Social Others and Learning as Shifts in Social Relations

There is a large body of work that bears on the important role of social others in development and learning. Very early work in the field explored the role of peers on learning outcomes (Phelps & Damon, 1989). These findings supported the Vygotskian notion of cognition as in part consisting of an interpersonal process. For Vygotsky, the teacher and more capable others played key roles in the way individuals participate in activity (Vygotsky, 1978). These ideas gave rise to the popular construct of scaffolding (Bliss, Askew, & Mcrae, 1996; Benson, 1997; Goos, 1999; Wood, Bruner, & Ross, 1976), which describes the process by which assistance from social others can increase one's level of performance and understanding.

One version of the idea that social others are integral to learning and cognition is that of distributed cognition. Developed by Edward Hutchins in the late 1980s, the theory of distributed cognition recognizes human cognition as a socially distributed phenomenon. This perspective maintains that cognition is distributed across individuals, artifacts, external and internal representations, and other interactional mediators in a cognitive system. Research from this perspective has explored how learning happens and how goals get accomplished on work teams such as ship navigation (Hutchins, 1995), cockpits, air traffic control, and software teams. In these contexts, knowledge emerges and work gets done as the components of the system interact; neither the knowledge nor work outcomes can be explained solely in terms of the individuals that make up this system (Hutchins, 1995, 1997).

Other work has examined how social others in activities serve to organize and break down activities in ways that makes participation in them more accessible to novices. For instance, Nasir (2000, 2004) has argued that in the cultural activity of dominoes, expert players offer assistance and support to novices, in ways that maintain the novices' ability to participate competently in the activity. Similarly, the research on apprenticeship clearly highlights the critical role of social others in structuring learning opportunities (Lave & Wenger, 1991).

An extension of the idea that learning and development are deeply influenced by others in a setting is the conceptualization of learning and development at the individual level as being profoundly linked to changing social relations; learning is constituted by shifting relations between the individuals and the communities of practices in which they participate. As such, sociocultural theories do not view learning as purely an internal individual process, but as a social process.

For example, Lave & Wenger's (1991) theory of legitimate peripheral participation holds that all learning is situated in social practices—practices that comprise everyday communities of practice. As individuals engage in these communities, they learn to use productively the cultural tools and practices that are expertly modeled by the central participants, or old-timers. As newcomers become adept at the use of tools and social practices located in these communities, they move from peripheral to central membership, moving toward expert status. As the primarily unit of analysis for learning, participation implies a negotiated process of learning that does not depend solely on individual cognitive structures and is heavily shaped by the shifting roles and relationships as newcomers get incorporated into a community of practice.

Research on situated cognition led to the theory of "cognitive apprenticeships" as theorists drew on the apprenticeship model found in anthropology and cultural psychology in viewing learning in schools as a process of enculturation (A. L. Brown, 1994; A. L. Brown & Campione, 1994; A. L. Brown & Palincsar, 1986; J. S. Brown, Collins, & Duguid, 1989). This perspective emphasizes the need for authentic learning through students' engagement in productive work. During a cognitive apprenticeship, teachers and peers strive to create learning settings that offer novices new ways of participating and thus supporting learning.

Related to notions of learning as shifts in roles and social relationships in cultural practices has been the characterization of learning and development as progress along identity trajectories (Greeno, 1997; Wenger, 1998). In other words, because learning involves changes in social roles and relationships, it also involves shifts in individual conceptions of who a person is and how he or she fits into the social world (Packer & Goicoechea, 2000). These changing identities are viewed as being part and parcel of the learning process.

### Summary

As we have seen, sociocultural theory is characterized by its focus on (1) multiple intertwined levels of analysis, (2) cultural practices as a unit of analysis, (3) the role of artifacts and tools, and (4) social others in the learning process and learning as shifts in social relationships—all concerns grounded in the early work of Vygotsky. In general, this perspective holds that culture unfolds at multiple levels of development, which appear intertwined in activity. More specifically, it considers individual engagement in activity as being shaped by sociocultural processes acting simultaneously on different planes of development, by the cultural tools and forms that individuals employ to achieve their goals, and by their interactions with each other. Learning, then, as an aspect of cultural activity, is profoundly influenced by this joint social enterprise where transformation of activity occurs within the interplay of global and local processes.

Although the view of culture put forth in sociocultural accounts certainly facilitates analyses of everyday learning and development from a cultural perspective, it rarely addresses the political nature of culture. Nor has it explicitly fostered ways to understand relations between race and learning or the learning of marginalized minority students in schools. Some have considered this apolitical interpretation of Vygotskian theory to be inaccurate and have argued that an interpretation of Vygotsky that divorces the theory from the political world fails to do justice to its revolutionary spirit and the formidable Marxist influence on Vygotsky's work (Nuemann & Holzman, 1999).

One reason for the limited accounts of race and power in this research may be that we still have some unpacking to do. Race as a social construction can be considered as being constituted by a loosely defined organization of cultural practices that play out differently in different contexts. At the same time, it can also be treated as an identity that individuals negotiate with respect to the social categories that society offers them. Both conceptions are complex to understand and to investigate. Conceptually, when race is examined through the lens of activity (as advocated in K. D. Gutiérrez & Rogoff, 2003), individuals may be observed being positioned with more or less power, or practices being emphasized or marginalized. It is difficult, though, to discern exactly how these moves imply race. Methodologically, it is yet problematic to

garner the evidence to support claims that aspects of an activity index broaden cultural practices and, further, that these practices are associated with particular racial or ethnic groups.

Whether or not Vygotsky intended his theories to address issues of race or class is certainly debatable, particularly in light of his and Luria's experiments in Asia, where they portrayed a clear hierarchy from primitive to civilized thought, in which more sophisticated thought was equated to Western analyses and tasks (Cole, 1996a; Wertsch, 1998). Nonetheless, we concur with Nuemann and Holzman that the potential for sociocultural theory to be used in this way does exist.

## Sociocultural Perspectives on Race, Culture, and Learning

In this section we consider the specific aspects of sociocultural theory that might afford a complex (and potentially more comprehensive) treatment of culture, race, and learning processes. Specifically, we argue for the potential role of the four previously mentioned aspects of sociocultural theory: multiple levels of analysis, a focus on cultural practices, learning as a shift in social relations (related to identity), and a perspective that includes the way tools and artifacts (including ideas) come to have an impact on students.

For each component we consider how it has the potential to deepen our understanding of race, culture, and schooling. To do this, we revisit the four questions posed earlier, each of which can be informed by one of the four aspects of sociocultural theory.

# Multiple Levels of Analysis

In our overview of the research on race, culture, and learning, we proposed that this body of work has examined both the macro- and microlevel processes that play into differential access to learning and development for minority students. We have also suggested that until recently this research has treated these different levels of analysis and views on human development as separate or as related, but largely distinct. Sociocultural analyses have gradually begun to examine more closely the interplay of (1) global processes around racial and social categories that act to carve out local contexts of activity, and (2) individual or group goal-directed behavior in perpetuating and reorganizing these categories. That is, multilevel analyses consider both social structures and how individuals act in concert with them to perpetuate and reinvent processes. One important advantage of sociocultural theory in addressing issues of race, culture, and learning is that it offers a way to incorporate multiple views of analysis in conceptualizing complex social and cultural processes and spaces. Race, as a social phenomenon, can then be theorized at multiple levels of activity and development as well.

This perspective begins to address the concerns raised in the first question that we posed: *How do culture, development, and power shape each other at multiple levels?* A key component of a consideration of culture, race, and power at multiple levels of analysis has been a focus on the relation between change at the historical/societal level and change at the ontogenetic and microgenetic levels. Sociocultural theories conceptualize changes on these two levels to be intimately connected and mutually informing. One important component of historical change (related to school achievement issues) is shifts in the status of and interaction between racial groups. Historical changes in society embed shifts in relations between groups,

including moves toward and away from exploitation, which have direct and indirect effects on individual ontogenetic and microgenetic development.

Social structure theories are useful to an examination of shifts in development at the historical/cultural level; sociocultural theory pushes us to consider how these shifts are linked to individual changes and growth—including opportunity and life paths. How is it that individual trajectories of learning and development move through, are infused by, and influence cultural and social spaces, and how are these spaces woven together by the different strands of development? Using multiple levels of analysis, we can begin to explore the way that race plays out in local contexts of cultural activity—ways that subsequently further instantiate (or transform) the meaning of race.

A central idea in linking individual trajectories and broader social structures is that of history. We have access to sets of roles and resources that are necessarily constrained (though not defined) by the history of individuals-in-practice within these contexts. Sociocultural theorists view these histories as critical to understanding how the sociopolitical arrangements of power and access in which individuals were situated came to pervade the practices they established. This is not to imply that contexts are static or handed down, but that things within them (e.g., practices, values, identities, beliefs, artifacts, etc.) are constantly indexing their own development.

This overlaps with ideas about the importance of local environments in producing and reproducing (and transforming) global relations. As individuals participate in local contexts, implicit in these practices are perspectives and values, which privilege particular forms of social and cultural capital. As individuals draw on these new practices to participate in other contexts, they can carry over these views. On the other hand, individuals can also transform aspects of the practices in which they participate, rendering them quite different for uptake by others.

## Cultural Practices as a Unit of Analysis

One important way that sociocultural theories have operationalized a concern for multiple, intertwining levels of culture, development, and power has been to foreground cultural activities as the unit of analysis, affording a focus on cultural norms and expectations, artifacts and conventions, and community-level organization. This shift reflects an emerging perspective of understanding people and their cultures as comprising one another in a dynamic interaction. We argue that this focus is useful for understanding issues of race, culture, and learning and for addressing our second question: *How do the hierarchies of power and biases fueled by structures and perspectives in society become reproduced in the local activities of the classroom?* 

A focus on cultural practices as a unit of analysis refocuses analyses of culture in terms of the activities, interactions, and social others that define daily life, but also allows for a consideration of race—how race affects access to these practices, how patterns of practices are carried out, how a collective spirit informs and guides these practices (and cultural capital), and how certain kinds of experiences leverage access to other practices (Schwartz & Nasir, 2004).

The cultural practice perspective has the potential to reconceptualize race, not as inherent characteristics, but as communities built up over a history of participation in overlapping sets of practices. Gutiérrez and Rogoff argue for such a perspective

on culture and race in a recent article (K. D. Gutiérrez & Rogoff, 2003), where they reconceptualize patterns in "learning styles" across racial groups as being located in repertoires of practice, arguing that one way to describe what appears as coherent within groups is to rely on descriptions of patterns of activities. These learning styles carry with them implicit issues of power and are used to position students with respect to knowledge and power. In this way, race then becomes a part of a person's experience—it is socioculturally situated and constituted instead of serving as the defining characteristic. This viewpoint offers a potential resolution to the problem of how we view race and culture vis-à-vis one another, while simultaneously emphasizing the important relation between them. A focus on cultural practices could offer insight into the role of the local environment in producing social and racial stratification, while also keeping salient the possibility for transformation.

Such a perspective would challenge conventional ideas about classroom practices as being culture-free (e.g., mathematics). Classroom practices necessarily embody cultural practices because they are created by individuals to sustain, encourage, and inhibit particular discursive and interactional patterns (Hand, 2003). Sociocultural theory may be useful in beginning to trace links between classroom practice, cultural practice, and repertoires of participation among ethnic groups.

## Mediation of Tools and Artifacts (Especially Ideational Artifacts)

Not only do the activities themselves embed values and perspectives, but the tools, artifacts, and norms within practices also reflect broader structures and perspectives. We argue that a concern for tools and artifacts (particularly ideational artifacts) offers support for addressing the third question: *How do the norms and conventions of the classroom reflect, either implicitly or explicitly, these structures and perspectives?* 

Clearly, activity, thought, and learning are mediated by the cultural tools present in the activity. While prior work has focused primarily on concrete and symbolic tools and artifacts, or a culturally evolved mathematical system, artifacts can also be culturally held ideas (some have termed these ideational artifacts) that act as objects in that they structure human interaction and activity. For instance, culturally held ideas about gender can act as constraints in both schooling and home environments, to restrict participation in some activities (e.g., sports) and encourage participation in others (e.g., cooking). In another example from a recent article (Nadir, 2004), cultural practices within a school embed and perpetuate institutionally held cultural ideas about the nature of children and the nature of learning. These ideational artifacts are useful for understanding how activities get organized and who has access to particular kinds of participation and positioning within them.

These ideational artifacts carry meaning across time in that they are derived from a cultural past, are projected into a cultural future, and are used to structure activity in the present (Cole, 1996a; Nasir, 2004). One relevant example of such ideational artifacts is ideas about race, which are frequently employed in daily and institutional practices to constrain the participation of some and enable the participation of others. The power of these ideational artifacts to influence individual thinking and performance is illustrated in Steele's ground-breaking work on stereotype threat (Steele, 1997).

Symbolic tools and artifacts can also be used purposefully for transformation and the support of new learning. In Lee's (1995) research with African American stu-

dents in high-school English classrooms in Chicago, she demonstrates that the traditionally African American language form of signifying can be leveraged to support students learning of literary analysis. This is a powerful example of how artifacts and symbol systems can mediate thinking, learning, and access to educational resources.

# Learning as Shifts in Social Relations

The consideration of joint social activity as encompassed by cultural spaces, where processes of race and culture get played out at multiple levels, means that a shift in the activity represents new arrangements for individuals with respect to each other and the nature of the activity. As individuals form and re-form themselves and their relations within and across communities, they gain (and lose) access to different sets of practices and roles, which according to the sociocultural perspective, constitutes new learning. Learning, then, is deeply embedded in the joint work of individuals as they negotiate and manage their participation, and the participation of others, in and across cultural practices.

This perspective on learning as changes in positioning in social, cultural, and classroom practices raises our fourth question: *How are these norms and conventions transacted by students and teachers at the level of immediate classroom interaction?* Existing work on race, culture, and learning views social relations as important mediators of learning: teachers may have preconceptions of race that guide differential expectations for and interactions with their students; students themselves may have conceptions of themselves as learners and as members of a racial group where identification with one prevents or hinders identification with the other (Martin, in press-b). In this case, their lack of learning may in fact be an act of resistance to the social world. While these accounts have provided useful insight into the salient role that race can play in the opportunities for learning made available to students, they do not elaborate on how these opportunities for learning develop and are transacted by teachers and students in their daily classroom activity. In other words, we know little about how the tension between agency and structure of practice is managed by students and teachers.

One way that scholars have begun to address this potential tension has been through a focus on students' identities as learners. Scholars such as Jo Boaler, Jim Greeno, Danny Martin, Na'ilah Nasir, and Etienne Wenger have come to believe that identity is a critical mediator of learning and that how students view themselves as learners can greatly influence how they participate in educational activities and settings and, conversely, how teachers and institutions participate can come to greatly influence how students view themselves as learners. Such a perspective argues that learning is not only about taking on new knowledge structures, but it is about personal transformation—about becoming.

This treatment of identity differs significantly from typical approaches in that it views identity as being located both in the individual and in the social world. As individuals come to participate in a cultural practice, they negotiate an identity that is part what they have come to view as consistent about themselves in their lives, part what they perceive to be available to them in a practice, and part how they are perceived by social others. This conceptualization of identity—as enduring and shifting over time—explicates how aspects of our interactions persist across settings and may be deeply entrenched in a set of cultural practices that are strongly maintained

by a particular racial or ethnic group, yet at the same time can be open to redefinition and transformation as we meet with new social and cultural arrangements.

This consideration of identity is also grounded in a desire to understand people's everyday practices. The roles made available to individuals as they engage in cultural activity function to open up new possible ways of being; thus people tend to choose their activities to forge a perspective of themselves as becoming. Conversely, people tend to distance themselves from activities that they perceive to be misaligned with, or indeed inhibit, the trajectory of personhood that they hope to construct. What this view of a practice-linked identity illustrates is how individuals acting with agency come to participate in cultural practices in ways that are specific (Nasir & Hand, 2006).

A related point is that the activities that people seek out are generally embedded in broader constellations of activity framed by particular social, cultural, and political spaces. These constellations maintain well-worn paths of development that are more easily traversed because of overlaps in practices. This is not to imply that these paths are fixed and isolated, but rather that they afford and constrain particular trajectories of activity. The identities and practices that an individual is exposed to and negotiates along a trajectory of activity support an array of imagined trajectories of becoming. A more constrained trajectory results in less variety in imagined identities. Thus, while the process of selecting activities and shaping behavior to motivate one's own development is flexible to some degree, the perceived choices of what can be done and how one should do it are necessarily constrained by a history of participation. In this way, identity links treatments of learning to issues of power and positional identities. Learning is about not only shifts in an outside cultural world, but also shifts in one's conception of one's relation to that world.

## **Summary**

We have outlined several ways that four main tenets from the sociocultural perspective and perspectives from critical theories of race can be utilized as lenses on the complex interaction between race, culture, and learning to inform our understanding of differential school achievement. Consistent across these tenets and perspectives is the notion that racial and social processes play a critical role in shaping everyday cultural activity by affording particular practices, trajectories, artifacts, ideas, and identities for individuals to negotiate, reject, and transform toward their goal of positive social and intellectual development. These processes have different implications for groups of students in constraining and affording their participation in and across activities because they are inherently situated in broader contexts of power and access within society. While the research that exists on race, culture, and learning has illuminated important links between social and cultural processes, racial identity, and academic achievement, it has failed to conjoin these links into a multidimensional, multilayered portrait of human activity. In our effort to superimpose sociocultural theory onto conceptual, methodological, and practical issues surrounding race, culture, and learning, we hope to have begun to remove some of the complexity inherent in the task we face as researchers concerned with these issues.

However, we point out that many researchers who study race and school achievement have drawn upon ideas similar to those present in sociocultural theory, though without explicitly referencing this theoretical orientation. Overlaps in these two

lines of research reside in their attention to processes of learning from multiple levels and the focus on behavior (or activity) and participants' perceptions of it. Both also have yet to offer sufficient explanations for issues of power and access, perhaps in part because of the limitations in our current ability to operationalize and draw on evidence to examine these constructs in practice. Cobb and Hodge (2002) argue that these issues are intimately linked to positioning of cultural capital—both in what gets counted and in how one is afforded access to it.

What we have attempted to do in this article is pose a set of conceptual tools from the sociocultural perspective that may enhance our examination of the multifaceted and multileveled relations between the histories of certain groups of people with respect to each other, the way that these histories shape and are shaped by activity played out at local levels, and the impact of these processes on individual learning and identity. These conceptual tools—multiple levels of development, cultural practices, tools and artifacts, and social interaction—shift our analyses of race, class, and learning away from models of reproduction and essentialism and toward more elaborated and complex views on the processes of race and culture in human activity.

#### Notes

<sup>1</sup>By learning, we mean three things: (1) deep knowledge of concepts and ideas from important subject matter disciplines, (2) distal measures of learning such as test scores and grades, and (3) increasingly central participation in local communities of practice. Thus, our review incorporates work that views learning from anyone of these perspectives. Most often, research on race, culture, and learning relies on distal measures of learning, and this view of learning is consequently overrepresented in this article.

<sup>2</sup>Through out this article, we use the term "minority" student to refer to nondominant students in American schools. Lee (2003) has criticized the term "minority" as an inaccurate term (there are many places where the "minorities" are the majority), and we concur that it is somewhat imprecise. However, we use this term in this article because it is in line with the broader research community and for the sake of simplicity.

<sup>3</sup>It is important to clarify that it is not the position of the authors that all minority students are underachieving. Clearly, many minority students reach the highest levels of academic and life success despite minority status, racial discrimination, structural inequalities, and a host of other challenges.

#### References

- Au, K. (1980). Participation structures in a reading lesson with Hawaiian children: An analysis of a culturally appropriate instructional event. *Anthropology & Education Quarterly*, 2, 91–115.
- Bakhtin, M. M. (1981). The dialogic imagination: Four essays by M. M. Bakhtin. Austin: University of Texas Press.
- Bakhtin, M. M. (1986). Speech genres and other late essays (V. W. McGee, Trans.). Austin: University of Texas Press.
- Banks, J. A. (1979). *Multiethnic multicultural.*, *multicultural*] *teacher education: Conceptual*, *historical*, *and ideological issues*. Rosslyn, VA: National Clearinghouse for Bilingual Education.
- Banks, J. A. (1993). The canon debate, knowledge construction and multicultural education. *Educational Researcher*, 22, 4–14.
- Banks, J. A., & McGee, C. A. (Eds.). (2001). *Handbook of research on multicultural education*. San Francisco, CA: Jossey-Bass.

- Banks, J. A., & Shin, B. J. (Eds.). (1981). *Education in the 80's: Multiethnic education*. Washington, DC: National Education Association.
- Baratz, S. S., & Baratz, J. C. (1970). Early childhood intervention: The social science base of institutional racism. *Harvard Educational Review*, 40(1), 29–50.
- Benson, B. K. (1997). Scaffolding: Coming to terms. *The English Journal*, 86(7), 126–127.
- Bernstein, B. (1975). Class, codes and control. Volume 3: Towards a theory of educational transmissions. London: Routledge.
- Bliss, J., Askew, M., & Macrae, S. (1996). Effective teaching and learning: Scaffolding revisited. *Oxford Review of Education*, 22(1), 37–61.
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York: Greenwood Press.
- Bourdieu, P., & Passeron, J. C. (1977). *Reproduction in education, society and culture*. Beverly Hills, CA: Sage.
- Bourdieu, P., Passeron, J. C., & Saint Martin, M. D. (1994). *Academic discourse: Linguistic misunderstanding and professorial power*. Cambridge, UK: Polity Press.
- Bowles, S., & Gintis, H. (1977). Schooling in capitalist America: Educational reform and the contradictions of economic life. New York: Basic Books.
- Boykin, W. A., & Cunningham, R. T. (2001). The effects of movement expressiveness in story content and learning context on the analogical reasoning performance of african american children. *Journal of Negro Education*, 70(1–2), 72–83.
- Brown, A. L. (1994). The advancement of learning. *Educational Researcher*, 23(8), 4–12.
- Brown, A. L., & Campione, J. C. (1994). Guided discovery in a community of learners. In K. McGilly (Ed.), *Classroom lessons: Integrating cognitive theory and class-room practice*. Cambridge, MA: MIT Press. Pp 229–170.
- Brown, A. L., & Palincsar, A. S. (1986). *Guided, cooperative learning and individual knowledge acquisition*. Technical Report No. 372. Illinois University Center for the Study of Reading, Urbana.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18, 32–42.
- Cazden, C. B., & Leggett, E. L. (1981). Culturally responsive education: A response to lau remedies II. In H. Trueba, G. Guthrie and K. Au (Eds.) Culture and the Bilingual Classroom: Studies in classroom ethnography (pp 69–86). Rowle, MA: Newbury House.
- Ceci, S. J., & Roazzi, A. (1994). The effects of context on cognition: Postcards from Brazil. In R. J. Sternberg & R. K. Wagner (Eds.), *Mind in context: Interactionist perspectives on human intelligence* (Vol. xii, pp. 74–101). New York: Cambridge University Press.
- Clark, R., M. (1983). Family life and school achievement. Chicago: The University of Chicago Press.
- Cobb, P., & Hodge, L. L. (2002). A relational perspective on issues of cultural diversity and equity as they play out in the mathematics classroom. *Mathematical Thinking and Learning*, 4(2–3), 249–284.
- Cohen, R. (1969). Conceptual styles, culture conflict, and nonverbal tests of intelligence. *American Anthropologist*, 71, 828–859.
- Cole, M. (1996a). *Cultural psychology: A once and future discipline*. Cambridge, MA: Belknap Press.
- Cole, M. (1996b). Interacting minds in a life-span perspective: A cultural-historical approach to culture and cognitive development. In P. Baltes & U. Staudinger (Eds.), *Interactive minds* (pp. 59–87). New York: Cambridge University Press.

- Cole, M. (1998). Can cultural psychology help us think about diversity? *Mind, Culture, and Activity*, 5(4), 291–304.
- Cole, M., & Bruner, J. (1971). Cultural differences and inferences about psychological processes. *American Psychologist*, 26(10), 867–876.
- Coll, C. G., Crnic, K., Lamberty, G., & Wasik, B. H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67(5), 1891–1941.
- Cummins, J. (1986). Empowering minority students: A framework for intervention. *Harvard Educational Review*, 56(1), 18–36.
- D'Amato, J. (1996). Resistance and compliance in minority classrooms. In E. Jacob & C. Jordan (Eds.), *Minority education: Anthropological perspectives* (pp. 181–208). Norwood, NJ: Ablex.
- Darder, A. (1991). Culture and power in the classroom. Westport, CT: Greenview.
- Delgado, R., & Stefancic, J. (2001). *Critical race theory: An introduction*. New York: New York University Press.
- Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom.* New York: The New Press.
- Delpit, L. D. (1988). The silenced dialogue: Power and pedagogy in educating other people's children. *Harvard Educational Review*, 58(3), 280–298.
- Dhand, H. (1988). Bias in social studies textbooks: New research findings. *History and Social Science Teacher*, 24(1), 23, 25–27.
- Eisenhart, M. (2001). Changing conceptions of culture and ethnographic methodology: Recent thematic shifts and their implications for research on teaching. In V. Richardson (Ed.), *Handbook on research on teaching* (4th ed., pp. 209–225). Washington, DC: American Educational Research Association.
- Engeström, Y., Miettinen, R., & Punamaki, R.-L. (1999). *Perspectives on activity theory*. Cambridge, UK: Cambridge University Press.
- Erickson, F. (1996). Transformation and school success: The politics and culture of educational achievement. In E. Jacob & C. Jordon (Eds.), *Minority education: Anthropological perspectives* (Vol. 27–52). Norwood, NJ: Ablex.
- Foley, D. (1991). Reconsidering anthropological explanations of ethnic school failure. *Anthropology & Education Quarterly*, 22, 60–94.
- Freire, P. (1970). *Pedagogy of the oppressed* (M. B. Ramos, Trans.). New York: Herder and Herder.
- Freire, P. (1998). *Politics and education* (P. L. Wong, Trans.). Los Angeles: UCLA Latin American Center Publications.
- Gay, G. (2000). Culturally responsive teaching. New York: Teachers College Press.
- Gibson, M. A. (1976). Approaches to multi-cultural education in the United States: Some concepts and assumptions. *Anthropology and Education Quarterly*, 7(4), 7–18.
- Giroux, H. A. (1989). Schooling for democracy: Critical pedagogy in the modern age. London: Routledge.
- Giroux, H. A. (1997). *Pedagogy and the politics of hope: Theory, culture, and schooling: A critical reader.* Boulder, CO: Westview Press.
- Goldenberg, C., & Gallimore, R. (1991). Local knowledge, research knowledge, and educational change: A case study of early spanish reading improvement. *Educational Researcher*, 20(8), 2–14.
- Goos, M. (1999). Scaffolds for learning: A sociocultural approach to reforming mathematics teaching and teacher education. *Mathematics Teacher Education and Development*, 1, 4–21.
- Grant, C. A., & Sleeter, C. E. (2003). Turning on learning: Five approaches for multicultural teaching plans for race, class, gender, and disability (3rd ed.). New York: Wiley.

- Greeno, J. G. (1997). On claims that answer the wrong questions. *Educational Researcher*, 26(1), 5–17.
- Gutiérrez, K. D., Baquedano-López, P., & Tejada, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the third space. *Mind, Culture, and Activity*, 6(4), 286–303.
- Gutiérrez, K. D., Larson, J., Krueter, B. (1995). Cultural tensions in the scripted classroom: The value of the subjugated perspective. *Urban Education*, 29(4), 410–442.
- Gutiérrez, K. D., & Rogoff, B. (2003). Cultural ways of learning: Individual traits or repertoires of practice. *Educational Researcher*, 32(5), 19–25.
- Gutiérrez, R. (2002). Enabling the practice of mathematics teachers in context: Toward a new equity research agenda. *Mathematical Thinking and Learning*, 4(2–3), 145–187.
- Gutstein, E. (2005). Reading and writing the world with mathematics: Toward a pedagogy for social justice. New York: Routledge Falmer.
- Hale, B. J. (1986). *Black children: Their roots, culture, and learning styles*. Provo, UT: Brigham-Young University Press.
- Hancock, A. M. (2005). Du Bois and the scientific study of race: W. E. B. Du Bois intellectual forefather of intersectionality? *Souls* 7(3–4), 74–84.
- Hancock, A. M. (2004). The politics of disgust: The public identity of the welfare queen. New York: New York University.
- Hand, V. (2003). Reframing participation: Meaningful mathematical activity in diverse classrooms. Unpublished dissertation, Stanford University, Stanford, CA.
- Hannerz, U. (1970). The significance of soul. In L. Rainwater (Ed.), *Soul*. Chicago: Aldine.
- Hess, R. D., & Shipman, V. C. (1965). Early experience and the socialization of cognitive modes in children. *Child Development*, *36*(4), 869–886.
- Howard, A., & Scott, R. (1981). The study of minority groups in complex societies. In R. Munroe, R. Monroe, & B. Whiting (Eds.), *Handbook of cross-cultural human development* (pp. 113–151). New York: Garland STPM Press.
- Hutchins, E. (1995). Cognition in the wild. Cambridge, MA: MIT Press.
- Hutchins, E. (1997). Mediation and automatization. In M. Cole, Y. Engeström, & O. Vasquez (Eds.), *Mind, culture, and activity: Seminal papers from the Laboratory of Comparative Human Cognition* (pp. 338–353). Cambridge, UK: Cambridge University Press.
- Jarrett, R. (1997). Resilience among low-income African American youth: An ethnographic perspective. *Ethos*, 25(2), 218–229.
- Jensen, A. (1969). How much can we boost IQ and scholastic achievement? *Harvard Educational Review*, 39(1), 1–123.
- Jordan-Irvine, J. (1990). Black students and school failure: Policies, practices, & prescriptions. New York: Greenwood.
- Keller, S. (1970). *The American lower class family*. Albany: New York State Division for Youth.
- Kirshner, D., & Whitson, J. (1997). Situated cognition: Social, semiotic, and psychological perspectives. Mahwah, NJ: Erlbaum.
- Kozol, J. (1991). Savage inequalities: Children in America's schools. New York: Trumpet Club.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), 465–491.
- Ladson-Billings, G., & Tate, W. F. I. V. (2005). Toward a critical theory of education. *Teachers College Record*, *97*, 47–68.
- Lave, J. (1988). *Cognitive in practice: Mind, mathematics, and culture in everyday life.* Cambridge, UK: Cambridge University Press.
- Lave, J., & Wenger, E. (1991). Situated learning and legitimate peripheral participation. Cambridge, UK: Cambridge University Press.

- Lee, C. D. (2003). Why we need to rethink race and ethnicity in educational research. *Educational Researcher*, 32 (5), 3–5.
- Lee, C. D. (1995). Signifying as a scaffold for literary interpretation. *Journal of Black Psychology*, 21(4), 357–381.
- Lee, C. D., & Slaughter-Defoe, D. T. (1995). *Historical and Sociocultural Influences on African American education*. In J. A. Banks & C. A. M. Banks (Eds.), Handbook of Research on Multicultural Education (pp. 348–371). New York: Macmillan.
- Leontiev, A. N., & Elkonine, D. B. (1979). The child's right to education and the development of knowledge of child psychology. *Quarterly Review of Education*, 9(2), 125–132.
- Lewis, O. (1969). Review of C. Valentine's, Culture and poverty: A critique and counter proposals. Current Anthropology, 10, 189–192.
- MacLaren, P. (1994). Life in schools. White Plains, NY: Longman.
- Martin, D. (2000). Mathematics success and failure among African-American youth. Mahwah, NJ: Erlbaum.
- Martin, D. (in press-a). Mathematics learning and participation as racialized forms of experience: African American parents speak on the struggle for mathematics literacy. *Mathematical Thinking and Learning*.
- Martin, D. (in press-b). Mathematics learning and participation in African American context: The co-construction of identity in two intersecting realms of experience. In N. S. Nasir & P. Cobb (Eds.), *Diversity, equity, and access to mathematical ideas*. New York: Teachers College Press.
- Martin, D. (in press-c). Researching race in mathematics education.
- McDermott, R., & Varenne, H. (1995). Culture as disability. *Anthropology & Education Quarterly*, 26(3), 324–348.
- McQuillan, P. (1998). *Educational opportunity in an American high school*. Albany: State University of New York.
- Mehan, H. (1979). *Learning lessons: Social organization in the classroom.* Cambridge, MA: Harvard University Press.
- Moll, L., & Diaz, S. (1987). Change as the goal of educational research. *Anthropology & Education Quarterly*, 18(4), 300–335.
- Nasir, N. S. (2000). Points ain't everything: Emergent goals and average and percent understanding in the play of basketball among African American students. *Anthropology & Education Quarterly*, *31*, 283–305.
- Nasir, N. S. (2004). "Halal-ing" the child: Reframing identities of resistance in an urban Muslim school. *Harvard Educational Review*, 74(2), 153–174.
- Nasir, N. S., & Hand, V. (2006). From the court to the classroom: Managing identities as learners in basketball and classroom mathematics. Manuscript submitted for publication, Stanford University.
- Nieto, S. (1996). Affirming diversity: The sociopolitical context of multicultural education. White Plains, NY: Longman.
- Nuemann, F., & Holzman, L. (1999). *Lev Vygotsky: Revolutionary scientist*. New York: Routledge.
- Nunes, T., Schliemann, A. D., & Carraher, D. W. (1993). Street mathematics and school mathematics. Cambridge, UK: Cambridge University Press.
- Ogbu, J. U. (1990). Minority education in comparative perspective. *Journal of Negro Education*, 59(1), 45–55.
- Ogbu, J. U., & Simons, H. D. (1998). Voluntary and involuntary minorities: A cultural-ecological theory of school performance with some implications for education understanding cultural diversity and learning. *Anthropology & Education Quarterly*, 29(2), 155–188.
- Packer, M., & Goicoechea, J. (2000). Sociocultural and constructivist theories of learning: Ontology, not just epistemology. *Educational Psychologist*, 35(4), 227–241.

- Pettigrew, T. (1964). Profile of the American Negro. Princeton, NJ: Van Nostrand.
- Phelps, E., & Damon, W. (1989). Problem solving with equals: Peer collaboration as a context for learning mathematics and spatial concepts. *Journal of Educational Psychology*, 81(4), 639–646.
- Ramirez, M., & Castenada, A. (1974). Cultural democracy, biocognitive development, and education. New York: Academic Press.
- Richards, G. (1997). Race, racism, and psychology: A reflexive history. London, UK: Routledge.
- Rist, R. (1973). *The urban school: A factory for failure: A study of education in American society*. Cambridge, MA: MIT Press.
- Rogoff, B. (1990). Apprenticeship in thinking: Cognitive development in social context. Oxford, UK: Oxford University Press.
- Rogoff, B. (1995). Observing sociocultural activity on three planes: Participatory appropriation, guided participation, and apprenticeship. In J. V. Wertsch, P. del Rio, & A. Alvarez (Eds.), *Sociocultural studies of the mind.* (Pp 139–164). Cambridge, UK: Cambridge University Press.
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford, UK: Oxford University Press.
- Rogoff, B., & Lave, J. (Eds.). (1984). Everyday cognition: Its development in social context. Cambridge, MA: Harvard University Press.
- Rose, M. (1989). Lives on the boundary: The struggles and achievements of America's underprepared. New York: Free Press.
- Saxe, G. (2002). Children's developing mathematics in collective practices: A framework for analysis. *Journal of the Learning Sciences*, 11(2–3), 275–300.
- Saxe, G. B. (1999). Cognition, development, and cultural practices. New Directions for Child and Adolescent Development, 83, 19–35.
- Saxe, G. B., Gearhart, M., & Seltzer, M. (1999). Relations between classroom practices and student learning in the domain of fractions. *Cognition and Instruction*, 17(1), 1–24.
- Saxe, G., & Esmonde, I. (2005). Studying cognition in flux: A historical treatment of Fu in the shifting structures of Oksapmin mathematics. *Mind, Culture, and Activity,* 12(3–4), 171–225.
- Schwartz, D. J., & Nasir, N. S. (2004). Transfer of learning. *Encyclopedia of Education* (2nd Ed.), 4, 1449–1452.
- Slaughter, C. (1969). Cognitive style: Some implications for curriculum and instructional practices among Negro children. *Journal of Negro Education*, 38(2), 105–111.
- Spencer, M. B. (1999). Social and cultural influences on school adjustment: The application of an identity-focused cultural ecological perspective. *Educational Psychologist*, *34*(1), 43–57.
- Stack, C. (1974). All our kin. New York: Harper & Row.
- Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, *52*(6), 613–629.
- Trueba, H. T. (1988). Culturally-based explanations of minority students' academic achievement. *Anthropology & Education Quarterly*, 19, 271–287.
- Valentine, C. (1968). *Culture and poverty: A critique and counter-proposals*. Chicago: University of Chicago Press.
- Varenne, H., & McDermott, R. (1998). Successful failure: The school America builds. Boulder, CO: Westview Press.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wenger, E. (1998). *Communities of practice: Leaning, meaning, and identity*. Cambridge, UK: Cambridge University Press.

Wertsch, J. V. (1991). A sociocultural approach to socially shared cognition. In L. B. Resnick, J. M. Levin, & S. Teasley, D. (Eds.), *Perspectives on socially shared cognition* (1st ed., pp. 85–100). Washington, DC: American Psychological Association.

Wertsch, J. V. (1998). Mind as action. New York: Oxford University Press.

West, C. (1987). Demystifying the new black conservatism. *Praxis International*, 7 (2), 143–151.

West, C. (2000). The Cornell West reader. New York: Basic Books.

Willis, P. (1977). Learning to labor. New York: Columbia University.

Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem-solving. *Journal of Child Psychology and Psychiatry*, 17, 89–100.

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