



## **Re-mediating Literacy: Culture, Difference, and Learning for Students from Non-dominant Communities**

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## **Abstract**

In this chapter, we examine notions of educational risk in the context of literacy theories and research. Deficit notions about the cognitive potential of individuals from nondominant<sup>1</sup> communities have persisted in social science inquiry, particularly where literacy is concerned. The intellectual trails of current conflicting ideas about literacy can be traced in part to theories about the role of literacy in society. For example, the great divide theories of literacy, sustained by a view of culture as social evolution and progress (Cole, 2005), attributed significant differences to the cognitive and cultural development of literate and nonliterate people and their communities (Goody, 1977, 1986, 1987; Goody and Watt, 1963; Havelock, 1963; Ong, 1982).<sup>2</sup> This literacy thesis held that there were “categorical differences in cognition and language as consequences of literacy” (Reder and Davila, 2005, p. 171)—differences marked by stark dualities used to characterize literate and nonliterate communities: writing versus orality, modern versus traditional, and educated versus uneducated, for example (Collins, 1995, p. 75). As Reder and Davila (2005) have noted, “literacy was presumed to have broad and ubiquitous consequences in such areas as: abstract versus context-dependent uses and genre of language; logical, critical, and scientific versus irrational modes of thought; analytical history versus myth; and so forth” (p. 171). These theories of literacy were challenged for their wide-ranging dichotomies that perpetuated the hierarchical differences between “types of societies, modes of thought, and uses of language” (p. 171) and reductive notions of culture and thought (Cole and Scribner, 1974, 1977).

# Re-mediating Literacy: Culture, Difference, and Learning for Students from Non-dominant Communities

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In this article, we examine notions of *educational risk* in the context of literacy theories and research. Deficit notions about the cognitive potential of individuals from non-dominant<sup>1</sup> communities have persisted in social science inquiry, particularly where literacy is concerned. The intellectual trails of current conflicting ideas about literacy can be traced, in part, to theories about the role of literacy in society. Sustained by a view of culture as social evolution and progress (Cole, 2005), the “Great Divide” theories of literacy, for example, attributed significant differences in the cognitive and cultural development of literate and non-literate people and their communities (Goody, 1977; 1986; 1987; Goody and Watt, 1963; Havelock, 1963; Ong, 1982).<sup>2</sup> This “literacy thesis” held that there were “categorical differences in cognition and language as consequences of literacy” (Reder and Davila, 2005, p.171)— differences marked by stark dualities used to characterize literate and non-literate communities: writing *versus* orality, modern *versus* traditional, and educated *versus* uneducated, for example (Collins, 1995, p. 75). As Reder and Davila (2005) have noted,

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<sup>1</sup> We use the term non-dominant rather than terms such as “minority,” “students of color,” etc. as the central issue is the power relations between those in power and those who, despite their growing census numbers, are not.

<sup>2</sup> Reder and Davila (2005) summarize the link between the societal-level Great-Divide theories (Levi-Strauss, 1962) and Great Divide theories in literacy (p. 171).

logical, critical, and scientific versus irrational modes of thought; analytical history versus myth; and so forth (p.171).

These theories of literacy were challenged for their wide-ranging dichotomies that perpetuated the hierarchical differences between “types of societies, modes of thought, and uses of language” (Reder and Davila, 2005, p. 171) and reductive notions of culture and thought (Cole and Scribner, 1974, 1977).

By the 1980s, the notion of the divide was challenged and new work represented the link between literacy and orality as a “continuum” (See Coulmans and Ehlich, 1983). As Street (1993) observed, the shift was more theoretical and researchers instead held to views of literacy as distinguished from orality and its consequences. Here the metaphors of a “divide” or a “continuum” suggest a deficit in people whose literacy practices differ from those of dominant groups, and are considered to be normative; and perpetuate, what Brian Street (2003) calls “autonomous” models of literacy organized around the assumption that literacy itself will have “effects” on other social and cognitive practices (p. 77). Of relevance to present views of difference and diversity, these dichotomies have helped to frame the way we view and study the literacies of non-dominant communities, its members, and practices.

In contrast to the ubiquitous autonomous model, other models like the ideological model advanced by New Literacy Studies (Street, 1984) reflects a culturally sensitive account of literacy that rejects static and homogenous views of the literacy practices of cultural communities. In contrast to views of literacy as a “technical and neutral [and autonomous] skill,” an ideological model posits that literacy is always embedded in social practices where the consequences of learning a particular literacy will be dependent on its context of development (Street, 2003, p. 2). Viewing literacy as a social practice exposes the longstanding beliefs that introducing literacy to the poor, the “culturally deprived,” and “illiterate” communities will enhance their cognitive skills, and improve the economic

conditions that created the illiteracy in the first place (Street, 2003, p. 1). We examine in this article the flaws in dominant stereotypes regarding literacy, views linked to autonomous conceptions of literacy and the deficit discourses, theories, and methods of inquiry that have accompanied such models.

## **A Functional Systems Approach to the Consequences of Literacy**

The Literacy Thesis and notions about the broad consequences of the effects of literacy are aligned with general notions of the expansive consequences of schooling challenged decades ago by Sylvia Scribner and Michael Cole (1973). Through cross-cultural research, Scribner and Cole rejected extant methods of inquiry that could only render deficit views of the communities under scrutiny. Scribner and Cole maintained that the methods and problems of school could not be attributed to the problems and technologies of everyday life or the home; rather, the focus should be on rethinking the social organization of education and its effects; as they wrote, “searching for specific ‘incapacities’ and ‘deficiencies’ are socially mischievous detours” (p. 558). There are differences in the way the capacities of individuals and their communities are brought to bear in various problem-solving situations; what is needed, then, is a functional analysis of the phenomenon under study at several levels of social organization (Scribner and Cole, 1973, p. 558). Drawing on cross-cultural research that documents how different educational experiences give rise to different functional learning systems (Bruner, 1964; 1966; Greenfield and Bruner, 1966; 1969; Luria, 1971), Scribner and Cole use the concept of the “functional learning system. . . to identify the varying ways basic capacities are integrated and brought into play for the purposes at hand” (p. 553). In literacy, this research highlighted the importance of studying literacy in the context of its use.

In examining the consequences of literacy and intellectual skills, Scribner and Cole (1973) were interested in whether differences in the social organization of education

promote differences in the organization of learning and thinking skills in the individual (p. 553). To distinguish dominant conceptions of literacy from others, these researchers employed the metaphors of “literacy as development” and “literacy as practice” (p. 449) to examine the nature of evidence considered crucial for developing hypotheses about literacy and in the procedures for relating evidence to theory. The object of this work was to advance an approach to literacy that “moves beyond generalities to a consideration of the organization and use of literacy in different social contexts” (p.450).

This cross-cultural work was instrumental in challenging notions about the affordances of literacy skills across settings and extant methods of studying literacy in non-dominant communities. Combining experimental psychological methods with ethnography to develop more robust explanations of the practices and uses of literacy by the Vai people in Liberia, Africa, Scribner and Cole focused on what they referred to as *literacy practices*—the unit of analysis to capture the sociocultural basis of literacy across the various activity systems of Vai life. A focus on practice was central to capturing the socially mediated nature of literacy *in situ* and the role of sociocultural history in the development of literacies. Their functional analysis of Vai practices found that “schooling and the acquisition of literacy are separate activities” and led them to reconsider the nature of literacy and its intellectual effects (Scribner and Cole, 1978, p. 448). They argue that their functional analysis emerging from the Vai research could be particularly useful for educational research in the U.S. An emerging key principle to be employed suggests that different literacy practices should be analyzed independently, as particular skills are promoted by particular literacy practices. Hence, it is essential to learn as much as possible about how literacy is practiced by the individual and community. A second related principle suggests that writing and reading activities in learning environments should be tailored to desired outcomes (Scribner and Cole, 1978).

Conceiving of literacy as a social practice has gained significant currency; this

view has been extended in research across literacy, education, and anthropological literatures, with qualitative and discourse analytic methods at the methodological forefront. For example, cross-cultural literacy studies organized around a cultural-historical perspective provided alternative conceptions of literacy and methods of study that called into question the deficit paradigms used to define the language and literacy practices of cultural communities (Greenfield, 1972; Heath, 1983; Ochs, 1988; Schieffelin and Ochs, 1986). In educational contexts, the “linguistic turn” in social science research brought about a realignment in educational research, as it introduced new criteria and models for classroom research that allowed for more “contextual explanations of literacy as a social practice” (Luke, 1992, p.107). Despite this shift, researchers from this tradition have remained largely “acritical” and have ignored how local and contextual issues relate to larger social issues—“the complex fabric of texts and discourses through which social representation and reproduction is effected” (Luke, 1992, p. 108). This omission leaves open the possibility of essentializing the literacy practices of individuals and communities.

In response to autonomous and acritical models of literacy that dominated the field up to the 1980s, New Literacy Studies (NLS) research (Gee, 1991; Street, 1984; 2003) focuses on producing more complex understandings of literacy, particularly in terms of power relations and the social nature of literacy activity, through ethnographies of literacy that document the situated literacy practices that constitute everyday life in particular ecologies (Barton, 2001; Barton and Hamilton, 1998; Barton, Hamilton, and Ivanic 2000; Street, 1984; 1993).

This social view of literacy requires detailed and in-depth accounts of the actual practices of people in different cultural settings to understand meanings of literacies across cultures and context (Street, 1993, p. 1). Situating people’s literacy practices in local and broader historical contexts provides complexity to and understanding of how repertoires of literacy practice come into being and necessarily challenge approaches to studying literacy

as an “autonomous” skill. For Brian Street, autonomous models of literacy “assume the technology of literacy itself had ‘impact.’ ” Instead, he argued, “it is the social construction of such technologies and their instantiation in specific social context that creates such ‘impact’” (p. 1). By linking local literacy practices with distal influences and practices, NLS studies address the problem of viewing global and dominant literacies as static, unchanging, and immune to the influences of local practices or the processes of hybridization resulting from local/global contact. For example, Kulick and Stroud’s (1993) study of the appropriation of new literacy practices brought by missionaries to New Guinea found that people “take hold” of the new practices and adapt them to local situations. These “local-global encounters around literacy, then, are always a new hybrid rather than a single essentialized version of the other” (Street 2004, p.4). Street goes on to say:

It is these hybrid literacy practices that NLS focuses upon rather than either romanticizing the local or conceding the dominant privileging of the supposed ‘global’. In terms of practical applications, it is the recognition of this hybridity that lies at the heart of an NLS approach to literacy acquisition regarding, for instance, the relationship between local literacy practices and those of the school (Street, 2004, p. 4).

The lens of hybridity has been central in capturing the consequences of intercultural exchange, including border and boundary crossing experienced by students from non-dominant communities. Increased transnational migration, new diasporic communities, and the proliferation of media technologies have resulted in a variety of intercultural activities in which a wide range of linguistic practices become available to members of non-dominant communities (Gutiérrez, 2008b). The resulting “linguistic bricolage” (Pavlenko and Blackledge, 2004, p. 32) reflects the ways the local and the global are always implicated in the everyday linguistic practices of non-dominant students

and, thus, challenges narrow and essentialized notions of students' linguistic repertoires. Documenting the hybrid language practices<sup>3</sup> students employ in school settings also calls into question dichotomous views of home/school, everyday and school-based literacies, and formal and informal practices that are not very useful in understanding students' literacy repertoires or the role language plays in learning processes (Gutiérrez, 2008; Gutiérrez, Baquedano-Lopez, and Tejeda, 1999; Gutiérrez and Lee, in press; Gutiérrez, Rymes, and Larson, 1995; Lee, 2007).

It is against this backdrop of cultural historical (Cole, 1996; Engeström, 1987; Rogoff, 2003) views of literacy that we examine how conceptions of literacy, risk, diversity, and difference have helped shape approaches to addressing differential performance in literacy learning for students from non-dominant communities. We also note how approaches to mediating students' literacy skills are imbued with discourses of difference and deficit views that undergird interventions for students "at risk." Such approaches are organized around varying views of how to remedy students' literacy skills, including fixing individual students and their home literacy practices to help ensure students' success in schools.

We explore how these deficit discourses and approaches to remediation have played an important role in education and, more specifically, how inexperienced readers and writers and the instruction they receive have been defined. We then describe approaches that are oriented toward more expansive views of literacy learning, particularly to members of non-dominant communities. We move to a discussion of how difference and risk have been conceived in educational research to then show how the history of their use is implicated in literacy studies.

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<sup>3</sup> Employing hybrid language practices refers to the strategic use of the complete linguistic toolkit in the service of learning.

## **The Discourses of Difference and Diversity**

Luis Moll (2001) has written that the most common educational response to diversity has been to eliminate it, and to practice what Joel Spring (1997) terms “deculturalization.” Or, as Michael Cole (1998) has put it, there are two ways to deal with diversity: to make it go away or to make use of it as a resource. Seeing diversity as a resource requires rethinking notions of culture and cultural communities and understanding what is truly cultural about what people do. Culture is “the artifact-saturated medium of human life” (Cole, 1998, p. 294). Cole and a growing number of researchers employ a cultural historical activity theoretical approach to organize new forms of educational activity in which diversity is a resource and heterogeneity is a design principle. Understanding the organizing principles of a cultural-historical activity theoretical approach (CHAT), then, is instructive to this review. Cole (1998) highlights key principles of a cultural-historical (CHAT) approach:

1. The basic premise of a CHAT approach is that human beings have the need and ability to mediate their interactions with each other and the nonhuman world through culture.
2. Culture is conceived of as human being’s ‘social inheritance.’ This social inheritance is embodied in artifacts, aspects of the environment that have been transformed by their participation in the successful goal-directed activities of prior generations. They have acquired value.
3. Artifacts, the constituents of culture, are simultaneously material and ideal/symbolic. They are materialized in the form of objects, words, rituals, and other cultural practices that mediate human life. Culture is exteriorized mind; mind is interiorized culture.
4. The ‘effective environments’ of mental life are taken to be the different practices or forms of activity the person engages in. Humans are created in

joint, mediated activity.

5. Consequently, it is by analyzing what people do in culturally organized activity, people-acting through mediational means in a context, that one comes to understand the process of being human. Mediation of action through culture in social interaction is the essential precondition for normal human development.
6. Because cultural mediation is a process occurring over time, a CHAT perspective emphasizes that it must be studied over time [and scale]. An implication of this view is that all human beings are fundamentally hybrids of the phylogenetic and the cultural.
7. In addition to focusing researchers on time and change, a CHAT perspective requires them to focus on the social/spatial ecology of the activities they study—the relation of activities to their institutional arrangements.
8. A CHAT perspective places a special emphasis on the principle of multivoicedness, the principle that every form of human interaction contains within it many different selves, arranged in multiple, overlapping, and often-contradictory ways. The contradictions, experienced by us as conflicts, are a major source of change. It is diversity all the way down.
9. The acid test of the theory is its success in guiding the construction of new, more humane forms of activity (p. 291-292).

This instrumental view of culture and its emphasis on the social and cultural organization of human activity have been fundamental to the study of people's practice, and has implications for how to design robust educational ecologies where diversity is viewed as a resource for expansive learning (Engeström, 1987). Cole has observed:

It is these patterned ways of co-confronting life with one's social group that serve as the 'units of selection' by which parts of the vast pool of cultural knowledge are made a part of the conduct of current actions. These units

are what I have referred to as *activities*, or as *cultural practices* (Cole, 1998, p. 274).

Using cultural practices as a unit of analysis challenges approaches in which culture is based on genetics or on deficit notions that view the practices of particular communities as homogenous, unchanging, and deviant from what is considered normative practice. One salient example was the “culture of poverty”—a metaphor influenced by Oscar Lewis (1966)—that attributed shortcomings of individuals and groups to deficits in their “culture” (Foley, 1997).

Human difference has been addressed historically as a problematic in our society where at times the very approaches designed to support students serve to reaffirm difference itself (Minow, 1990). The difference framework involves marshalling deficit-driven notions in which some populations of students are described, for example, as suffering from “cultural deprivation,” living in a “culture of poverty,” (Lewis, 1966), or being part of the “underclass”—constructs that suggest a fixed or comparative norm. Such theories are rooted in *deficit thinking*, a view that posits that students who fail in school do so because of internal deficits or deficiencies, rather than external attributions of school failure (Valencia, 1997, p. 2; Valencia and Solorzano, 1997). Drawing on Bernstein’s work, Hess and Shipman (1965) advanced the notion of “linguistic deprivation” to describe the language practices of working-class children.

Such discourses about children and youth “at-risk” are often organized around medical or pathological orientations that perpetuate negative or stereotypical assumptions about students who come to be known as the problem rather than a population of people who are experiencing problems in the educational system. In a stratified society, differences are never just differences; differences are always understood, defined, and ranked according to dominant cultural norms, values, and practices (Gutiérrez and Orellana, 2006, p. 506). One such strategy has been described as “blaming the victim,” a

practice in which policy and programs intended to change people, rather than the systems in which they participate. Understanding social problems in terms of individual deficiencies results in programs designed to correct deficiencies, and “the formula for action becomes extraordinarily simple: change the victim” (Ryan, 1971, p. 3). More than 30 years after Ryan’s analysis and despite some recognition of the structural failures of schools, new explanations for school failure still attribute failure to individuals and intertwine notions of innate or class and cultural deficiencies (Dabney, 1980, pp. 8-9).

### **Cultural-Mismatch Theory**

Cultural frameworks such as cultural-mismatch and cultural deprivation theories, (see Baratz and Baratz, 1970a; Baratz and Baratz, 1970b), have endured as explanations for the persistent underachievement of non-dominant groups, and have bolstered ideologies that conflate race/ethnicity with culture and social class to highlight the non-alignment in the cultural practices of home and school. Cultural mismatch theory (see Baratz and Baratz, 1970a; 1970b) locates its explanation of the underperformance or underachievement of non-dominant students in the non-alignment of the cultural practices of the home and school. The implicit comparison in mismatch home/school explanations is problematic in a number of ways. First, comparisons within this framework assume a static, monolithic family, cultural community in which there is little variance in the ways and extent to which individuals and groups participate in the valued practices of the community. The focus is on culture, the noun, in which what is cultural about people’s practices is assumed by virtue of people’s membership in a particular cultural community, rather than by people’s history of involvement in everyday practices. Without accounting for both the *regularity* and *variance* in cultural communities, it is difficult to account for change or to understand that change in the individual involves change in the practices in which the individual participates (Gutiérrez and Rogoff, 2003).

Further, grounding comparisons about student achievement and potential in analytical processes that rely on dichotomizing home and school, formal and informal learning, and school-based and everyday knowledge makes it more difficult to document students' repertoires of practice developed across the practices that constitute everyday life. The concept of repertoires of practice employed here is best understood as people's ways of engaging in activities stemming from participation in a range of cultural practices. This requires a shift in perspective from the discontinuities of home and school, for example, to documenting people's history of involvement in practices of the cultural community. Cultural differences from this perspective are attributed to the variation in individuals' involvement in common or shared practices of the particular cultural ecology (Gutiérrez and Correa-Chavez, 2006; Rogoff, 2003).

In educational contexts, Henry Trueba (1988) was instrumental in challenging culturally based explanations of minority students' academic achievement. In response to Ogbu's (1978) taxonomy of minority groups as "autonomous," "immigrant," or "castelike," Trueba's work advanced a framework that argued against the commonly used dichotomies, e.g., macro vs. micro, ethnographic and applied vs. theoretical (p. 270-271). For Trueba, Ogbu's study lacked sufficient empirical evidence for the scale of the claims he was making. Ogbu's grand theory of the underachievement of minority populations required an overgeneralization about distinct student populations; the resulting analysis was reductive and organized around classifications that did not account for the significant variance in cultural communities. Accordingly, Ogbu's theory lacked explanatory power of the success of many minority students.

In contrast to simplistic assimilationist frameworks that contribute to uncomplicated renderings of people and their communities, Trueba emphasized the centrality of the cultural community and context-specific influences. Sociohistorical theory was advanced as the conceptual lens for understanding and explaining successful learning

activities and individuals' participation therein. From a Vygotskian perspective, "academic failure or success of children is not a personal attribute of any child, nor a collective characteristic of any ethnic group, but a social phenomenon linked to historical and social conditions (Trueba, 1988, p.282)."

Trueba (2002) argued that immigrants necessarily develop multiple identities to negotiate new environments and their demands. Moreover, this flexibility to cross borders and boundaries and to address oppressive practices and economic constraints can be understood as a form of cultural capital, or "cultural wealth" (Yosso, 2005), including the double consciousness about which Du Bois (1903) wrote.

Trueba (1990) highlighted the role of culture in understanding students' literacy abilities in his studies of the literacy acquisition of Latino students in two California communities, San Diego and Ventura-Oxnard. Of importance to Trueba, assessing students' competence required observing students participating in literacy practices across a range of tasks and boundaries "in a larger social, psychological and historical context" (p. 2). Documenting the ethnography of communication and participation could reveal abilities, identities, and forms of competence that were otherwise often invisible:

Failure is not individual, so much as it is a failure of the sociocultural system which denies the child an opportunity for social intercourse, and thus for cognitive development. 'Academic failure' is a sociocultural phenomenon fully understandable only in its macrohistorical, economic, and political contexts (p. 5).

Although Trueba argued that children should participate in socioculturally appropriate contexts, his sociocultural approach helped to avoid generalized treatment of cultural communities that essentialized its members and their practices; instead, Trueba looked to the ways 'failure' is not an individual accomplishment.

To be sure, balancing the need to account for both the regularity and variance in culture and avoiding generalizations has been challenging; making culture a trait of the

individual or normalizing a cultural community against a dominant norm often has become the default explanation. This is particularly the case for students who do not fit the mold of what American schools consider “normal” (Deschenes, Cuban, and Tyack, 2001) and who are defined as underachieving, having defects in intellect or character, differences in cultural background, or practices that contribute to students’ underperformance; from this perspective, the causes of student “failure” can be located in the “mind and language of the individual” (Cuban and Tyack, 1988, p. 315), not in the ways learning and instruction are organized in institutional settings.

The attribution of failure to students’ individual traits has facilitated the practice of labeling students as ‘at-risk’ or ‘low-achievers’ (Cuban and Tyack, 1988; Hull, Rose, Fraser, and Castellano, 1991). As Stanley Zehm (1973) reported, in the early nineteenth century, a student who had difficulty in school was known as being a ‘dunce,’ ‘shirker,’ ‘loafer,’ ‘stupid,’ ‘depraved,’ incorrigible,’ or ‘vicious’ (Zehm, 1973). Of consequence, these labels attribute identities and suggest plans of intervention, as “contained in a name, either explicitly or implicitly, is both an explanation and a prescription” that reveal “a set of religious and moral convictions that placed responsibility for behavior and achievement in the sovereign individual” (Cuban and Tyack, 1988, p. 4; as cited in Hull et al., 1991, p. 311-312).

## **Rethinking Difference**

The social movements of the 1960s resulted in some shift in the discourse from individual to societal failure, although resulting economic explanations still relied on deficit if not pathological renderings of the cognitive abilities of non-dominant and working-class cultures (Cuban and Tyack, 1988, p. 312). Rose (2004) deftly addresses the politics of intelligence in *The Mind at Work*, where the issue of how views of intelligence are “classed” is elaborated in studies of the cognitive demands of everyday work. Drawing

on interdisciplinary approaches to study knowledge at work in a range of skilled labor professions, Rose detailed intelligence, learning, reasoning, problem-solving, and strategic use of skill in blue-collar and skilled work. In doing so, Rose takes apart notions of intelligence that make implicit judgments about working-class jobs. He develops rich accounts of the range of cognitive skills and strategies employed, from the importance of memory in waitressing, to the complex mathematical and diagnostic skills used by carpenters, electricians, plumbers, and hair stylists. In documenting the intelligence of working-class, skilled workers, Rose reveals the limitations of previous understandings of cognition-in-work, and through this analysis, he pushes us to think as well about the definition of intelligence that best befits a democracy.

Valencia and Pearl (1997) took a “prognosticatory” approach to examine the sustainability of deficit explanations and cultural deficiency arguments of the academic performance and potential of students from non-dominant communities. Their analyses relied on sociodemographic realities and trends; the consequences of the end of school desegregation; the ways the economy, politics, and education intermingle; and, as a result, an increasing anti-deficit thinking discourse. Given the current sociodemographic trends, deficit-thinking “is likely to gain momentum and currency” (Valencia and Pearl, 1997, p. 245), as high poverty schools are likely to remain primary sites of educational research and intervention but with relatively limited change.

This is the case in the field of literacy where deficit notions persist in the discourses, orienting frameworks, policies, and approaches that propose educational interventions supported by ideologies that depend on labeling and classifying students along a number of dimensions, principally by mental ability. A hallmark characteristic of interventions for students from non-dominant communities in under-resourced schools places the onus of change on the individual student (Artiles, 1998). Consider, for example, a language development program created and offered over 40 years ago designed to

address the ‘linguistic deprivation’ of poor African-American students (Bereiter and Engelman, 1966). This particular program emphasized rote and unchallenging verbal stimulation to address students’ “non-standard” language practices. Reductive literacy practices are increasingly commonplace in schools districts with large numbers of English Learners. One prevalent practice involves adopting curricula designed for special needs students or young students with demonstrated low abilities as intervention for students for whom English is not the home language. For example, in one large district with a sizeable number of English Learners, a reading intervention program, *High Point* (Schifini, Short, and Tinajero, 2001), intended for use with struggling readers in lower grades is used for high school English Learners (Martinez, Moreno, Morales and Hopkins, 2008).

American schools are driven by a preoccupation with identifying children in terms of categories that schools have constructed for them. What conceptions of learning and learners are at work in current programs for students from non-dominant communities? What to do and how to intervene instructionally have been central empirical questions in regards to students whose literacy practices deviate from normative views of what counts as literacy. The research and practice in special education has tended to reveal particular assumptions about human development and learning where notions of variability in those domains are arranged in normal distributions, and where points in such distributions come with particular identities, e.g., average, at risk, disabled, remedial, and gifted. This perspective highlights the view that risk is a probabilistic notion about future performance, a stark contrast to Cazden’s (1981) instructive notion of “performance before competence” in zones of possibility. We turn briefly to the field of special education—where this preoccupation with risk has been particularly evident—to help us rethink how difference is negotiated.

Artiles’ (1998) analysis of the deficit framework at work in the disproportionate representation of ethnic and linguistic minority students in special education points to the

field's inattention to the sociohistorical contexts of development of these students; historically, attention has focused on comparing and holding members of non-dominant communities against a normative view that can only render them as "different." As Minow (1990) noted, "difference is a comparative term" (p. 33) that highlights what students from non-dominant communities "are *not*" (emphasis in original) (Artiles, 1998). Here "sameness is sine qua non for equality...to be equal one must be the same, [and] to be different is to be unequal or even deviant" (Minow, 1990, p. 50, as cited in Artiles, 1998, p. 32).

For Artiles, notions of difference are undergirded by a set of assumptions and practices that sustain the normative backdrop against which students are measured. First, one assumption is that difference resides within the individual; that is, difference is a trait of the individual. Such assumptions are perpetuated, in part, by the "culturally bound perspective" of researchers who are neither self-conscious nor transparent about how their own sociocultural experiences contribute to how they understand and instantiate difference in the research process (Arzubiaga, Artiles, King, and Harris-Murri, 2008). At the same time, there is a tendency in research to ignore or minimize the standpoint of the person who is the object of scrutiny and investigation. Following Rogoff (1995), one means to disrupt the practices of difference analysis is to attend to the multiple and mutually constitutive frames of development: the individual, interpersonal, and institutional. In this way, the inter-relationship between the individual and cultural practices is made evident.

As McDermott, Goldman, and Varenne (2006) have argued, the practice of labeling and classifying students—a practice that has helped shape how educational researchers view students with disabilities and those with non-standard practices—is deeply implicated in special education in the U.S. Understanding students' practices and abilities in relation to their contexts of development counters the tendency to locate disability solely within individuals. The identity labels associated with disability become

more complex and problematic when “the ambiguities of racial, ethnic, and linguistic labels and the competitive and politically consequential agendas for which the labels are made relevant, and the ties between learning disabled (LD) and minority status become intertwined (McDermott, et al., 2006, p.12).

McDermott and his colleagues (2006) conducted a micro-analytic study of how the cultural practices of schools bestow labels on students that belie students’ actual skills. Their cultural approach “takes individuals seriously by focusing on their environments and rarely allows a single person to bear the undue burden of being targeted, accused, labeled, explained, worried about, remediated, or even rehabilitated without an account of the conditions in which he or she lives” (p. 13). While this cultural approach does not address the learning disability (LD) directly, it does account for the affordances and constraints of the discursive practices and social arrangements among people that result from the categories and contexts of Learning Disability.

In this particular study, “doing school”—that is doing the valued and recognized practices of schooling institutions—became a measure of success in ways that obfuscated the expertise and more appropriate measures of the schooling competence of two Latino and one African American students. “Doing school” involves a kind of “procedural display” in which students have learned how to display pseudo-learning without demonstrating competence of subject-matter knowledge (Bloome, Puro, and Theodorou, 1985). “Doing school” becomes an increasingly valued practice in educational efforts for students whose home language practices are “marked” in learning activities, while English, the unmarked language, is the normative language (Gutiérrez, 2008b).

How difference and disability are viewed, studied, and interpreted is relevant to the focus of this article insofar as it points to the need to counter the tendency to categorize and label students in ways that delimit the possibility of participating in particular learning arrangements and curricular opportunities, developing particular identities, and becoming

full members of robust and equitable learning ecologies. It calls into question quick-fix approaches that are organized around generic forms of support and generalized understandings of intelligence and competence (Rose, 2004). It also calls for more accurate assessment of the skills and practices of students who might otherwise be regarded as under-skilled. From this perspective, attention is shifted to how the social organization of American classrooms arranges for children to look like failures and then attributes their lack of success to racial, gender, language, or community membership.

Trent, Artiles, and Englert (1998) advance a similar argument about special education's long history of over-relying on deficit notions to develop models of instruction and intervention for special education students. These models, for example, have included "child saving" or social control theories that promote the classification and segregation of students: programs for immigrants, English Learners, and economically under-resourced students; in other words, the continued segregation of children "on the basis of race, ethnicity, and socioeconomic status" (p. 283). As in the work by McDermott and his colleagues (2006), Trent and his colleagues argue that the assumption that children are learning disabled allows people to systematically ignore or miss what children can actually accomplish beyond the boundaries defined by tests, labels, or a priori categories.

Social constructivist and sociocultural approaches to understanding and responding to disability are proposed as an alternative to behaviorist and cognitive models of disability in which the unit of analysis is often narrowly concentrated on the individual with the concomitant focus on deficits. Here, a sociocultural approach challenges longstanding views that disability is located within individuals and redirects the focus on developing situated notions of competence, ability, risk, disability, difference, and competence as culturally mediated.

The shift to a more ecological and situated understanding of learning looked to a different set of approaches that focused on: 1) apprenticeship in applied settings, 2) access

to empowering modes of discourse, 3) guided instruction that leads to self-regulated learning, and 4) understanding learning in cultural historical contexts. As Trent and his colleagues (1998) suggest, this contextualized approach to special education was particularly evident in literacy programs for children with mild disabilities, notably reciprocal teaching in literacy instruction (see Palinscar, 1984, 1986; Palinscar and Brown, 1989) and the Early Literacy Project (see Englert, Tarrant, Mariage, and Oser, 1994; Englert and Mariage, 1996; cited from Trent et al., 1998), that were organized around the principles listed above. In such programs, learning was organized in ways that employed what students knew to support the development of language and reading comprehension, rather than emphasizing deficit areas and remedial approaches to address those deficiencies.

## **Genres of Difference and the Language of Exclusion**

Paraphrasing McDermott and his colleagues (2006), culture is both enabling and constraining. This means that people must continually negotiate the affordances and constraints of the cultural practices of the ecology: those socially inherited, as well as newly formed practices. Discourses and ideologies play important mediating and consequential roles in cultural activity, including schooling activity. Too often claims about the success and failure of students from non-dominant communities are advanced without careful examination of the intellectual history of the constructs or descriptors employed, their history of use, or the consequences of their use on the target population. Consider the concepts of “cultural mismatch,” “cultural deprivation,” and “cultural deficit” advanced earlier in this article.

Rigorous, accurate, and useful empirical work involves a kind of theoretical integrity in which there is a principled congruence of constructs, methods, and orienting frameworks to explain a phenomenon. Gutiérrez and Orellana (2006) address the

commonplace approaches to conceptualizing and reporting research about students from non-dominant communities, specifically English Learners, that unwittingly create or reinforce deficit views of students and their communities. The authors point to a new genre that has emerged in the reporting of research that has come to characterize studies of difference, risk, and non-dominant student populations. One salient characteristic of this genre involves the ways in which the “problem” of non-dominant students is typically framed as a comparison with a “mainstream” norm. For example, the home literacy practices of English Learners often are compared with school-based practices in ways that can inadvertently construct home practices as deficit. The point of the comparison may be to contrast abilities, home practices, attitudes, or school achievement.

The issue here is that the constructs and descriptors that researchers use may reveal a set of assumptions about normativity that necessarily involves an implicit comparison of non-dominant and dominant (normative) communities, even when no empirical comparison has been conducted. From this perspective, instructional interventions are designed to “fix” what is broken or misaligned.

These notions of risk and difference have contributed to what Rose (1985) calls the “language of exclusion”—a discourse that helps to exclude from the academic community students who are in need of ‘repair,’ as well as to sustain an ideology of remediation that carries with it “the etymological wisps and traces of disease” (Rose, 1985, p.193). To extend the metaphor, the ideology of remediation places students “in scholastic quarantine until their disease can be diagnosed and remedied” (p. 193). We explore how this ideology is indexed in educational practices.

## **Traditional Responses to Difference: The Ideology and Practice of Remediation**

The ideology of remediation is instantiated in practices organized around particular

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beliefs about literacy and learning. In our own work (Gutiérrez, Hunter, and Arzubíaga, in press), we have examined approaches to remediation for students from non-dominant communities, many of whom are immigrants and English Learners. In the aggregate, students from non-dominant communities have been socialized to and through their participation in remedial courses in which they develop unproductive and weak strategies for literacy learning. In general, their literacy instruction is organized around individually accomplished tasks, with generic or minimal assistance, narrow forms of assessment, ‘homogeneous’ grouping, and an over-emphasis on basic skills with little connection to content or the practices of literacy—in short, on the technical dimensions of literacy. In the case of California, Arizona, and Massachusetts, remedial instruction is delivered in a language other than the home language. In these states we see how various ideologies of difference are indexed in pedagogies, practices, and assumptions about students from non-dominant communities who require new and additional forms of assistance to “do school.” This ideology of remediation has potent policy implications; as Rose (1985) suggests, “To be remedial is to be substandard, inadequate, and, because of the origins of the term, the inadequacy is metaphorically connected to disease and mental defect” (Rose, 1985, p.191).

The discourse of remediation has had a sustained presence in education literature, emerging as early as the 1930s when it first appeared in publications for teachers and educators (Breneman and Harlow, 1988; Rose, 1985). In the domain of literacy, Rose (1985) notes:

We still talk of writers as suffering from specifiable, locatable defects, deficits, and handicaps that can be localized, circumscribed, and remedied. Such talk reveals an atomistic, mechanistic-medical model of language that few contemporary students of the use of language, from educators to literary theorists, would support (p. 193).

Our biases and assumptions about difference are culturally organized; thus, our

proclivity to identify and label students who perform poorly or differently, to assign them to particular treatments, to assess them in particular ways, and to make a diagnosis about their future performance in schools and often beyond reveal habits of mind that index our nation's history with difference, primarily race and class differences.

Our nation's preoccupation with difference and its inclination to fix perceived deficiencies helps explain our focus in this review on the concept of *remediation*—a central construct used in the literature concerned with students in need of additional support in learning situations. The term “remediation,” derivative of the Latin *remedium*, is rooted in the discourse of medicine to describe the educational treatment that will “remedy” or “cure” students of the ailments that contribute to poor academic achievement and includes efforts to correct character flaws, to improve intellectual prowess, and to enhance cultural or social deficiencies (Gutiérrez, et al., in press; Hull, Rose, Fraser, and Castellano, 1991). From this perspective, remedial education must be understood in its historical context and as an instantiation of how educational and social ideologies are mutually informing (Golby and Gulliver, 1985).

Throughout our educational history, students who have not been successful in school have been categorized and labeled as incapable of learning, retained, placed in special classes, tracked into low-ability classes, and often ultimately expelled from school (Oakes, 1985). Even the seminal report, *A Nation at Risk* (1983) showed little awareness that schools as currently organized are much better calibrated to serve privileged groups than groups placed on the margin (Deschenes et al., 2001, p. 527). More recent reform efforts tend to perpetuate the same outcome for students from non-dominant communities:

Despite the beliefs of the standards movement, though, there will always be a number of children who do not or cannot accomplish what their schools expect them to accomplish. In this way, the standards movement has and will have something in common with every American educational movement of the past

century and a half: students who perform poorly and who fail (Deschenes et al., 2001, p. 526).

Students who cannot meet the standards make up what Deschenes and her colleagues (2001) refer to as the current “mismatch” group, distributed across one of four different mismatch profiles prevalent in schools:

- 1) Students who do poorly in school have character defects or are responsible for their own performance.
- 2) Families from certain cultural backgrounds prepare children poorly for school and give them little support for achievement...
- 3) The structure of the school system is insufficiently differentiated to fit the range of abilities and different destinies in life of its heterogeneous student body.
- 4) Children often fail academically because the culture of the school is so different from the cultural backgrounds of the communities they serve. (p. 535-537).

Reform efforts like the standards-based reforms require students to do more, longer, or to repeat a year of school, rather than questioning or challenging what actually contributes to student failure in the first place. Schools, according to Deschenes and her colleagues (2001), must learn to adapt, address inequities, educational and social, and engage in significant transformation.

## **Moving From Remediation to Re-mediation**

Remediation remains a central strategy in addressing the academic needs of students who differ from the dominant norm. In many of the current practices under *No Child Left Behind* (2001) remedial instruction is the default assistance strategy and the preferred pedagogical arrangement across the educational pipeline. Moreover, in an effort to provide alternative forms of instruction to mitigate underachievement, many remediation programs have employed moralistic or deficit-oriented perspectives to justify

their need and implementation. Grimm (1996) noted that when “underprepared” students showed up in college, for example, centers were created to “offer these unfamiliar students one last chance to remove the traces of their educational and cultural backgrounds” (p. 530). Such perspectives promote narrow notions of student ability and disregarded students’ repertoires of practice (Gutiérrez and Rogoff, 2003) as assets to successful learning (see Hull, Rose, Fraser, and Castellano, 1991 and Rose, 1985 for a comprehensive overview). Of consequence, these perspectives have made it more difficult to hold K-12 institutions accountable for the role in sustaining negative images of students as potential failures.

Cultural approaches informed by sociocultural views of learning and development have provided new approaches to extending students’ literacy repertoires. In contrast to traditional “remedial” approaches to instruction previously addressed in this article, the notion of *re-mediation*—with its focus on the sociohistorical influences on students’ learning and the context of their development—involves a more robust notion of learning and, thus, disrupts the ideology of pathology linked with most approaches to remediation. Instead of emphasizing basic skills—problems of the individual—“re-mediation” involves reorganizing the entire ecology for learning, and “a shift in the way that mediating devices regulate coordination with the environment” (Cole and Griffin, 1983, p. 70). Development here involves a “systems reorganization” in which designing for deep learning requires a “social systems reorganization” where multiple forms of mediation are in play (Cole and Griffin, 1983, p. 73). The concept of *re-mediation* constitutes a framework for the development of rich learning ecologies in which all students can expand their repertoires of practice through the conscious and strategic use of a range of theoretical and material tools.

To illustrate this concept, Cole and Griffin (1983) detail how a learning environment for elementary school students who struggled with reading was re-organized

to produce improved reading results. Too often in school settings, comprehension activities frequently practiced by students prevent them from acquiring a deep understanding of the text and engaging in literate practices. For example, one common comprehension activity, the central activity in the reading process, involves asking students to demonstrate their understanding of a text by selecting words from the text and then matching them to the question.

In contrast, in their approach to increasing student comprehension, Cole and Griffin developed a script for a new practice—“Question Asking Reading”—in which students formulated their own questions about texts, rather than simply answering questions generated by someone else. Students were placed in small groups, assigned roles, and provided scripts with individual tasks listed on cards for completion. Through this process, students were able to understand the texts in more robust ways—including ways that were more in alignment with the forms of comprehension valued in school. Here, the development of a functional system for teaching reading is created to re-mediate the local practices of one learning environment, as well as a history of practices organized for children’s failure (Cole, 1998).

Of significance, the approach for helping students develop productive reading strategies was not to focus on basic skills, a progression from the very simple—i.e., letters and sounds—to the more complex processes of meaning-making; instead, teaching reading effectively involved emphasis on the activity of reading itself, where the individual skills associated with reading were already part of the activity. In short, learning was organized so that individuals could participate in the social practices of reading in joint activity with others where multiple forms of assistance were readily available (Gutiérrez et al., in press).

## Re-mediating Writing

In the domain of writing, there is comparable antecedent work that has helped push back on remedial interventions for students who were unfamiliar with academic discourse and writing genres. Rose (1989; 1985; 1988); Hull, Rose, and Castellano (1991) and Hull and Rose (1989; 1990) produced a seminal body of work that sparked a critical conversation about writing pedagogies organized around exclusionary, deficit, narrow discourses of literacy and literacy learners, and of intelligence. While there have been a number of important studies that called for new ways to think about writing and writers (Bartholomae, 1985; Bartholomae and Petrosky, 1986; Coe and Gutiérrez, 1981; Perl, 1979; Shaughnessy, 1977), we focus on this body of work, as it reflects among the first to bring a sociocultural analysis to rhetoric and composition studies with a particular focus on the effects of remedial instruction on writers' development. These writing-specific studies help illustrate the limits of remedial education and signal the problems of broader deficit approaches to addressing the range of literacy needs of students. As part of their new approach, Rose and Hull worked to bring together a cognitive and social model to their analysis, rather than relying solely on literary studies to examine writing development.

In "The Politics of Remediation," Rose (1989) opened up a new conversation about students who are in the process of extending their writing repertoires to include academic writing. By reframing student identities as "literate people straining at the boundaries of their ability, trying to move into the unfamiliar, to approximate a kind of writing they can't yet command" (p. 291), Rose reframed commonplace conceptions of writers new to the conventions of academic discourses, genres, and practices. And, nowhere would the clash between these conventions and students' vernacular and everyday practices be more evident than in the writing tutorial centers where Rose studied students who were struggling with the new tools of the academy, as he helped them "write

their way into the University” (Bartholomae, 1985).

Such work is not neutral, and, in fact, it is work that is often at odds with the ideals and practices of the academy. Remedial work has never been regarded as part of the work of the University but rather a necessary and marginalized enterprise (see also Gutiérrez et al., in press; Street and Lea, 2006). At the university level, for example, where the intellectual class structure privileges a certain cognitive work (e.g., research), providing students assistance like tutoring is devalued or marginalized (Rose, 1989). To address the structural inequities in the education of students with different and emergent literacy repertoires, Rose contextualizes his study in a policy analysis that examined the ways knowledge is structured at the university and how students are prepared to participate within that disciplinary structure. Rose noted that claims of students’ failure to write academically lack historical perspective and fail to address the role institutions play in perpetuating students’ participation in remedial writing programs. Such claims that blame the victim, tend to draw on three kinds of evidence to advance the ‘problem’ of remedial writing students: 1) declines in students’ local and national test scores; 2) increasing enrollment in remedial programs and classes; and 3) evaluations by university professors.

Building on this theme of exposing the consequences of remedial programs, Hull and Rose (1989) call for a reconsideration of the concept and practices of remediation and the need for new approaches that captured the complex cognitive and social processes that produce writing. In contrast to text-based analyses that do not account for cognitive and social factors or have difficulty detecting the sources of error, Hull and Rose proposed a social-cognitive approach that employed fine-grained analysis, process tracing, retrospective interviews, and observation of students’ writing *in situ* to help document a student’s writing history. With methods that help make visible a logic in students’ writing, they argued, instructors can develop new understandings of students’ writing, their potential, and the appropriate pedagogical intervention. This approach was particularly

crucial in this historical period as:

...the theoretical and pedagogical model that was available for ‘corrective teaching’ led educators to view writing problems within a medical-remedial paradigm. Thus they set out to diagnose as precisely as possible the errors (defects) in a student’s paper – which they saw as symptomatic of equally isolable defects in the student’s linguistic capacity – and devise drills and exercises to remedy them (p.193).

As the enrollment of non-traditional students in four-year institutions increased, institutions increasingly relied on writing courses and tutorials to provide assistance to students attempting to master the conventions of academic writing. Hull and Rose’s (1989, 1990) studies of remedial writing instruction provided both close analysis of ways classroom practices helped to construct student identities as remedial students, as well as a study of how institutions are complicit in perpetuating the ideologies and practices that are instantiated in remedial approaches in the academy. In “This Wooden Shack Place. . .” Hull and Rose (1990) examined how a college student’s sociocultural background and individual history and the social organization of a writing conference between instructor and student shape the students’ classroom literacy practices. We learn how attention to the student’s linguistic and sociocultural repertoire provides valuable insight into students’ interpretations of text and effective and responsive pedagogical approaches.

In a subsequent empirical work, Hull, Rose, Fraser, and Castellano (1991) elaborate the discussion of remediation as a social construct—that is, the product of perceptions and beliefs about literacy and learning—and call for new methods that provide a fine-grained analysis against a cultural historical backdrop to understand students’ writing practices and challenge narrow notions of intelligence. To connect these local classroom practices with larger systemic structures and ideologies, they embed their case study of one student in a remedial college-level writing class within a broader history of

American education where low-achieving students are considered to be “lesser in character and fundamental ability” (Hull, et al., 1991, p. 311). This work documents how dominant discourses of remediation and teachers’ unfamiliarity with non-dominant discourses can contribute to the social construction of remediation and views of students’ thinking as deficient, particularly students whose repertoire does not include knowledge of traditional classroom discourse patterns, including the ubiquitous recitation script (Mehan, 1979).

## **Cultural Modeling**

More recent approaches organized around cultural historical principles of learning and development (Cole and Engeström, 1993) include interpretive approaches such as cultural modeling (Lee, 1995, 1997, 2000, 2007) and the funds of knowledge project (González, Moll, and Amanti, 2005; Moll, Amanti, Nuff, and González, 1992 ). Researchers across disciplines responded to the importance of attending to culture in understanding students’ learning, while recognizing the tendency in previous research to conflate race/ethnicity with culture in ways that reduced culture to a trait of individuals by virtue of their membership in particular communities, notably non-dominant communities. While there are clear links to earlier cultural mismatch approaches, the “cultural modeling” framework resolves the problems emerging in the cultural-mismatch and related models through its use of a dynamic and processual notion of culture. Unlike approaches that rely on cultural explanations of difference, cultural modeling not only attempts to bridge home and school, non-dominant and dominant cultural practices, it explores genuine connections that can be made by students with school-based learning. Specifically, studies within this framework examine how culture is implicated in everyday and school-based practices and knowledge domains.

Approaches intended to challenge deficit notions regarding the literacy practices of  
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cultural communities often unintentionally produced narrow notions of culture and the practices of the communities under study (Gutiérrez and Rogoff, 2003). Further, the deep lack of understanding of how to make sense of the “cultural displays of knowledge” of youth engaged in everyday practices has produced what Lee (2007) argues is a “pervasive culture of low expectations, to deficit models of student capacities, and to a myriad of misunderstandings within classrooms” (p. 25). In the field of literacy, cultural modeling has helped make visible and reframed students’ literacy practices and “repositions what might be historically viewed as vernacular practices as intellectually rich” (Lee, 2007, pp. 26-27).

The most extensive body of work within this approach is the Cultural Modeling project (Lee, 1995, 1997, 2000, 2007) developed by Carol Lee. This model relies on ethnographic and linguistic anthropological traditions to develop grounded theories about the range of practices in which students participate across the various contexts of their everyday lives and the resulting expertise. Documenting students’ everyday practices provides the opportunity to map everyday practices onto disciplinary modes of reasoning, analyze disciplinary modes of reasoning, and then map them onto academic processes and discourses. “Cultural Modeling is a framework for the design of learning environments that examines what youth know from everyday settings to support specific subject matter learning” (Lee, 2007, p. 15). Finding commonalities in modes of reasoning across contexts also serves to challenge deficit notions of students’ repertoires developed across non-school settings.

In this framework, students’ repertoires of practice are viewed as integral to their learning. In her work, Lee reorganizes African American students’ learning of complex literacy tropes by leveraging analogous vernacular practices with subject-matter specific practices within school. Lee’s (2007) analytical framework illustrates how the rhetorical practices of speakers of African American English such as those evident in the practice of

‘signifying’ (Smitherman, 2000) also are found in the figurative language in canonical literary texts. Thus, cultural modeling and its methods of study offer a productive approach to understanding the connections between everyday and school-based practices, and between everyday and school-based discourses (Lee, 1995, 1997, 2000, 2007).

One important tenet of a cultural modeling framework involves what Lee refers to as a *cultural repertoires of practice* perspective on culture, drawing on the work of Gutiérrez and Rogoff (2003); Nasir, Rosebery, Warren, and Lee (2006); and Rogoff, Paradise, Mejía, Correa-Chávez and Angelillo (2003). For Lee (2007), students, including those from African American and other non-dominant communities, “bring important cultural resources from their home and community experiences” (p.10). Cultural Modeling sheds light on the sophisticated *tacit* knowledge of youth by drawing on “cultural data sets”—that is, artifacts with which students themselves are expert—in classroom learning. Through an analysis of these cultural data sets, students are socialized into academic discourse, as they learn more about their own familiar tools and practices as well as about unfamiliar and even alienating canonical texts.

Antecedents of the Cultural Modeling framework are found in the concept of *funds of knowledge* developed by Luis Moll and Norma González (González, Moll, and Amanti, 2005; Moll, Amanti, Nuff, and González, 1992). By focusing on the range of social practices in which families engage, González, Moll, and colleagues developed an approach that documents the knowledge-in-practice that is part of household daily routines—i.e., the social practices that families arrange for everyday life. Documenting quotidian activity also makes visible the household relations of exchange across settings and social networks. In doing so, the funds of knowledge analytical lens helps to redefine the kind of toolkit that students from Latino households have available to them—the linguistic, sociocultural, and emergent forms of disciplinary knowledge that become resources for learning across settings and practices.

*A funds of knowledge* framework provides opportunity for educators to examine their assumptions about the available expertise in the homes and practices of Latino families and to rethink explanations for student performance built around views of home/school dichotomies and mismatched practices of home and school. Using ethnography to identify the local funds of knowledge and social networks of exchange, teachers involved in the project become engaged in practices in which the links between what they learn in homes and what they know in school contexts can be made. Through participation in these practices, new forms of interaction between families and teachers have the potential to recognize and extend students' repertoires of practice and to design new forms of learning activity that rely, in part, on a broader set of tools and practices to support literacy learning. Working within this framework, Civil (2006) has developed a mathematics curriculum based on the family's funds of knowledge in mathematical learning, that is, what mathematical knowledge is at work in families' practices.

While there are parallels between the two frameworks, Lee (2007) distinguishes several major differences. The first stems from the fact that a cultural modeling approach highlights the repertoires of practice of students, rather than those of adults or those emerging from family networks. Second, Cultural Modeling focuses on the "demands" of context-specific or domain-specific skills, such as narrative writing in English classroom contexts (Lee, 2007), paraphrasing across various subject-matter contexts (Orellana and Reynolds, 2008), and mathematics learning (Nasir, 2004). Across both frameworks, though, "the challenge is to select highly generative cultural data sets and not to trivialize making connections between everyday knowledge and school based knowledge" (Lee, 2007, p. 35).

A cultural modeling approach, then, privileges the language practices of students in spaces that have historically devalued the linguistic and cultural repertoires of practice often deemed deficient or unrelated to academic achievement. For example, Lee (2007)

found that when students were provided with cultural data sets that exemplified complex and dynamic figurative language, as well as interpretive problems such as symbolism, irony, satire, and unreliable narration—e.g., rap lyrics, music videos, poetry, and canonical African American literary texts—they developed deeper understandings of their own tacit knowledge of signifying practices, including their function, range, and potential. Expertise in analyzing tacit knowledge facilitated students' potential to analyze canonical texts.

Other literacy researchers have employed a cultural modeling framework in cross-cultural studies of children and youth's language practices. Arnetha Ball, for example, has documented cultural preferences in expository writing among African American adolescent speakers of African American English (Ball, 1992, 1995; Ball and Farr, 2003). Ball examined the organizational patterns of conversational and written expository discourse of African Americans during informal contexts, and utilized these patterns as resources to understand and produce expository writing in formal conversations and written contexts. In related work, *Exchanging Writing, Exchanging Cultures* (Freedman, 1994) looked at how cultures of teaching and learning in inner city schools serving large numbers of students from non-dominant groups are organized differently, both at the school and classroom levels in different countries. This research showed that our "usual" ways of organizing teaching and learning are not necessary. For example, "mixed ability" was normal in UK secondary schools, while it was unusual in US schools; similarly, teaching in the UK was characterized by its focus on developing curriculum that is informed by deep understandings of students and their development; in contrast, students' learning in inner city schools was dependent on curricular changes. A noteworthy and fundamental distinction at the curricular level was that students in the UK had the opportunity to explore one another's cultures through the medium of writing exchanges in which they reflect on their own cultural contexts and language practices. Studying these cultural practices of cross-cultural schooling environments provides useful insight into

how to re-mediate students' learning in U.S. contexts.

Drawing on the cultural modeling tradition, Marjorie Orellana and Jennifer Reynolds (2008) studied the everyday linguistic practices of immigrant Latino students to document the repertoires of practice of Latina/o youth who translate or “para-phrase” for adults in their families. Beginning with ethnographic research to find “analogous modes of reasoning” within communities, these researchers found that children of Mexican immigrants often translate documents for adults that require a ‘para-phrasing’ of highly rigorous text; of significance, they identified analogues between translating or ‘para-phrasing’ complex household or business interactions with the task of paraphrasing or meaning-making in classroom activities. These students demonstrate their linguistic “dexterity” in their ability to perform paraphrasing tasks, despite believing they cannot do this task in school settings. In contrast to those whose work focuses on learning in a specific discipline, Orellana and Reynolds explore connections that can be made across content areas.

In related work, Martínez, Orellana, Pacheco, and Carbone (2008) drew on the cultural modeling tradition, as well as the funds of knowledge framework (Moll et al., 1992) to construct a curriculum informed by the repertoires of practice of Mexican immigrant students and their translation practices in particular. This empirical work relied on qualitative approaches to document generative ways of mapping students’ “para-phrasing” skills onto academic processes, most notably writing (p. 423-424). In this study, students engaged in a series of writing tasks and were then asked to reflect on the context-specific nature of their writing practices and to draw on their knowledge of the ways they would speak to each respective audience. One important goal of this work involved helping students recognize how translation is a valuable skill both in and outside the classroom. To make this point explicit, the research team, including the teacher, asked students to reenact scenarios for different audiences, and write to different audiences. Each

audience was designated to represent the students' peers, family members, and school faculty members to demonstrate to students the various linguistic resources to which they have access. The authors note that "a key step in this process is to clearly and explicitly communicate to students that it is acceptable to draw on their full linguistic repertoires. Once students understand that teachers value the skills they possess, teachers can work with them to leverage and extend those skills" (p. 430). Within a cultural modeling frame, hybrid language and literacy practices are normative and help support a learning ecology in which students routinely draw on their linguistic toolkit to learn (Gutiérrez, Baquedano-López, and Tejeda, 1999; Manyak, 2001). As Orellana and Reynolds (2008) note, leveraging students' practices neither romanticizes nor minimizes the potential students' linguistic repertoires can have across a range of tasks, activities, and contexts. Cultural modeling also allows for the emergence of hybrid language and literacy practices and creates space for students to draw on the full repertoire of their linguistic and cognitive skills (Gutiérrez et al., 1999; Manyak, 2001).

Other researchers have employed a cultural modeling framework across a range of disciplinary areas to document expertise otherwise not captured in studies of non-dominant students' mathematical and science learning. In particular, Nasir's work (2000, 2005) has demonstrated how the cultural displays of African American youth playing dominoes and basketball can be used to understand the mathematical concepts of averages and algorithms in school-based settings. Researchers at the Chéche Konen project at TERC, (Warren, Ballenger, Ogonowski, Rosebery, and Hudicourt-Barnes, 2001; Warren, Rosebery, and Conant, 1992) have documented how the Haitian Creole argumentative structure facilitated learning in the science classroom.

Across all of these projects, students' repertoires of practice serve as robust units of analysis for understanding ways to design productive learning environments that supported specific subject matter learning. These studies highlight the importance of

understanding the cultural displays of knowledge that emerge in everyday practices (Lee, 2007). Evident in the cultural modeling approach is an explicit stance toward challenging longstanding narratives and practices that diminish the educational possibilities for students from non-dominant communities through their use of robust measures to document students' linguistic toolkits more accurately and comprehensively.

### *Designing for Expansive Learning*

Engeström (2001) proposed the theory of expansive learning within the framework of cultural-historical activity theory as a new approach to re-mediating previous theories of learning and their intervention projects. In particular, this activity theoretical approach is used to analyze and design learning ecologies in which new forms of collective activity could occur. To illustrate how expansive learning addresses the fundamental questions of any theory of learning, Engeström combines these first-order questions with the fundamental premises of an activity theoretical approach: activity systems as the unit of analysis; the multi-voicedness of activity systems; historicity; the central role of contradictions as sources of change and development in the activity system; and the possibility of expansive cycles in activity systems (pp. 136-137), necessary to promote expansive forms of learning. Researchers taking an activity theoretical approach should ask:

- 1) Who are the subjects of learning, how are they defined and located?
- 2) Why do they learn, what makes them make the effort?
- 3) What do they learn, what are the contents and outcomes of learning? And
- 4) How do they learn, what are the key actions or processes of learning?

(Engeström, 2001, p. 133).

Within this framework, expansive learning is defined as a historically new type of learning that emerges as participants struggle through developmental transformations in their activity systems, moving across collective zones of proximal development

(Engeström, 1999, p. 3). These developmental transformations can be understood “as the construction and resolution of successively evolving contradictions in the activity system” (p. 7).—

Engeström, Virkkunen, Helle, Pihlaja, and Poikela (1996), colleagues at the Center for Activity Theory and Developmental Work Research, have written that the Change Laboratory (Engeström and Engeström, 1986) is a new method in which practitioners can develop new work practices through its intensive and deep transformations. While the Laboratory has been used as a primary intervention for developmental work research, we include this approach here as it has influenced educational interventions by scholars across a number of countries interested in re-mediating students’ learning activity, including developing more expansive forms of literacy for students.

The basic design of the Change Laboratory interventionist project is organized around Vygotsky’s method of *dual stimulation* (see van der Veer and Valsiner, 1991). A fundamental notion at work here is that the experimental task is always re-interpreted and reconstructed by the participant by “means of his or her internalized ‘psychological instruments’ that cannot be strictly controlled from the outside” (Engeström, et al., 1996, p. 5). As Engeström and his colleagues observe:

Rather than giving the child just a task, ignoring her interpretation and reconstruction of the task, and observing how she manages, Vygotsky and his colleagues typically gave the child also potentially useful mediating artifacts—tools and signs. With them, the nature of the task could be radically changed. The potential capabilities and emerging new psychological formations of the child might be revealed. Thus, dual stimulation may also be characterized as *re-mediational design* (Engeström, et al., 1996, p. 5).

In this work, change laboratories create “temporary activity systems that are set up within existing organizations (e.g., hospitals, schools, factories, and banks)” (Cole and

Engeström, 1997, p. 504). For example, using the change laboratory methodology, Teräs (2007) developed a culture laboratory to examine interculturality and hybridity in immigrants' education and training in a Finnish vocational education and training context.

Early work that employed Vygotsky's method of dual-stimulation was reported by Luria (1932). In one illustrative example, Vygotsky worked with an adult man suffering from Parkinson's to re-mediate his ambulatory skills by introducing small pieces of paper, by means of which he was able to walk across a floor (Luria, 1932). By introducing a new mediating tool, the patient was helped "to overcome the symptoms of his disease by getting him to reorganize the mental processes he used in walking" (Luria, 2006, p. 129). This method was subsequently widely used in designing methods for re-mediating the behavior of adults with brain damage, or mentally retarded children (Amano, 1999; Luria, 1979 as cited in Cole and Engeström, 2007).

Interventionist projects organized around a cultural-historical activity theoretical approach such as change laboratories described above, formative-experimental research (Cole and Engeström, 2007), and social design experiments (Vossoughi and Gutiérrez, 2008) center attention on a systems reorganization. Formative experiments are designed to coincide with the "time course of the 'formative' (developmental) processes under examination" (Cole and Engeström, 2007, p. 493). Similarly, social design experiments, organized around equity-oriented principles and expansive forms of learning, are oriented toward transformative ends through mutual relations of exchange among participants. Grounded in a humanist approach to research and a cultural historical approach to learning and development (Cole 1996; Cole and Engeström, 1993), this interventionist research is concerned with social consequences and transformative potential (Vossoughi and Gutierrez, 2008). Social design experiments are open systems that are subject to revision, disruptions, and contradictions and are co-designed with researchers and the target community (Engeström, 2004).

This process entails a transformation in the social organization of learning, the social relationships, the forms and uses of artifacts, and kinds of available assistance to ratchet up the possibilities for expansive learning. In the U.S., these projects are situated in an activity theoretical tradition of human development to argue for a fundamental change in the way instruction that serves students struggling with academic work is organized and in the educational and social inequities they face.

In our own work in literacy (Gutiérrez, 2008; Gutiérrez et al., in press), we elaborate the concept of re-mediation introduced by Cole and Griffin (1983) and Engeström's concept of expansive learning to redefine the object of re-mediating activity (Cole and Engeström, 1993) as meaningful learning in robust ecologies, rather than 'fixing' the individual. Here re-mediation of the learning ecology involves the reorganization of the activity system, including the social organization of learning, the social relationships, division of labor, and artifacts-in-use. The intercultural and hybrid nature of human activity, including classrooms and other learning environments, make polycultural strategies and solutions an effective means to respond to diversity (Cole, 1998). Cole (1998) suggests, "in recognition that multiple cultures are present in every classroom, and that whenever culture-using creatures interact, they create between them a hybrid subculture, appropriate to the culture it mediates" (p. 300).

One hybrid, collective activity system, termed *Third Spaces* (Gutiérrez, Rymes, and Larson, 1995; Gutiérrez, 2008) emphasizes heterogeneity as an organizing principle—heterogeneity in the language practices, in age, grade, sex, gender, race/ethnicity, as well as in the tools, forms of assistance, and the social organization and distribution of people with varying familiarity with reading and writing in the academy. These social design experiments (Vossoughi and Gutiérrez, 2008) are organized around expansive forms of learning, powerful literacies, and hybrid language practices that result from the intercultural exchange and boundary crossing involved in students' everyday lives.

Mediational artifacts such as *syncretic texts* designed to exploit the existing hybridity help create particular social environments of development in which students begin to re-imagine who they are and what they might be able to accomplish academically and beyond.

We highlight the syncretic literacy practice as one productive mediational artifact used to extend students' literacy repertoires. The syncretic text, by design, draws on several seemingly contradictory or inharmonious conventions and practices—i.e., a familiar cultural practice or vernacular form of language with written texts that demand attention to the conventions of the academy and the editorial assistance of peers and instructors. The basic rule of re-mediation here involves an expansive, hybrid, and additive approach to difference and diversity in which the social rules of participation and learning, and the division of labor, are re-mediated by a social imagination oriented toward new forms of collective activity and new uses of the technologies of reading and writing. These hybrid polycultural spaces are also exemplified in the Fifth Dimension project, a tertiary artifact (Cole, 1996; Vásquez, 2003) and in Change Laboratories (Engeström, 1998).

### **Re-mediating Inquiry: Concluding Comments**

We conclude this review by returning to the discussion with which we began this article. Narrow notions of student ability and literacy learning are linked in important ways to beliefs about culture and cultural communities. They are also linked to the methods of inquiry employed to define and measure student competence. The longstanding practice of using one singular method to assess learning and achievement has made it increasingly difficult to identify and document students' repertoires of practice or to view their linguistic toolkits as assets to learning (Erickson and Gutiérrez, 2002). This

issue has been addressed extensively in previous research and it was substantively elaborated in the work produced by the Laboratory for Comparative Human Cognition over the past decades (Cole, Engeström, and Vásquez, 1997).

In 1982, Michael Cole, Lois Hood, and Ray McDermott published a groundbreaking paper about the ecological invalidity of making inferences from laboratory-based observations, tasks, and tests to intellectual behavior observed and documented in the practices of everyday life. One significant observation advanced in this work emphasized the essential importance of addressing the dynamically organized influence of individuals on their environment as fundamental to the organization of people's behavior (Cole, Hood, and McDermott, 1982). In this work, Cole and colleagues did not question the merit of cognitive theories and their use in laboratory settings or with experimental design; instead their point was to demonstrate that theories and models emerging from laboratory or contrived settings should not be used to make predictions about human activity outside the laboratory (1982). Cole, et al. (1982) and others (Erickson and Gutiérrez, 2002; Scribner, 1975; 1985) have suggested that understanding and analyzing human behavior must begin with rich description of an everyday practice where the phenomenon under study could likely be observed in some systematic way.

The consequences, especially in relation to matters of race and ethnicity in cross-cultural research, have particular significance to dilemmas found in research today. In relation to the nature and origin of cultural differences, Cole, et al., (1982) note the ways deficit thinking and the penchant for remediating the 'unschooled' is complicated if not sustained in experimental/cognitive laboratory based efforts and texts:

Even with allowances for selection of artifacts and careful efforts to equate stimulus familiarity, motivation and comprehension of instructions, differences between schooled and unschooled populations were of sufficient magnitude to suggest that schooled subjects employed more powerful, flexible, and efficient

ways of remembering and thinking than their unschooled counterparts (p. 6).

This work called for the necessity of using ecologically valid tasks and tools that were representative of the ways people actually engage the intellectual tasks and challenges of their everyday lives. Its focus is on developing research practices that examine systematically the “cognitive ecology” of the people studied in order “to discover the general sets of everyday circumstances associated with improved, experimentally controlled performance without barriers” (p. 7). The guidelines derived from their work and theoretical orientations highlight important theoretical and methodological considerations that have particular salience in studies concerned with addressing risk, difference, ability, and literacy learning in school settings. Their work remains instructive to literacy research with students from non-dominant communities.

In sum, this review signaled the need for a radical transformation in the ways we conceive of the people’s literacy practices and how we extend the repertoires they develop across the practices of everyday life. Researchers have looked to cultural-historical approaches that rely on a “theory-practice methodology” (Cole and Engeström, 2007, p. 34) to design formative interventions, cultural modeling systems, and social design experiments, and social practice views of literacy to re-mediate current educational activity for students from non-dominant communities. Learning across these related traditions involve amplifying students’ cultural repertoires (Cole and Griffin, 1980), rather than relying on the default scripts of risk, difference, and deficiency—approaches that systematically fail to re-mediate educational activity in ways that make teachers and students active agents in learning processes.

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