

FUNDS OF KNOWLEDGE


Theorizing Practices in Households,
Communities, and Classrooms

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illiar to the reader. We have selected key texts that encapsulate the threads of this work. In Part I, Theoretical Underpinnings, we present ts of three published articles that describe the theoretical basis for rk. Part II, Teachers as Researchers, describes the firsthand experience of teacher-researchers who have participated in the project and who at their own insights and challenges in going beyond the classroom In Part III, Translocations: New Contexts and New Directions, we it examples of how the basic methodology has been adapted and rmed to meet particular contextual needs. Part IV, the concluding r, attempts to connect deeply with theory and research, and reflects implications of the work.

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RENCE

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Introduction: Theorizing Practices*

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The problem with many empirical data, empirically presented, is that they can be flat and uninteresting, a documentary of detail which does not connect with urgent issues. On the other hand, the 'big ideas' are empty of people, feeling and experience. In my view well-grounded and illuminating analytic points flow only from bringing concepts into a relationship with the messiness of ordinary life, somehow recorded.

—Paul Willis (2000, p. xi)

In this introduction, we present a brief description of how we have brought our theoretical concepts into this sort of relationship with the "messiness of ordinary life." These are the everyday practices that we attempt to theorize, practices that are at times emergent, perhaps counterintuitive, and sometimes opaque. Yet these practices do not emerge from nowhere; they are formed and transformed within sociohistorical circumstances. Practices are also constructed by and through discourses, the ways of knowing that populate our streams of talk. The lives of ordinary people, their everyday activities, and what has led them to the place they find themselves are the bases

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for our theorizing of practices. It is in the richness of telling these stories that we can find not only evocative human drama, but social analysis that emerges from its organic roots. Because this work has been a collaborative endeavor, we have relied on an interdisciplinary perspective. We have not always operated within a unified paradigm, although there are foundational premises that we have accepted as axiomatic, such as the power of social relationships in the construction of knowledge. The following section describes the emergent nature of jointly negotiating the process. Because we like to think of ourselves as engaged in a conversation, we present here the give-and-take of multiple perspectives, starting with the anthropological view.

THE ANTHROPOLOGIST'S VIEW (NORMA GONZÁLEZ)

We like to make much of the fact that in this project we are all learners: teachers as learners, researchers as learners, students as learners, communities of learners, and so forth. Actually, when I look back on the years that we carried out this work, the person who most needed to learn was me. I came into this project flush with anthropological theory, convinced that if only educators could appreciate the power of ethnography, the experience of schooling would be radically changed. It took a while for me to realize that what needed to change radically was the implicit ideology that had insidiously crept into my thinking: that to fix teachers was to fix schools. Although I continue to have the deepest respect for the teachers who have struggled through this process, I now wince as I recall my naïveté regarding the burdens under which teachers work. How can col- laborative ethnography, where teachers are actively engaged in research- ing and applying local knowledge, be sustained when institutional con- straints mitigate its continuation? An emancipatory social research agenda calls for empowering approaches that encourage and enable participants to change through self-reflection and a deeper understanding of their sit- uations. Yet these empowering approaches must contend with a context that isolates practitioners, mutes autonomy, and pushes for standardiza- tion and homogenization.

Rereading some of my writing concerning those initial stages, I realize that I was quite taken with the postmodernist and poststructuralist dis- courses which, in the parlance of the times, interrogated hegemonic rela- tionships and have done an admirable job of locating asymmetries of power and domination. What is not evident is how practitioners, within the limits of their very real structural constraints, can realistically carry out emancipa- tory and liberatory pedagogies when they themselves are victims of disen- powerment and their circumstances preclude full professional develop-

1. INTRODUCTION: THEORIZING PRACTICES

ment. Discourses of critical pedagogy have often become circumscribed within academic circles, peripheral to the very people they purport to affect because of a turgid literary style and an apparent lack of connection to ev- eryday life in classrooms. It is the quintessential instance of being able to talk the talk, but not walk the walk.

How does the funds of knowledge concept differ from other approaches, and how is it useful? What did we do and how did we do it? What have we learned, and what can we claim? What could we have done better?

First of all, it is important to note that this project did not emerge fully formed, but evolved through incremental steps, some more useful than others. Tracing the anthropological trajectory of this project, I look at the early work of Carlos Véllez-Ibáñez in *Bonds of Mutual Trust* (1983), a study of rotating credit associations in central Mexico and the Southwest. Drawing on work by the Mexican anthropologist Larissa Lomnitz, Véllez-Ibáñez de- veloped a fine-grained analysis of networks of exchange and *confianza*. Em- phasizing *confianza* as the single most important mediator in social rela- tionships, Véllez-Ibáñez (1983) claimed that *confianza en confianza*, trust in mutual trust, was an overriding cultural intersection for Mexican-origin populations (p. 136).

As director of the Bureau of Applied Research in Anthropology (BARA) at the University of Arizona in 1983, Véllez-Ibáñez continued this research interest in relationships of reciprocity. In 1984, he and fellow BARA anthropologist James Greenberg received funding from the Na- tional Science Foundation to carry out a study on nonmarket systems of exchange within the Tucson, Arizona, Mexican-origin community. This study ("The Tucson Project") involved extensive ethnographic interviews with households in two segments of the population, roughly falling into working-class and middle-class descriptions. This work clearly demon- strated the extent to which kin and non-kin networks affected families and households (see Véllez-Ibáñez, 1996, pp. 143-181). The ethnographic in- terviews revealed "core" households, households (usually the mother's) that were central to providing information, goods, mutual help, and sup- port to a whole circle of other households. Because I was an ethnographer on the Tucson Project and a graduate student at the time, I realized first- hand the transformative effect of knowing the community in all of its breadth and depth. I had been born and raised in Tucson and felt that I was quite familiar with the cycles of life here, but the experience of talking firsthand to families, hearing their stories of struggle and hardship, of sur- vival and persistence, magnified hundredfold the puny insights I held. I learned personally of the warmth and respect given to interviewees, and of the responsibility we held as part of *confianza*. In many ways, the Tucson Project set the groundwork for the methodological and theoretical bases of the Funds of Knowledge project.

THE EDUCATIONAL RESEARCHER'S VIEW (LUIS MOLL)

Here is where I enter the story. I arrived in Tucson in 1986 after working at the University of California, San Diego. I was not only new to Tucson but considered an outsider both culturally (I am Puerto Rican) and in terms of my academic background, as I am an educational psychologist collaborating with anthropologists. With the help of several colleagues, especially Esteban Díaz, and in collaboration with teachers, I had conducted studies in San Diego that borrowed from ethnographic methods in researching both classroom dynamics and home life, primarily with Mexican children and families. Furthermore, inspired by Vygotsky's cultural-historical psychology, which emphasizes how cultural practices and resources mediate the development of thinking, I had been exploring how to combine insights gained from reading Vygotsky (and others) with the cultural emphasis of anthropological approaches. I will say more about this topic later in this chapter.

Two of our studies in San Diego were the immediate precursors of the Funds of Knowledge projects. In one study we used classroom observations and videotapes of lessons to analyze the social organization of bilingual schooling. We were struck by how English-language instruction did not capitalize on the children's Spanish-language abilities, especially their reading competencies. With the teachers' help, we experimented with the organization of reading lessons, creating a new reading arrangement in English that moved away from a sole emphasis on decoding and concentrated instead on developing the students' reading comprehension while providing support in both languages to help them understand what they read. We were able to show that students relegated to low-level reading lessons in English were capable of much more advanced work, once provided with the strategic support of Spanish in making sense of text (see Moll & Díaz, 1987).

A second study, conducted in middle schools and with the assistance of several teachers, focused on the teaching of writing in English to learners of that language. The study also featured home observations and interviews with families to document the nature and extent of family literacy. We formed a study group with the teachers which allowed us to meet regularly in a community setting to discuss what we were learning from the home observations and how it could be used in the classrooms. It was especially important that the teachers agreed to experiment with their instruction by including topics of relevance to broader community life and to keep a reflective journal of their attempts at change, which we would then discuss in the study group. Their instructional changes included more emphasis on the process of writing and in creating opportunities for the students to talk

about what they wrote, which generated more writing by the students and many more opportunities to teach. We also found that the teachers' study group served as an important "pivot." This was a setting where we could turn to what we were learning from the home visits while addressing how to improve the teaching of writing (Moll & Díaz, 1987).

These two studies formed the bases of the design of the first funds of knowledge study in 1988, funded by the Office of Bilingual Education and Minority Language Affairs of the U.S. Department of Education. The idea was as follows: to replicate the three-part design implemented in San Diego—the home observations, the after-school study group, and the classroom work—but to base the household observations on the Tucson findings of Vélez-Ibáñez and Greenberg regarding funds of knowledge. We called the study the Community Literacy Project (CLP). The central thrust of the work was to document the funds of knowledge and literacy practices of the homes we studied and observe the teaching of literacy in selected classrooms while helping teachers use our household data to generate new forms of literacy instruction in their classrooms (see Moll & Greenberg, 1990).

This project convinced us of the great theoretical utility of the concept of funds of knowledge in developing a systematic approach to households. In particular, we realized that we could visit a wide variety of households, with a range of living arrangements, and collect information reliably that would inform us about how families generated, obtained, and distributed knowledge, among other aspects of household life. We established that these homes and communities should be perceived primarily, as their defining pedagogical characteristic, in terms of the strengths and resources that they possess.

We also confirmed in that first project the importance of creating collaborative working arrangements with teachers. As in the earlier San Diego study, the teachers' study group quickly became the coordinating center for the project's pedagogical activities. Within these groups, teachers were able to think about their classrooms and what they wanted to change, and consider how to use data on funds of knowledge to change their instruction. This first study provided us with the initial case studies of teachers successfully using the study's ideas and data as part of their teaching. It also became clear, however, that just as we were approaching households as learners, we needed to approach classrooms in a similar way to learn from the teachers' work, even as we helped them rethink their classroom practices. So far, the teachers had contributed greatly to the pedagogical thinking and analysis of our research team but had played no role in the data collection of the household funds of knowledge. We set out to remedy that imbalance by creating the prototype of the funds of knowledge approach.

HOW DO ANTHROPOLOGY AND EDUCATION FIT TOGETHER? ANTHROPOLOGY AGAIN (NORMA GONZALEZ)

We return to the anthropological perspective. Many of the assumptions and methods for a funds of knowledge approach are rooted in participatory ethnography, and in anthropological theory.

What Did We Do?

The pilot Funds of Knowledge study began in 1990 with 10 teachers and funding from the W. K. Kellogg Foundation. A sister project, with four teachers, was funded in that same academic year by the National Center for Research on Diversity and Second Language Learning at the University of California, Santa Cruz. Although the groups met separately, the methods and format were similar.

The underlying rationale for this work stems from an assumption that the educational process can be greatly enhanced when teachers learn about their students' everyday lives. In our particular version of how this was to be accomplished, ethnographic research methods involved participant observation, interviews, life-history narratives, and reflection on field notes. These helped uncover the multidimensionality of student experience. Teacher-ethnographers ventured into their students' households and communities seeking to understand the ways in which people make sense of their everyday lives. Although the concept of making home visits is not new, entering the households of working-class, Mexican-origin, African American, or American Indian students with an eye toward learning from these households is a departure from traditional school-home visits.

Who Are the Teachers?

We strongly felt that only teachers who voluntarily participated should be included. Any project that adds to teachers' duties and the demands on their time has to take into account the extra burden that it places on teachers' schedules and lives. There can be little benefit gained from mandating visits where a teacher does not want to be in the household, nor the household members want to receive them. However, when there is sincere interest in both learning about and learning from a household, relationships and *confranza* can flourish.

Teachers participating in the project in its various iterations were primarily elementary school teachers, although middle school teachers from a variety of backgrounds and ranges of teaching experience were recently in-

cluded. Minority and nonminority teachers said they benefited from the process. Even teachers from the local community said that conducting household visits was "like coming home to my grandmother's house" and triggered childhood memories for them. One point that I found interesting was that the nonminority teachers who participated in the project seemed to share a background of exposure to other countries and cultures. Some had lived or traveled in Latin America, Africa, or Asia in their formative years. Others had parents in the armed forces, which had given them global experiences in the process. Teachers participating in the project were paid for their extra duty time.

A TEACHER'S VIEW (CATHY AMANTI)

As Norma points out, those of us who participated in the original Funds of Knowledge project were a diverse group. We represented a multitude of background experiences and became involved for a variety of reasons. We were all practicing teachers, however, and we were all volunteers.

When I became involved in the Funds of Knowledge project, I had recently earned my bilingual education teaching credentials. I was interested in this project because the first time I attended college in the early 1970s I intended to major in anthropology and was now planning to earn a graduate degree in that field. I heard about this project from Luis Moll, who had been one of my undergraduate professors. The school where I began teaching was targeted as one of the schools for involvement in the project.

What originally interested me in this project was the opportunity to combine my interests in education and anthropology. But what kept me involved was the impact it had on my thinking about teaching and the role teachers and parents play in schools. The school where I taught at the time was situated in a predominantly working-class, Latino neighborhood. During my teacher training, I was led to believe that low-income and minority students were more likely to experience failure in school because their home experiences had not provided them with the prerequisite skills for school success in the same way as the home experiences of middle- and upper-class students. The result has been that traditionally low-income and minority students have been offered lessons reduced in complexity to compensate for these perceived deficits.

My teaching experience did not validate the expectations I garnered from my teacher preparation studies. In my daily teaching practice I saw high levels of academic engagement and insight in my students who had typically been labeled "at risk" because of their demographic characteristics. I saw they were as capable of academic success as students from any other background. Additionally, most were fluent in two languages! Partici-

pating in the Funds of Knowledge project allowed me to delve into this seeming paradox.

This points to something else all of us teachers participating in the original Funds of Knowledge project had in common—the desire to improve our teaching practice and a willingness to step out of our comfort zones to achieve that end. The first thing we had to do was step into the world of ethnography and become trained in “participant observation.” This was the catalyst for us to begin looking at our students and the communities surrounding our schools in a new light. Going on ethnographic home visits, then meeting in study groups to process those experiences, allowed us to take advantage of the reflexivity inherent in ethnographic research. We went from viewing our students as one-dimensional to being multidimensional, and at the same time we gained the tools we needed to create the bridge between our students’ knowledge, background experiences, and ways of viewing the world and the academic domain.

I would like to point out, however, that unlike typical ethnographers, we were not detached observers of our school communities. Nor were we engaged in ethnographic research simply to document the home lives of our students or rework social theory. We already had a relationship established with the students whose homes we visited, and our purpose for gathering information on these visits was, again, to improve our teaching practice.

HOW DO WE FIND OUT ABOUT THE KNOWLEDGE IN THE COMMUNITY? (NORMA GONZÁLEZ)

In recent years, building on what students bring to school and their strengths has been shown to be an incredibly effective teaching strategy. The Center for Research on Education, Diversity, and Excellence (CREDE) at the University of California, Santa Cruz has developed five research-based standards for effective pedagogy (<http://www.crede.ucsc.edu>). One of these standards, *contextualization*, is concerned with making meaning and connecting school to students’ lives. What better way to engage students than to draw them in with knowledge that is already familiar to them and to use that as a basis for pushing their learning? But here is the challenge and dilemma: How do we know about the knowledge they bring without falling into tired stereotypes about different cultures? How do we deal with the dynamic processes of the life experiences of students? How can we get away from static categorizations of assumptions about what goes on in households? How can we build relationships of *confianza* with students’ households?

Our answer to these questions focuses on the talk born of ethnography: respectful talk between people who are mutually engaged in a constructive conversation.

What Are the Methods for Doing This?

As the Funds of Knowledge project evolved, the approach to ethnographic training shifted as we learned more about what works and what does not. Not surprisingly, what works is exactly our basic assumption: The more that participants can engage and identify with the topic matter, the more interest and motivation they will have. What does not work is a top-down classroom style approach in which participants can learn methodological technique, but that strips away the multidimensionality of a personal ethnographic encounter. In other words, we learn ethnography by doing ethnography.

It is difficult to reduce a complex process to formulaic terms because anything called ethnography is always in jeopardy of reductionistic misuse. However, there are certain important points that are key in adopting an anthropological lens. The first step was reading ethnographic literature. Teachers were provided with a reader that contained numerous examples of ethnographic work relating to educational settings. Secondly, we role-played and discussed a nonevaluative, nonjudgmental stance to the fieldwork the teachers will be conducting. We may not always agree with what we hear, but our role is to understand how others make sense of their lives. Sense-making processes may be contradictory or ambiguous, but in one way or another, understanding what makes sense to others is what we are about. The third step is to be a good observer and pay attention to detail.

The household visit begins long before the actual entrance into the home. As we drive down the street, we observe the neighborhood, the surrounding area, and the external markers of what identifies this as a neighborhood. We look for material clues to possible funds of knowledge in gardens (botanical knowledge?), patio walls (perhaps someone is a mason?), restored automobiles (mechanical knowledge?), or ornaments displayed (made by whom?).

During our initial training session (I hesitate to call it training because ethnography is not something one can be trained in, but must experience), we would show a video that contained two short segments of ordinary community scenes and ask participants to discuss what they noticed. This kind of preparation for participant observation allowed teacher-researchers the opportunity to hone their observational skills as well as focus on paying attention to the details of household life.

The first video contained a family yard sale with a great deal of activity going on at once. We stressed that this is usually what happens on a household visit. Life doesn’t stand still in these homes just so we can observe it. The vignette usually elicited comments on what is being sold, such as wooden doll furniture, which might indicate carpentry skills. Others noticed the interactions where older siblings were caring for the younger babies, indicating cross-age care-taking. Many teachers noticed the use of lan-

grage and commented on the code-switching between Spanish and English evident throughout. It was fascinating to notice how our own interests and our own funds of knowledge often colored and filtered what we observe. One teacher commented that he noticed a fountain in the backyard because he was installing one himself.

The second video segment that we used is particularly rich for tapping into potential curricular applications. It showed a nine-year-old boy in a backyard workshop, working with his father to build a barbecue grill. The scene is replete with measurement, estimation, geometry, and a range of other household mathematical practices. Because we do not often think of routine household activities as containing mathematics, this slice of life helped to conceptualize the academic potential of community knowledge.

Finally, and perhaps most importantly, we asked respectful questions and learned to listen to answers. The dialogue that comes about in the face-to-face interaction of the ethnographic interview is key to building bridges between community and school and between parent and teacher. Asking questions with the intent to learn more about others is a powerful method for establishing the validation of community-based knowledge.

What About Culture?

Because the term *culture* is loaded with expectations of group norms and often-static ideas of how people view the world and behave in it, we purposely avoided reference to ideas of culture. The term presumes coherence within groups, which may not exist. Instead, we focused on practice—what households actually do and how they think about what they do. In this way, we opened up a panorama of the interculturality of households, that is, how households draw from multiple cultural systems and use these systems as strategic resources. Because of the problematic nature of the term culture, the term has been used less in anthropology. The question then becomes how do we conceptualize difference? How do we replace the contribution made by culture while minimizing its limitations? We chose to focus on the practices, the strategies and adaptations that households have developed over time, and the multiple dimensions of the lived experiences of students. The question of culture is further explored in the next chapter.

The dialog of the ethnographic interviews provided a rich source of discourse, which encapsulates how people were thinking about these experiences. Together, discourse and practice form the basis for our approach to viewing households (see Abu-Lughod, 1991).

What Kinds of Questions Do We Ask?

It is important to remember that the interviews emerged as a type of conversation rather than a survey or research protocol. We asked permission of the households first, careful to explain that pseudonyms would always be used and confidentiality maintained. We also asked for permission to audio record the interview, if the family was willing, and permission forms were signed. We also explained why we were doing the interviews, with a focus on enhancing the educational experiences of students. We have found that the vast majority of parents are willing to participate, especially if it will help their children or other people's children. In fact, one comment that has circulated among us is that our problem has never been getting into the household. It has been getting out. That is to say that once parents are convinced that there is true and genuine interest in the everyday routines of their lives, we found that deep relationships of sharing took place. Still, it is important to explain to the family that the household is under no obligation to participate and may withdraw at any time.

On the basis of our previous experience in household interviews, we distilled critical topics into three basic areas. These areas correspond to three questionnaires that were generally covered in three visits. Using questionnaires as a tool was useful for teachers, as ethnographers, to signal a shift in approaching the households as learners. Entering the household with questions, rather than answers, provided the context for an inquiry-based visit. Questionnaires were used as a guide, suggesting possible areas to explore, and used previous information as a platform for formulating new questions. However, precisely because of this scaffolding, rather than providing protocols in this book for the home visits, we instead suggest broad topics that can be explored in a mutually educative manner.

The first interview was based on a family history and labor history. The questions were open-ended and we invited stories about families. We began by asking how and when the family happened to be here, which in our case, was Tucson, Arizona. This generally led to a conversation of family roots, tracing the movements of the family from locale to locale. We also asked about other households in the city and the region with whom they have regular contact. This helped us to conceptualize the networks within which the family operates. For example, we heard many stories of families who followed other family members to Tucson. They were then able to tap into knowledge about the area and job market that others had accumulated, establishing a form of social capital upon their arrival. The narratives that emerged from these household histories are incredibly powerful and often are testimonies to the resiliency and resources of people whose lives are often lived at the economic margins. We found that we would often ask only

one or two questions about family history before we were swept away with sagas of migration, resiliency, and survival.

These histories often had a deep impact on the teacher-researchers because of the obstacles that had to be overcome, as well as the current challenges of household members. One teacher was deeply impressed with a household she visited, an immigrant home in which 15 people lived, with each adult member working in labor-intensive jobs in order to contribute to the pool of resources. Teachers regularly encountered households that could only survive because of the networks of exchange that surrounded them. These networks are important sources for the diversity of funds of knowledge to which children are exposed.

The knowledge of grandparents, aunts and uncles, and extended family relations are also resources that go beyond the nuclear family. We have found that the very experience of relating a family history, rich in its own complexity, often evinced a historical consciousness in parents of their origins and where life has taken them. As parents related stories of their own mothers and fathers, grandmothers and grandfathers, life-histories came tumbling out in a fashion that is not often elucidated. Mexican-origin households told evocative stories of crossing into the United States on foot, of working in territorial mines and railroads, and of kinship networks that pulled them to their location in Tucson. African American households told stories of relocations and settlements, of grand matriarchs of extended families, and of their own views of community. American Indian households related to teacher-researchers the importance of participating in local traditional ritual Easter ceremonies and the impact that those rituals can have on a child's identity. Embedded within the experience of narrating one's own particular life trajectory is the extraction of deeper meanings from our own experiences. As family members narrated the stories of how they got to be where they are, everyday experiences came to be imbued with insights and coherence that led to alternate forms of learning.

The foundation of a family history often served as a platform for asking about the labor history of the household. We have found that labor histories are very rich sources for the funds of knowledge that a household possesses. The jobs that people work often provide them with a varied and extensive wealth of information. However, the types of jobs and labor histories that are common within a particular location are linked to regional patterns of political economy. In the Southwest, we found funds of knowledge consolidated in the ecologically pertinent arenas of mining and metallurgy, ranching and animal husbandry, ethnobotany, and transborder transactions. One interesting finding within household labor histories was that many families had approached a jack-of-all-trades strategy as a viable and necessary option in dealing with the fluctuations of the soft economy of Tucson, Arizona. For non-white-collar workers, survival is often a matter of strategic shifts in em-

ployment trajectories when a particular marketable skill bottoms out. This strategy was articulated by one father who stated, "If you want to stay in Tucson and survive, you have to be able to do everything: construction, carpentry, roofing, mechanics, or whatever. Otherwise, you'll starve."

For many households who do not see relocation as an option, the economic climate of the region drives households into a wide breadth of marketable skills in a multiplicity of areas. Children are not only exposed to the funds of knowledge that these shifts engender, but also to the strategic shifts in employment goals. This ability to shift strategies in mid-stream is a skill that the successful and productive citizen of the future must embody. These children are keenly aware that survival is often a matter of making the most of scarce resources and adapting to a situation in innovative and resourceful ways.

We found family members engaged in diverse occupations that gave them skills in many areas. For example, carpenters and seamstresses both engage in mathematical practices, which are often intuitive, based on common sense, and not based on academics. Yet these practices yield efficient and precise results, because errors are costly and can affect their livelihood. One important point to remember is that a labor history does not necessarily mean a job in the formal labor market. For that reason, we asked about informal labor history. Many women, for example, sell items out of their homes, such as tortillas and tamales, or sell cosmetics, or have a regular stand at the local swap meet (flea market). These are not often counted as jobs, but they are ripe with potential for children's formation of knowledge. One student was able to negotiate a barter system with a fellow swap-market vendor, which enabled him to purchase some particular clothes he wanted.

The second interview was based on regular household activities, in an attempt to capture the routine "practices" of the household. Children are often involved in ongoing household activities that can incorporate car repair, gardening, home improvement, child-care, or working in a family business or hobby. One child participated in bicycle repairs and was able to acquire a high level of competency in this area. We asked about music practices, sports, shopping with coupons, and other aspects of a child's life, which helped us develop a composite and multidimensional image of the range of possible funds of knowledge. We asked about any daily, weekly and/or monthly routines in which the family participated, and who they interacted with in these activities. We also asked about the kinds of literacy and mathematical activities that might be embedded in these practices, making the leap from informal out-of-school knowledge to formal academic knowledge.

The third interview was the most complex, and teacher-researchers reported that it was often the most revealing and lengthy. This area of understanding processes of sense-making involved how parents view and con-

struct their roles as parents and caretakers. This interview asked questions about parenthood, raising children, and the experience of being a parent. Parents were asked about their own school experiences, and asked how it contrasted with their children's school experiences. Immigrant parents were asked about school experiences in their home country, and to contrast it with the educational system in this country. There were also questions about language use for bilingual families, including when a particular language is spoken, and under what circumstances.

It is important to remember that questions were not asked in an intrusive way, and any question that seemed inappropriate was simply not asked. Teacher-researchers developed a set of skills in asking questions within a conversation in a way everyone found comfortable. None of the questions were prescriptive, and there was wide latitude in how the interview was conducted. For anyone wishing to conduct this type of home visit, we suggest that these topics form the basis for the interviews. However, because the strength of this approach is local context, the questions that can give us these insights will vary from locale to locale. We suggest a careful appraisal of the questions that can be asked respectfully within local circumstances.

A TEACHER'S VIEW OF THE QUESTIONNAIRES

(CATHY AMANTI)

The interview questionnaires we used were instrumental in creating the positive focus for the visits we made to our students' homes. The types of information we gathered prompted us to change our perspective of our students' homes and communities from, at best, being irrelevant to the educational process and, at worst, being the cause of our students' lack of educational progress, to being rich resources for teaching and learning. This change in perspective was not limited to the students whose homes we visited. After going through the process of getting to know a few students on a deeper level by visiting them in their homes and seeing how little we really knew about them just from our classroom interactions, we began to realize that even those students whose homes we had not visited were bringing multiple resources to school. From our experience with the questionnaires we learned how to ask the right questions, even in the classroom, to get at what funds of knowledge these other students possessed.

HOW IS THE HOUSEHOLD SELECTED?

(NORMA GONZALEZ)

There was wide latitude involved in the selection of households. Teacher-researchers had full flexibility to choose any student. Some adopted a lottery system, picking a name at random, and others identified particular

households because they had previous contact with them, or had an interest in getting to know the family better. It was important that the family be willing to participate, that they be informed that they could withdraw at any time, and that they be aware that it involved a time commitment. Children often clamored to have their homes visited, and teachers were invariably welcomed as honored guests and with the utmost respect and courtesy. Conversations about family histories often brought out picture albums, yellowed newspaper clippings, and elaborate genealogies. Topics about work and hobbies often produced handcrafted items or tours of home improvement projects. Talk about schools generated diplomas and awards. Teachers were often invited back informally to participate in family gatherings or church and community functions. Telling their story became an important and valued experience for parents, when there was a truly engaged and interested listener and learner.

How Many Households Are Interviewed?

It goes without saying that it is impossible to interview the household of every student in a classroom. In fact, teachers typically conducted complete interviews with three students and their families. This may seem like a small number, but it actually represents a great deal of investment in time on the part of the teacher. Hectic schedules of both teachers and household members preclude frequent visits. Most visits were spaced out over a period of several months. Even when teachers were able to conduct only one in-depth series of interviews with a household, they still found it to be a powerful process. As we might expect, the more households were interviewed across a number of school years, the greater the insights into the community. However, we cannot underestimate the power of engaging in a long-term sustained relationship with only a few families.

What About Language?

As we have mentioned, the teachers we have worked with represent a diversity of background and experience. Although some of the teachers have been bilingual, others were not. Still, bilingualism has played an important role in our work. Bilingual teachers have, for the most part, carried out the interviews by themselves. However, we did recommend that teachers consider going in pairs to interviews, and this strategy worked well with non-bilingual teachers. These teachers were often accompanied by classroom paraprofessionals, who are almost always bilingual and who generally have a good sense of community context. In these cases, the bilingual paraprofessional was able to facilitate the connection to the household. However, this also means that paraprofessionals should be a part of the ethnographic

training and participate in other professional development activities (see Rueda & Monzó, 2002). In one case, a monolingual teacher was accompanied by her bilingual principal, and they engaged in a rich, dual-language interview. Because the aim of the household interviews is to come to a deeper and more nuanced understanding of community practices, it is important that the formation of relationships be the guiding principle. The interview is not only meant to gather information, but to create new linkages between parents and teachers. The language of the interview becomes an important context for these relationships, and a great deal of thought should precede how communication will take place.

In addition, the study group discussion most often occurred in both English and Spanish, depending on the topic and the discussants. All of the questions used in the interviews are available in both languages because many of the interviews are conducted not only in one language or another, but in a combination of both. The writing of field notes also reflects bilingual language practices, prominent features of the households and communities we have studied. This bilingualism has been part of the texture of the interviews, so much so that in many ways we could not imagine conducting the research monolingually. Thus, this code-switching, this interplay of codes, often censored in schools, has become the language of research and yet another cultural resource as we attempt to represent and understand the communities within which we work.

What Happened After the Interview?

The field notes were important in reflecting on the interviews and visits. We asked the families' permission to tape-record the interview, since this helped to reconstruct the experience. The field notes documented the findings and details of the visit in a way that helped to further process the experience. The writing of field notes can be time-consuming, but the written expression helped to collectively share the insights gained from the visit in the study group. Following their forays into the field, teacher-researchers were asked to write field notes, as all field workers do, based on each interview, and these field notes became the basis for the study group discussions. Teachers overwhelmingly remarked on the time-consuming nature of this process. After a hectic school day, taking the time to conduct interviews which often stretched into two or three hours, and then to later invest four to five hours in writing field notes was an exacting price to pay for a connection to the household. They cited this one factor as precluding wholesale teacher participation in this project. Yet, in spite of the strain of the task, the teachers felt that the effort was worth it. It was in the reflexive process involved in transcribing that teachers were able to obtain elusive insights that could have easily been overlooked. As they replayed the audiotapes

and referred to notes, connections and hunches began to emerge. The household began to take on a complex reality that had taken root in the interview and reached its fruition in reflexive writing. Writing gave form and substance to the connection forged between the household and the teacher.

THE STUDY GROUP SETTINGS (LUIS MOLL)

I want to underscore the importance of developing study-group settings with teachers. These settings, mentioned in several chapters in this volume, are deliberately created to facilitate interactions between teachers and researchers about the work at hand. It is difficult to underestimate the importance of such settings for a funds of knowledge approach. We have come to call them the "center of gravity" of the project. These are the places where we conduct all project business. It is where we discuss the background readings, introduce observations and note-taking, revise interview procedures, review findings from each visit, and discuss classroom practices and implications. It is also the place where we initially get to know each other and create relationships among participants through the discussions about the work.

The study group is also the place where we examine ethical considerations in the study. Any project involving multiple participants visiting various households has the potential to encounter ethical dilemmas. One such issue, for example, is whether teachers are being unnecessarily intrusive in visiting households. Although this is a concern of some teachers at the beginning of each study, this is a topic that to our knowledge has never been raised by the families themselves. This may be because we carefully negotiated entry into the households, usually by working with the teachers in contacting parents and explaining the work and our request to visit. Although we have not kept statistics, in the great majority of cases the families accede readily to the visits. Once we start the visits, we reiterate the purpose of the study as often as necessary, and assure the respondents of confidentiality, that they need not answer any question they do not like, and we offer to give them copies of the interview tapes or of the transcripts. In our experience, the families have never refused to answer any question. On the contrary, our experience has been that the families engage us in an extended dialog during each of the visits.

A question we get often during presentations about the work is whether we encounter many dysfunctional families; whatever the definition of this term. The answer is no. This may be because of the way we sample families, usually based on the suggestions of teachers, with an eye toward gaining access to the household. It could also be that if a family is having extreme dif-

facilities, it would not become a candidate for a visit or consent to it if asked. But more than likely, it is that the perception of dysfunctionality in working-class neighborhoods is misleading and exaggerated. As we have pointed out often, the families we visit represent the status quo in their communities. In other words, they are working folks; these are not families that form part of any "underclass," a term that has unfortunately come to characterize low-income families in general (see Véllez-Ibáñez, 1983). We do not mean to suggest, however, that low-income communities do not have problems, especially as produced by structural factors; of course they do (see Véllez-Ibáñez, 1996, ch. 5). The perspective that we reject is that these problems characterize entire communities, removing from consideration the ample and positive resources families possess.

Another important aspect of study-group settings is their mobility. We usually meet after school and at the school, as a matter of convenience. However, we have also met at our homes, at restaurants, libraries, and other locations. We have also used university courses as study-group settings of sorts. The course routines ensure weekly meetings, which gives a study continuity. However, the course structure places the university-based teacher in the position of authority, given the requirements of assignments, assessments, and grades; a contradiction to the symmetry we call for in our collaborations.

In any case, regardless of location, the study-group settings serve similar "mediating" functions between the household visits and the classroom work. The term mediation has a special meaning in our studies, one that we borrow from the writings of Vygotsky (1978). A major point in his theory is how culture provides human beings with tools and other resources to mediate their thinking. In a nutshell, from birth one is socialized by others into particular cultural practices, including ways of using language(s) and ways of using artifacts that become the "tools for thinking" through which we interact with our social worlds. Thus, from a Vygotskian perspective, human thinking has a sociocultural character from the very beginning, because all human actions, from the mundane to the exotic, involve "mediation" through such objects, symbols, and practices. Put another way, these cultural tools and practices—some which are stable, and some which change across generations—are all some implicated in how one thinks and develops.

There are three main ways that these Vygotskian ideas are found in our work. First, notice how these ideas relate to the analysis of household funds of knowledge (see Moll & Greenberg, 1990). As emphasized throughout this book, funds of knowledge are generated through the social and labor history of families and communicated to others through the activities that constitute household life, including through the formation of social networks that are central to any household's functioning within its particular environments. From this perspective, then, funds of knowledge represent

one of the household's most useful cultural resources, an essential tool kit that households need to maintain (mediate) their well-being.

A second way is that funds of knowledge become cultural resources for teachers as they document their existence and bring them to bear on their work. But to carry out these tasks, teachers must themselves acquire, or appropriate, certain specialized tools to conduct research that come to mediate their thinking about these matters. It is this idea of "appropriating," of taking over, certain procedures, artifacts, discourses and reasoning, that applies so well to how the study groups function in our approach.

To elaborate on this, I want to highlight two aspects of these study groups that have to do with the production of theoretical (re)presentations. A major role of the study group has been to help facilitate the participants' comprehension of social life in the households they study. The processes by which these understandings are created varies, but it starts with the preparations to conduct the household visits. As explained earlier, entering the households with questions is essential in developing such an inquiry-based approach. Equally important is for teachers to gain an understanding of funds of knowledge as a "fluid" concept, and that its content and meaning are negotiated through discussions among participants. Also, it is through the process of writing field notes and discussing them that one gives theoretical form and substance to the connections forged empirically between the households and the teachers.

Our approach to understanding families and their cultural resources also includes raising possibilities for changes in classroom practice. This is the third way that the Vygotskian formulations have played a role in our work, especially as combined with an anthropological perspective, in understanding classrooms as cultural settings. During the course of our studies we made the decision to take a more ethnographic stance toward the teachers' classroom practices. Our task shifted from stimulating changes in practice, especially as related to literacy instruction, to understanding how teachers made use of their experiences and resources within classroom contexts. The teacher-authored chapters included in this book reveal the multiple conditions and strategies followed in transporting experiences from their research into their practice. To be sure, this process of transportation is not to be thought of as a simple transfer of skills from one setting to the next. As the reader will appreciate, it involves a much more complicated process of recontextualizing not only the knowledge obtained through the research, but the perspectives and methods of inquiry that led to that knowledge.

Perhaps the connecting thread among the teachers who participated in our studies is a renewed emphasis on an inquiry model of teaching, one in which the students are actively involved in developing their knowledge. It is through an inquiry process, conceptualized in several ways, given the vari-

ous participants within different work situations and curricular exigencies that one can create conditions for fruitful interactions between knowledge found inside and outside the classroom. The key for any inquiry method is to expand the resources available for teaching and learning within classroom settings (Moll, 1990, 1992, 1998, 2002).

STUDY GROUPS AS PEDAGOGICAL MODEL (CATHY AMANTI)

It is no accident that an inquiry approach to teaching is a common thread in curriculum developed by teachers participating in the Funds of Knowledge project. As teachers engage in theorizing household knowledge and practices in the study group context, they are at the same time "socialized" into a particular type of pedagogy. As mentioned earlier, study groups are reciprocal, collaborative, and democratic; where teachers learn from researchers, researchers learn from teachers, and teachers and researchers learn from households; where what each person brings to the context is valued as one more piece to the puzzle of how to ensure academic success for all our students. In the study-group setting, university researchers serve as facilitators rather than instructors, acting as guides as teachers construct new knowledge about teaching and learning based on their experiences in their students' homes as well as their previous classroom experiences. The type of learning that takes place within the study group context by teachers has become the model for the curriculum that has been developed by funds of knowledge participants and the role the university researchers take in study groups is the one teachers have taken in their own classrooms.

The study groups are also supportive, nonjudgmental settings where teachers feel safe to share tentative conjectures and hypotheses about the importance and significance of what they are experiencing during their household visits. And they create the conditions where teachers can become risk-takers, willing to experiment and try out new strategies and practices in their classrooms. Those are exactly the conditions we want to create for our students in our own classrooms so that they become safe, nonjudgmental environments where students feel free to take risks and test their own hypotheses about what they are learning.

THEORIZING PRACTICES (LUIS MOIL AND NORMA GONZÁLEZ)

It is important to note at this juncture that the theorizing of practices involves both households and classrooms. Very often theory and practice

are presented as a matter of course in terms of putting "theory into practice." We suggest an alternative view to this binary. We suggest that as the practices of households are theorized, we as educators can come to deeper understandings of the complexities of students' lives. As ideas of practice are often based on the work of Bourdieu (1977), who theorized not coherence, but contradiction, and nuances rather than linear connections, we can see the theorizing of practices as an important step in comprehending the contexts of students' experiences. But the theorizing of practices is not only meant for households. As we met in the study groups, household practices were strategically related to classroom practices. Teachers were free to make connections to their classrooms in any of the content areas or in thematic units. Some teachers, because of school-based curricular requirements, were more restricted in the way they could incorporate household knowledge into the classroom. During the study group, an exploration of possibilities resulted in a wide array of opportunities to affect classroom practice. One teacher (Ayers, Fonseca, Andrade, & Civil, 2001) explored a construction unit with his students, based on their ideas of "building their own dream house." In this unit, students began by exploring two-dimensional floor plans of their dream houses and then progressed to drawings of blueprints of actual floor plans, using the correct architectural symbols for doors, windows, sinks, and so forth. They then went on to conceptualize and abstract geometrical concepts, calculating areas, perimeters and angles of sections of regular polygons. Finally, the students made scale models of their dream project, presenting it to an audience of students and teachers. (For an exploration of classroom practices that stem from a funds of knowledge approach, see McIntyre, Rosebery, & González, 2001.)

The process of theorizing practices addresses the critical task of representing the households and by implication the school's community, a task that all teachers engage in one way or another whether or not they participate in a research study. As mentioned, our strategy has been to get close to the phenomena of household life by making repeated visits in our role as learners, armed with a particular theory and method. The elaboration of field notes, journals, and academic articles are, by necessity, a strategic reduction of household life, a partial representation of reality, for that reality is too complex to understand without reducing it for specific purposes. Here is where the concept of funds of knowledge plays a major role as a "cultural artifact," in the Vygotskian sense, that helps mediate the teachers' comprehension of social life within the households. This key concept (and related ideas), then, serves as a conceptual organizer, a strategic way of reducing theoretically (but with plenty of respect) the complexity of people's everyday experiences, without losing sight of the rich and dynamic totality of their lives.

Notice how important this understanding of the concept is, especially for novices visiting households. It is a matter of entering the households with theoretical provisions and methodological guidance that will give order to the often unmanageable task of learning about other people's lives. It is also a matter of learning how to use these theoretical tools wisely, carefully, and in consultation with others. Thus, our research starts with the theoretical questions we bring into households, but our data result from the translation of the information gathered into theoretically informed narratives.

The field notes and other artifacts, therefore, such as audio- and video tapes, the tools of our trade, provide a social context for our interpretations and actions. These artifacts are central in helping us develop a "new attitude" toward the cultural resources found in local households. But also notice that, in a sense, we first create this new attitude toward the text, toward the slice of life that we have represented in writing, as facilitated by the documentation of funds of knowledge, and then we generalize that attitude to the families with whom we work, the sources of the data. This interaction between text and social life, between word and world, is a constant process in the approach.

Of course, most of us are predisposed to think well of the families anyway, but even those who are not convinced or who have not given the topic much thought are influenced by the process, or they at least develop a new vocabulary to refer to household practices. Terms such as *funds of knowledge*, *networks of exchange*, *reciprocal relations*, or the creation of *confianza* become part of the theoretical lexicon of teachers. Thus, it is important to emphasize that we do not create these new attitudes, or the vocabulary, about the families simply by visiting them, but through theoretically inspired text analyses and reflections, that is, by theorizing practices.

How Can I Carry Out a Similar Project in My School?

The success of our project depended on the confluence of a number of factors that may or may not exist in other contexts. For example, the presence of a large research university, as well as an alignment of interdisciplinary research interests, may not always be the case. Nevertheless we do believe that the basic methodologies and assumptions are portable and generalizable and that each school can gain knowledge of its local context through these methods. We would suggest a careful reading of this volume in order to appropriate the themes and topics that would be relevant to your school. In addition, we suggest that this be undertaken with a group of like-minded teachers, as a certain critical mass is important. We also strongly suggest readings on ethnographic methods, such as Carolyn Frank's *Ethnographic Eyes: A Teacher's Guide to Classroom Observation* or Annette Lareau and Jeffrey Shultz'

book *Journeys Through Ethnography: Realistic Accounts of Fieldwork*. It is also important to obtain support from school administrators and any other concerned stakeholders. Our process was greatly facilitated by support from external sources as well as the local university. If these resources are available, all possibilities for collaboration should be explored. Most importantly, however, is a commitment to connect to students' lives, as well as a commitment to grow professionally as a researcher and producer of knowledge.

Is This Scientifically Based Research?

Of course it is. The nature of the phenomena we studied, the purposes of our inquiry, our theoretical principles, our collaboration with teachers, and other contextual considerations "specified" our methods, not the other way around. To be brief, our particular qualitative methods suited our inquiry. The current reductionist rhetoric by federal policymakers regarding what constitutes scientifically based research is myopic, not to mention terrible policy, in that it contributes to a very narrow and distorted view of science. As Feuer, Towne, and Shavelson (2002) commented, the extremist view that only certain positivist modes of inquiry (e.g., randomized field trials) are acceptable in educational research denigrates "the legitimate role of qualitative methods in elucidating the complexities of teaching, learning, and schooling" (p. 8).

Indeed, as Pellegrino and Goldman (2002) have asserted, in also criticizing the attempt of the government to legislate scientific methods, "the complexity of issues, questions, and problems in education often demand a melding of approaches to achieve innovative problem formulation and successful problem solving" (p. 15). This book represents one such melding of approaches, especially in the adaptations to involve teachers authentically in research collaborations that lead to innovations in both theory and practice.

That said, we are not opposed, in principle, to quasi-experimental studies in education, or to randomized field trials for that matter. It is simply the case that these are inappropriate choices of design given the purposes of our work and our collaboration with teachers as reported in this volume.

We have also been asked whether we collected test data on the students to "prove" that the approach works. The answer is no. We did collect test data in several classrooms in an earlier version of the study that included matched comparison groups, but found much of this information uninterpretable given variations among classrooms, differences in instruction, and other confounding aspects of practice. In general, our main strategy in terms of documenting changes in practice has been twofold: to produce theoretically informed case studies of classroom attempts at incorporating funds of knowledge, and to rely on teacher-produced narrative accounts of

their classroom work. The appeal, and we hope the readers will agree, is that these data, these case narratives, preserve the concrete conditions under which the work is conducted, the agency and improvisations of teachers in conducting the work, the actions of the students, and the qualitative transformations that took place within their classrooms. We believe that, in the pages that follow, we have made the crucial interplay among theory, methods, and findings clear for our readers. Ultimately, it is up to each reader to judge the worthiness of our efforts.

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THEORETICAL UNDERPINNINGS

This part of the book lays out the theoretical groundwork for the funds of knowledge perspective. It begins with a discussion about culture, and how we can come to a deeper appreciation of the dynamic and emergent conditions of lived experiences by moving away from stereotypical notions of culture. In her chapter, Norma González attempts to connect conceptualizations of culture to the construct of funds of knowledge. The two terms are not synonymous. Although culture has been a powerful tool to counter claims about the variability of human populations, it has become, for many anthropologists, more of a burden than a productive tool. The funds of knowledge of a community are not a laundry list of immutable cultural traits, but rather are historically contingent, emergent within relations of power, and not necessarily equally distributed. This chapter is an attempt to trace the genesis of the term *culture* and relate its changing usages to educational concerns.

In the next three chapters, it is evident how we have drawn from sociocultural perspectives in designing a methodology that views the everyday practices of language and activities as constructing knowledge. These three articles are reprints and describe the work as it was developing and transforming throughout the 1990s. One caveat to the reader: Because

the ripple effect of teachers engaging in qualitative household research. Teacher-researchers develop more complex theories of households, they are able to connect with broader sociopolitical contexts.

In the final chapter in this part, the voices of teacher-researchers take center stage. The continuing professional development of teachers has been identified and continues to be an area of considerable theoretical and practical importance. Our approach to professional development has been in engaging teachers as researchers in their own school communities. Rather than formulate generalizations about the communities where schools are located, teachers are presented with an array of theoretical tools that can help them move forward for themselves the funds of knowledge within their reach. The social processes within which students are embedded take on a new dimension. This is particularly important as schools, teachers, students, and parents attempt to construct communities of learners.

In this chapter, we offer an insider's look at how teachers can realistically engage in researching their students' communities. As we reiterate, there is no cookie-cutter recipe that will work equally well at all school sites. Although we believe that our methods and practices are transportable, we do not rely on rigid replication of a model. Instead we offer some general principles that undergird the reflexive process of engaging parents in face-to-face interaction. Stories of resilience, of hope against all odds, and of survival erupt in all shapes when the narratives that dwell within households are uncovered. For teachers, this can be both inspiring and exhausting. We have tried to present the teachers' own voices and narratives of this experience. An emphasis on the joint construction of knowledge helped us to do our work as multiauthored and polyvocal. This collaborative type of professional development provided a space for interactive research within an inquiry-based environment. We were all learners. Yet, we found, that engagement in a teacher study group did not end at the door to the school grounds. Parents and community members engaged in a reflexive process of telling their own stories, which itself engendered a form of historical consciousness of how they came to be where they are now.

Finally, in this article, we suggest the basic principles that we have found to be critical in the process, as well as identify problematic areas. Professional development is not accomplished with only one strategy or method, but focus has been on helping ourselves elaborate a theory of households, households' function within a wider sphere, and thus of the sociopolitical context of local schools.

Beyond Culture: The Hybridity of Funds of Knowledge*

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The encounter with persons, one by one, rather than categories and generalities, is still the best way to cross lines of strangeness.

—Mary Catherine Bateson (2000, p. 81)

The concept of culture is one of those seemingly commonsense words that implies a taken-for-granted meaning. After all, we all know what we mean when we talk about Japanese culture, corporate culture, or, on the other hand, to be a cultured individual in art and music. As educators, we are urged to be aware of cultural issues and try to incorporate culturally sensitive pedagogy. Yet, once we start to peel back the layers of this common usage, we find a complex history, a variety of definitions, and wide disparity in theories of culture.

ABBREVIATED HISTORY OF THE CONCEPT OF CULTURE

Because the idea of culture is so embedded in our everyday conversations, it is somewhat startling to realize that it is a relatively recent newcomer in the history of ideas. Raymond Williams (1958), the British social theorist, traced the idea of culture as it developed in Britain from the late eighteenth cen-

*Portions of this chapter appeared in a different form in: González, N. (2004). Disciplining the discipline: Anthropology and the pursuit of quality education. *Educational Researcher*, 33(5), 17–25.

tury. Before this time, the word had mostly signified the growth of an organism, as in *agriculture* or *horticulture*. It then evolved from meaning

"the tending of natural growth," and then, by analogy, a process of human training. But this latter use, which had usually been a culture *of* something, was changed, in the nineteenth century, to *culture* as such, a thing in itself. It came to mean, first "a general state of habit of the mind," having close relations with the idea of human perfection. Second, it came to mean "the general state of intellectual development, in a society as a whole." Third, it came to mean "the general body of the arts." Fourth, later in the century, it came to mean "a whole way of life, material, intellectual and spiritual." It came also, as we know, to be a word which often provoked either hostility or embarrassment. (Williams, 1958, p. xvi)

Williams also claimed that the idea of culture emerged as a contestation to the upheaval caused by the Industrial Revolution. "The idea of culture represented the last line of defense against the idea that society consists of nothing more than mechanistic, market-based transactions, with 'cash payment as the sole nexus' " (Stolzenberg, 2001, p. 443). Thus, culture, in the British tradition, came to be thought of in nonmaterial terms, as the aspirations of the human mind and of artistic endeavor. However, it is in Germany that we find the deepest roots of the culture concept. In late 19th century Germany, we encounter the term "culture-history" which grew out of the earlier emphasis on the "history of the spirit" (Wax, 1993, p. 103). This is significant because the person most responsible for developing the culture concept within U.S. anthropology, Franz Boas, was trained as a natural scientist in Germany, and he later transmitted his ideas about culture as being the "genius of a people."

CULTURE AS THE ANTI-DOTE TO SCIENTIFIC RACISM

Prior to about 1900, "culture" both in the German and in the Anglo-American tradition was heavily influenced by the evolutionary tenets in vogue at the time. Culture was associated with "the progressive accumulation of the characteristic manifestations of human creativity: art, science, knowledge, refinement—those things that freed man from control by nature, by environment, by reflex, by instinct, by habit, or by custom" (Stocking, 1968, p. 201). Evolutionism in social terms conceived of the progress of human societies in terms of evolutionary stages, from the simple (or, in evolutionary terms, more primitive) to the more complex. These stages encompassed all areas of social life: marriage and kinship forms, art and artistic development, forms of government, religious life, the development of myth, and so forth. This form of evolutionism was congruent with the then-accepted ranking of racial groups in terms of intelligence and biogenetic

inheritance. It was a commonly held belief where "leaders and intellectuals did not doubt the propriety of racial ranking—with Indians below whites, and blacks below everybody else" (Gould, 1981, p. 31). Indeed, there was a relegation of "the dark-skinned savage to a status very near the ape" (Stocking, 1973, p. lxx, cited in Gould, 1981, p. 73).

The "scientific" basis for ascribing these hierarchies came from a number of measures, especially craniometry and evolutionary distance from other primates. The measurement of skull size was held to correlate to brain capacity (and hence intellectual capacity), and other anthropometric measurements gauged the "apishness" of traits. Thus, it was unremarkable that in 1890 the anthropologist Brinton, in what was not anthropology's first hour, could claim:

The adult who retains the more numerous fetal, infantile, or simian traits, is unquestionably inferior to him whose development has progressed beyond them. . . . Measured by these criteria, the European or white race stands at the head of the list, the African or Negro at its foot. . . . All parts of the body have been minutely scanned, measured and weighed, in order to erect a science of the comparative anatomy of the races. (Brinton, 1890, p. 48, as cited in Gould, 1981, p. 116; for an overview of this history, see Gould, 1981)

It is against this backdrop that Franz Boas began to argue against the unilinear progression of evolutionary stages and, more importantly, against the racial implications of this argument. His answer to this reigning paradigm was the elaboration of the concept of culture.

Prior to Boas, the culture concept had been defined primarily by E. B. Tylor in his book, *Primitive Culture* (1873/1958). His definition was accepted as the most comprehensive view: "Culture or Civilization, taken in its wide ethnographic sense, is that complex whole which included knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (p. 1). Tylor, however, was also an evolutionist, and he regarded stages of development as the outgrowth of culture. While Boas did not redefine culture, he did put the evolutionary framework to the test of actual rigorous and scientifically tenable ethnographic field work. Through his extensive time in residence with various North American Indian groups, he was able to critique the claims of evolutionary stages and argued for a historical comparative method that recognized the possibility of multiple historically conditioned cultures that often strategically borrowed from each other. This process of cultural diffusion was a challenge to key evolutionary assumptions. If societies borrowed cultural traits, according to Boas, it was not necessary to independently invent each institution anew. Some societies could have invented traits, but others could have borrowed these. In this way, by arguing that human behavior could be conditioned by the historical circumstances in which it arises, he transformed the biogenetic argument of human development. If something extrinsic to the human or-

ganism, something called "culture," could account for human behavior, then a powerful argument could be made for the relativism of human societies. No longer could race and hierarchical racial classifications be scientifically defensible. Thus, "by changing the relation of 'culture' to man's evolutionary development, to the burden of tradition, and to the processes of human reason, [Boas] transformed the notion into a tool quite different from what it had been before" (Stocking, 1968, p. 233).

The implications of this paradigm shift were enormous. Although many social scientists continued to see race as a way to account for human differences, "Boas, almost single-handedly, developed in America the concept of culture, which, like a powerful solvent, would in time expunge race from the literature of social science" (Degler, 1991, p. 71). Yet, this does not mean that social science was marching evenly, onward and upward, toward a vision of racial and social justice. In fact, there are some who argue that the attempt to expunge race from social science, by assigning it to biology, actually resulted in a continuation of scientific racism (Visweswaran, 1998). Because culture came to stand for race, without a sociohistorical construction of race, "culture is asked to do the work of race" (p. 76). In fact, the concept of culture can make race invisible, and race becomes "a metonym for culture; and it does so only at the price of biologizing what is culture or ideology" (Appiah, 1986, p. 36, as cited in Visweswaran, 1998, p. 76).

PROLIFERATION OF THE USAGE OF CULTURE

As Boas and his students transformed the use of culture, it became in many ways the central organizing concept of anthropology. As such, it was differentiated and elaborated in myriad ways. By 1952, in a well-known review of definitions of culture, the anthropologists Alfred Kroeber and Clyde Kluckhohn discovered more than one hundred and fifty definitions of "culture." Even though there was no consensus among cultural anthropologists in terms of a definition of or a theorizing of culture, there eventually came to be an accepted view that "everyone knew what it was." Says George Spindler, one of the founders of the field of Anthropology and Education:

In the 1940s, when I began my fieldwork, everybody knew what culture was—culture was what everybody had in a predictable, bounded sense; everyone was recognizable by their laundry list of cultural traits. (Spindler, 1996)

Indeed, anthropology came to be dominated, from about 1940 to about 1980, by a view of culture that emphasized a holistic and integrated view of culture, a neat "package deal . . . [in which] cultures were believed to have neat boundaries, inside of which were all sorts of traditions and structures,

such as marriage practices, gender roles, religion, death rituals, child-rearing practices, language, power, and authority structures, food, and so forth" (Henze & Hauser, 1999).

In addition, there was an assumption that culture provided particular rules for behavior that everyone in a culture abided by. Our culture determined our behavior, and culture was thought of in a holistic and pervasive sense. Although this thread of cultural determinism was woven through most concepts of culture, there did emerge a proliferation of approaches to culture. In 1974, Roger Keesing published an article that outlined the general strands of theories of culture at the time. The two main divisions, between what might be termed *materialist* (culture is inside the head) and *materialist* (culture is a response to dealing with the material conditions of existence) theories of culture, formed a bifurcation in the anthropological understanding of culture. On the one hand, the materialists saw culture as an adaptive system that connected human communities to their ecological and subsistence settings. In this sense, culture was a mechanism that had allowed human groups to survive in a number of ecosystems. Thus, "technology, subsistence economy, and elements of social organization directly tied to production are the most adaptively central realms of culture [and] . . . economies and their social correlates [were viewed] as primary, and ideational systems—religion, ritual, world view [were viewed as] secondary, derived, epiphenomenal" (Keesing, 1974, p. 76).

On the other end of the divide, some anthropologists privileged "ideational" theories of culture, that is, cultures as systems of ideas. Here Keesing divides this camp into three major groups: cultures as *cognitive systems*, cultures as *structural systems*, and cultures as *symbolic systems*. Within the first camp, cultures were seen as systems of knowledge. Ward Goodenough, one of the prime proponents of this view, summarized this perspective:

A society's culture consists of whatever it is one has to know or believe in order to operate in a manner acceptable to its members. Culture is not a material phenomenon, it does not consist of things, people, behavior or emotions. It is rather an organization of these things. It is the form of things that people have in mind, their models for perceiving, relating and otherwise interpreting them. (Goodenough, 1957, p. 167, as cited in Keesing, 1974)

A further variation was cultures as structural systems, which posited that universal processes of the human mind develop diverse but formally similar patterns. The logic of relations and transformations provides an order that can transcend boundaries of language and custom. Thus, proponents of this approach (most notably Claude Lévi-Strauss) were more interested in human Culture (with a capital C) than in individual cultures and saw the

human mind as containing structural elements that would give rise to similar formations of myth, symbolism, and social structure.

The paradigm that would prove most alluring to idealational anthropologists was the interpretive turn instantiated in large part by Clifford Geertz. For Geertz, as described by Keesing (1974, p. 79), meanings are not "in people's heads," but are shared between social actors. In this sense, they are public, not private. For Geertz, to study culture is to study shared codes of meaning, a semiotic interpretation of ongoing practices and "webs of significance." His major metaphor was to treat culture as "an assemblage of texts," and the idea of textual representation and interpretation of cultures took root (Geertz, 1973).

Dividing these two approaches to culture—anthropology as an empirical science or as a humanist interpretive field—was a deeper issue.

CULTURE WITHIN ANTHROPOLOGY AND EDUCATION

Central to our concern here, though, is how the concept of culture came to be transferred into the educational arena. Although one might suppose that the concept of culture as applied to diverse populations would be a positive affirmation of diversity, this was not always the case. In fact, several trends viewed the culture of poor and minoritized students as the cause of educational failure. Because culture was now viewed as a holistic configuration of traits and values that shaped members into viewing the world in a particular way, these rules for behavior among diverse populations were seen as the root of educational failure. By explaining educational achievement disparities and differential social mobility through recourse to forces within the culture (in the domestic realm and hence outside of the public purview), the dominant writing of social theory legitimized the marginalization of many students. The idea that poor students shared a "culture of poverty" that was considered to be antithetical to school achievement led to the development of "cultural deficit" models in schooling. Poor and minoritized students were viewed with a lens of deficiencies, substandard in their socialization practices, language practices, and orientation toward scholastic achievement (see Valencia, 1997, for an overview of the evolution of deficit paradigms).

Even today, although we would hope that these deficit conceptualizations would belong to the dustbin of history, we can still find evidence in some teacher training programs and in the popular mind that students' culture within their households is viewed as deficient in cognitive and social resources for learning. We remember the comments that caused an affirmative action furor when a University of Texas law professor, Lino Graglia,

claimed that minority students are not academically competitive with whites in selective institutions, saying "It is the result of primarily cultural effects. They have a culture that seems not to encourage achievement. Failure is not looked upon with disgrace" (Mantos, 1997). Clearly the culturalological deficit conceptions of how the "other" lives and thinks are alive and well.

Within the field of Anthropology and Education, the emphasis on culture took another turn. As academic attention was directed to educational disparities of minoritized children, there emerged a discourse that centered on educators coming to "know the culture" of their students. Predicated on the assumption that classroom cultural and linguistic patterns should be in congruence with cultural and linguistic community patterns, researchers and practitioners sought to bridge what came to be regarded as the discontinuity or mismatch gap. This approach was an outgrowth of the cultural difference approach that sought to counter and debunk cultural deficit concepts. The tenets of this extension of culture held that school culture was linguistically and/or materially a different cultural world for underrepresented children and that educators should seek to engage in community-based linguistic and cultural patterns. Although these were powerful concepts that held sway for almost 30 years, this paradigm nonetheless focused primarily on microinteractional processes—that is, on classroom and language practices—and generally assumed that all members of a particular group share a normative, bounded, and integrated view of their own culture. This approach masked the underlying issues of economic and power relations between dominant and minoritized populations and sought answers through "fixing" teachers' interactional patterns.

Two works emerged in the late 1970s that interrogated some of these assumptions. The first was a critique formulated by John Ogbu (1978) who proposed that some students (recent immigrant students for instance) who are culturally very different tend to do well in school, while minoritized populations do not fare as well. He argued for a "cultural frame of reference" toward schooling that implicated historical conditions, echoing in some way Boas's earlier admonition to look carefully at particular histories. Ogbu elaborated his theme to account for the reasons that "caste-like" involuntary minorities often see school in negative terms, while historical circumstances cast a different light on schooling for immigrant students, who are voluntary (having chosen to immigrate) minorities. This formulation shifted the gaze from the micro to the macro, and questioned larger structural issues. Levinson and Holland (1996) "in reflecting on the impact of Ogbu's reconfiguration, noted how the cultural difference approach ignored relations of power:

Neglecting to emphasize how communication styles, cognitive codes, and so on were the cultural practices of *variously* empowered groups, historically pro-

duced within relations of power, the cultural difference approach tended to essentialize the cultural repertoires of minoritized groups. As Ogbu (1981) has pointed out, the absence of such a critical analysis permitted confident reformists to attempt amelioration of school-based conflicts in cultural styles through remedial programs and "culturally responsive" pedagogies. The deeper structural context of cultural production and school failure remained obscure and largely unaddressed. (p. 8)

A second problematization of the idea of culture emerged with the work of Paul Willis in his book *Learning to Labour* (1977). In this work, Willis took on the concept of *agency*, that is, how individuals actively appropriate certain elements of cultural practices, while discarding others. In a detailed ethnographic study of working-class "lads" in England, he formulated the notion of "cultural production." Within this framework, students were seen as resisting certain structures and as active agents in constructing their own identities and ideologies. They were not passive recipients of reproductionist modes of culture. As Willis wrote:

Social agents are not passive bearers of ideology, but active appropriators who reproduce existing structures only through struggle, contestation and a partial penetration of those structures. (p. 175)

Implicit in both of these perspectives was the assumption that students were not passive receptacles of an immutable culture. In Willis' approach, students were able to appropriate or discard cultural elements in the cultural production of their own identities. Ogbu's work focused on historical, political, and economic forces that produced particular cultural frames of reference for schooling. Although Ogbu has been criticized, correctly in my view, for repeating the error of essentializing and typologizing groups, in both these approaches we see that the concept of culture, rather than forcing individuals into prefabricated molds, was seen as an adaptive mechanism, a way for students to exercise some agency in their encounters with schooling. Culture had expanded into realms that posited individuals not as "cultural dopes" doomed to endlessly reproduce a static and unyielding culture, but as manipulating and tinkering with cultural elements, although not always to their educational benefit.

ANTHROPOLOGICAL CRITIQUES OF CULTURE

To further fragment the culture concept, anthropologists began critically reviewing the whole idea of culture, which resulted in a major paradigm shift in anthropology. Culture had lost much of its utility as a way to describe the diversity within societies. It came to be viewed as freighted with

excess baggage of its historical use and abuse and in some ways was considered more of a burden than a useful tool. Some anthropologists suggested doing away with the term altogether. Lila Abu-Lughod, in her essay "Writing Against Culture," explained that individuals often improvise daily decisions and do not always adhere to cultural norms and prescriptives:

The particulars suggest that others live as we perceive ourselves living, not as robots programmed with "cultural" rules, but as people going through life agonizing over decisions, making mistakes, trying to make themselves look good, enduring tragedies and personal losses, enjoying others, and finding moments of happiness. (1991, p. 58)

For the past 15 years or so, anthropologists began to write "against" culture (Abu-Lughod, 1991), "beyond" culture (Gupta & Ferguson, 1992), "critiquing" culture (Marcus & Fischer, 1986), "revisiting" culture (Keesing, 1994), putting "culture in motion" (Rosaldo, 1989), examining the interstitial space for "locating" culture (Bhabha, 1995), as well as the "breakdown" (Fox, 1995) and "demise" (Yengoyan, 1986) of the culture concept, and "forgetting" culture (Brighman, 1995). As is evident, anthropologists have not moved in uniform step toward any single vision of what does or does not constitute culture. It continues to be contested terrain, with convergences, divergences, as well as exit points.

One alternative to the static and frozen ideas about human groups, processual approaches, began to take shape. Processual approaches, as Renato Rosaldo (1989) noted, stress the case history method and show how ideas, events, and institutions interact and change through time. Such studies "more nearly resemble the medical diagnosis of a particular patient rather than law-like generalizations about a certain disease . . . and resist frameworks that claim a monopoly on truth" (p. 92). More and more, culture was viewed as dynamic, interaccional, and emergent.

THE HYBRIDITY OF CULTURE

Increasingly, the boundedness of cultures gave way to an idea of the inter-culturality and hybridity of cultural practices. Often these concepts were predicated on examining borderlands, which are often riddled with emergent practices and mixed conventions that do not conform to normativity. Borderlands came to be a fertile metaphor for observing flux and fluidity, literally and metaphorically. Gupta and Ferguson (1992), for instance, examined the "assumed isomorphism of space, place and culture," noting that:

The fiction of cultures as discrete object-like phenomena occupying discrete spaces becomes implausible for those who inhabit the borderlands. Related to border inhabitants are those who live a life of border crossings—migrant

workers, nomads, and members of the transnational business and professional elite. What is "the culture" of farm workers who spend half a year in Mexico and half a year in the United States? (p. 7)

Another theorist, Homi Bhabha, in his provocative work *The Location of Culture* (1995), argued for examining "border lives" as exemplars of moments "of transit where space and time cross to produce complex figures of difference and identity, past and present, inside and outside, inclusion and exclusion" (p. 1). It is these "in-between" spaces, he argued, that

provide the terrain for elaborating strategies of selfhood—singular or communal—that imitate new signs of identity, and innovative sites of collaboration, and contestation, in the act of defining the idea of society itself. (p. 1)

Hybridity is closely tied in with economic globalization, that is, the penetration of goods and services into every corner of the globe. Increasingly students draw from an intercultural and hybrid knowledge base, appropriating multiple cultural systems, as youth culture permeates greater and greater spheres.

POSTMODERNISM AND POSTSTRUCTURALISM

Within a postmodern perspective, the idea of general models and grand theories gave way to considering contradiction and ambiguity and local and contingent ways of positioning knowledge. The idea of knowledge as being intimately connected with power was theorized by Michel Foucault, and an increasing emphasis on textuality and "discourse" came to dominate discussions about the cultural. The notion of "discursive field," also emerging from the writings of Foucault, became theoretically ubiquitous. In addition, a suspicion of science and of the positivistic assumption that an objective understanding of the social world is possible created a climate in which texts and representations were examined for the way in which they constructed knowledge claims. Discussions of culture gave way to the exploration of discourses that have the capacity to construct, rather than merely reflect, our realities. In this perspective, a scientific study of culture is not only impossible, but unworkable.

IMPLICATIONS FOR EDUCATORS

So, where does this leave us as educators, trying to make use of a powerful concept that in many ways cannot be replaced? Do we throw out the baby with the bathwater? How do we account for diversity if the central concept

that led us to that place is both vilified and marginalized? In a recent series of essays on culture, anthropologists took up a conversation that has not yet been resolved. In a preface to the article "When: A Conversation With Culture" (Borofsky, Barth, Shweder, Rodseth, & Stolzenberg, 2001), the editors of *American Anthropologist* made this observation:

For decades now culture has been a topic anthropologists argue about: WHAT it does or does not mean. If it should or should not constitute a central concept of the discipline. This essay steps outside these arguments to rephrase the issue and our approach to it. It explores WHEN it makes sense to use the cultural concept. (p. 432)

In the words of one author in this series of essays:

The concept of culture serves the basic need of naming such ineffable and inexplicable features of human existence as "meaning" and "spirit" and living together with others. Stop thinking of it as a name for a thing, and come to view it instead as a placeholder for a set of inquiries—inquiries which may be destined never to be resolved. (Stolzenberg, 2001, p. 444)

Perhaps, therefore, we can think of culture as a set of inquiries. Indeed, in our work this is very much the position we have taken in considering the hybridity of funds of knowledge.

The struggle of anthropologists of education to deal with the practical and ever-present effects of practicing theories and theorizing practices belies the unmet challenge to anthropology: As anthropology continues to privilege the academic and theoretical dimensions of the discipline, very often the pragmatic, practice-based implications of those theories are not well thought out, or, more commonly, they are ignored. In the debate over the abandonment of the heuristic value of culture, there is never any mention of the fact that for teachers, culture has been a central unifying concept that has been engaged in both reactive and proactive ways. To deconstruct culture because of the theoretical abuse and misuse of the term completely obscures the battle that brought culture to the forefront in the first place: How do we account for human diversity without recourse to a discourse of biogenetic difference? What tools can be put in the hands of educators that can replace a concept that went so far in breaking down barriers of racial and cultural divisiveness? Can we, in our anthropological theoretical conceit, claim that only theory and not the implications of that theory are the focus of our concern? We must always be ready to lay out the "So what?" question to our theoretical formulations, or risk the very abuse and misuse of anthropological theory that is now bemoaned. If we do not lay out the implications ourselves, think deeply and thoughtfully about the ways in

which our use of theory will affect real students in real classrooms in real urban areas, we are neglecting our ultimate responsibility.

As anthropologists, we must clearly be aware of the call for civic scholarship, for a scholarship that is not validated by doing fieldwork thousands of miles away, but looks to the communities that surround our universities and the schools that are the basic building blocks of those communities. As this retrospective look on culture has suggested, anthropology can bring unique theoretical and methodological insights into the studies of schools and schooling. One such key anthropological insight was developed early on that suggests that one must look beyond the school itself to understand the local meanings and impact of schooling.

CULTURE AS THE LIVED EXPERIENCES OF STUDENTS: FUNDS OF KNOWLEDGE

What we describe in this book is an alternative perspective on students' lives and background. This is not to suggest that we are, in turn, replacing concepts of culture with another concept, or implying that this is all that is needed to address the pressing issues of schools. However, it is one way in which the context for respectful relationships between schools and communities is fostered. In this perspective, we have interrogated many of the assumptions of a shared culture, and have chosen instead to focus on "practice," that is, what it is that people do, and what they say about what they do. This processual approach coalesces with our use of qualitative and ethnographic methods to counter deficit models. The bridging of the chasm between household and school, the instantiation of reciprocal relationships between parents and teachers, the pedagogical validation of household knowledge with which students come to school, and the development of teachers as researchers, go beyond the view of culture as a "problem." Rather than simply documenting a mismatch between the school and the community, we have actively engaged households in a dialog that can address the often unequal relations between school and community. In addition, teachers have developed skills as researchers, activating their own knowledge bases by engaging in professional development that can directly affect their classroom practice.

The concept of culture emphasized in schools has focused on how shared norms shape individual behavior and on discovering standardized rules for behavior. However, when we move away from uniform categorizations of a shared group culture, issues of contestation, ambiguity, and contradiction are often the focus of ethnographic analysis. Initially, as we moved in and out of our encounters with culture, we adopted processual approaches to culture that take into account multiple perspectives that

could reorient educators to consider the everyday lived experiences of their students. Processual approaches focus on the processes of everyday life, in the form of daily activities, as a frame of reference. These daily activities are a manifestation of particular historically accumulated funds of knowledge that households possess. Instead of individual representations of an essentialized group, household practices are viewed as dynamic, emergent, and interactional. Sally Falk Moore, an early proponent of the term *processual*, explained that

process conveys an analytic emphasis on continuous production and construction without differentiating in that respect between repetition and innovation. A process approach does not proceed from the idea of a received order that is then changed. Process is simply a time-oriented perspective on both continuity and change. . . . An event is not necessarily best understood as the exemplification of an extant symbolic or social order. Events may equally be evidence of the ongoing dismantling of structures or of attempts to create new ones. Events may show a multiplicity of social contestations and the voicing of competing cultural claims. (Moore, 1987, p. 729)

The issue of voicing competing claims is particularly important because critical educators have begun to examine seriously the issue of student experience as a central component in developing a theory of schooling. The pedagogical applications of entering households with an eye toward using the knowledge base of children draws on this concern. Giroux noted that "the ways in which student experience is produced, organized, and legitimated in schools has become an increasingly important theoretical consideration for understanding how schools function to produce and authorize particular forms of meaning" (1992, p. 180). Thus the validation of the experiences of students and the lived practices of households is an important aspect of critical pedagogy. For these theorists, pedagogy is not defined as simply something that goes on in schools. Rather, it is posited as central to any practice that "takes up questions of how individuals learn, how knowledge is produced, and how subject positions are constructed" (p. 81). The issue of student voice is paramount to these critical theorists, and pedagogy in this context can draw on local histories and forms of knowledge.

DISCOURSE AND POWER

In addition to classroom practice, a second domain that was powerfully affected by household ethnographic encounters centers on the parental narratives that were evoked during the dialog between parents and teachers. In the attempt to discover household knowledge on its own terms rather than as a reflection of group knowledge, teachers and parents engaged in open-

ended interviews that detailed the life histories of the households. As parents responded with personal narratives concerning their own unique and singular life courses, a heightened historical consciousness began to emerge. The articulation of the trajectory that brought parents to be where they are now engendered an awareness of the historical character of their experiences. In this way, the Freirean notion of dialog as an emancipatory educational process can be developed in the households (Freire, 1981). As other researchers have stated, ethnography can be seen as a tool for social action (Savage, 1988) that can enable persons to transform the limitations of their circumstances. In the powerful dialog that this ethnographic interview can spark, parents can and did find a passageway to the schools. As the teachers validate the households' experiences as those from which rich resources or funds of knowledge can be extracted, parents themselves come to authenticate their skills as worthy of pedagogical notice.

The discursive properties of the household interviews provide a viable vehicle for reflection and consciousness. One parent, after relating her own educational experiences, opted to return to continue her curtailed education, and others, having developed a relationship of *confianza* with the teachers, reaffirmed their own abilities in a redefinition of how educational systems could work. Although parental involvement is the mantra of every educational reform program, it is often categorically and narrowly defined as parents (usually the mothers) entering the classroom to facilitate the teacher. This is the barometer of parental interest and support. Yet, if educational institutions are serious about creating partnerships with the community, the relationship cannot be an asymmetrical alliance, with one component defining and limiting the role of its counterpart.

CONCLUSIONS

As discourses come to recognize the situated nature of knowledge and the partiality of all knowledge claims, the metaphor of borders and bordercrossers has been foregrounded. However, the ultimate border—the border between knowledge and power—can be crossed only when educational institutions no longer rely culture, when lived experiences become validated as a source of knowledge, and when the process of how knowledge is constructed and translated between groups located within nonsymmetrical relations of power is questioned. As minoritized students continue to be subjected to standardized and prescriptivist tests, the issue of whose knowledge and whose voice are embedded in these measures can be answered only as we cross this furthest border between knowledge and power. We cannot claim that because teachers make connections to households that students will not be enmeshed in high-stakes testing, nor will some funds of

knowledge be considered more valued than others. Yet, the very act of transcending the boundaries of the classroom in itself ruptures the flow of circulating discourses of deficiency and difference (McIntyre, Rosebery, & González, 2001).

In summary, theory that has been developed within the interpretive paradigm of anthropology has often been criticized as irrelevant to practical and applied approaches to social issues. The methodology that has been described here assumes a postmodern perspective on issues of local knowledge, multivocality, and hegemonic relations. Yet, within this discourse, there has emerged a viable yet reflexive method for addressing the multiply mediated worlds of "the other." Rather than assuming a mosaic or tapestry approach to multicultural education, we acknowledge competing circulating discourses and emphasize that "practice" supplies us with a panorama of activities that may or may not coincide with normative cultural behavior. The interculturality of households, drawing on multiple cultural systems and using these systems as strategic resources, emerges from this perspective. In addition, the notion of engendering dialogs of historical consciousness has a profound effect on interlocutors. As a corollary to this kind of validation, a further parameter of transformation was implemented in importing household knowledge into classroom practice. One significant point should be stressed, however. The purpose of drawing on student experience with household knowledge is not to merely reproduce household knowledge in the classroom. Working-class students are not being taught construction, plumbing, or gardening. Instead, by drawing on household knowledge, student experience is legitimated as valid, and classroom practice can build on the familiar knowledge bases that students can manipulate to enhance learning in mathematics, social studies, language arts, and other content areas.

But the ultimate value of going beyond culture is that it opens up spaces for the construction of new fields wherein students are not locked into an assumed unilineal heritage. It allows for variability within populations rather than only between populations. More importantly, the funds of knowledge of a community occupy that space between structure and agency, between the received historical circumstances of a group, and the infinite variations that social agents are able to negotiate within a structure.

In the following chapters, we provide a picture of the evolution of the funds of knowledge concept, and examples of how teachers can use communities' funds of knowledge in proactive and life-affirming ways, not just as a source of differences that are compared with mainstream practices.

As we focus on the social networks that interconnect households with their social environments, we do not attempt to restrict the parameters of interaction of these often overlapping spheres of influence. As the chapters in this volume indicate, students move in and out of their social networks

and draw resources and funds of knowledge from the intersection of these activities. For example, in an attempt to focus on "kid-based funds of knowledge," Jan Nesper (1997) describes how multiple funds of knowledge and social networks can coalesce in one activity setting:

Earl's computer use was at the intersection of a family network (he was learning with his mother who was taking computer classes), a friendship network (with Diane), and various commercial networks (the games and software he bought). Everyday life is made from such articulations. In this case, the three networks blended together to create a heterogeneous fund of knowledge that connected Earl and his friends to distant and unknown groups of kids (who would also be fashioning identities in interaction with games and computers) and shaped their relationships to one another in their immediate environment. (p. 171)

Using the concept of funds of knowledge as a heuristic device provides teachers with a pragmatic avenue to engage with their students' lives. It allows the possibility of seeing beyond the classroom and glimpsing the circulating discourses and shifting fields of power that shape students' lives. Most importantly, we are able to begin to conceptualize the hybridity that emerges from the intersection of diverse funds of knowledge. To wrap back around to the quote from Mary Catherine Bateson at the beginning of this chapter, it is only through face-to-face interaction and one-to-one encounters with persons, through a mutually respectful dialog, that we can cross the constructions of difference.

REFLECTION QUESTIONS

1. What is meant by a "processual approach"?
2. How does a funds of knowledge approach differ from the idea of culture?
3. How can the idea of culture be problematic?

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Formation and Transformation of Funds of Knowledge*

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Our purpose in this work is to provide a broad anthropological context for possible educational reforms of the public schools that serve U.S.-Mexican populations¹ in the southwestern United States. Our position is that public schools often ignore the strategic and cultural resources, which we have termed *funds of knowledge*, that households contain. We argue that these funds not only provide the basis for understanding the cultural systems from which U.S.-Mexican children emerge, but that they also are important and useful assets in the classroom. Many assumptions about these cultural systems informing policy and practice in public schools are not supported by the actual culture of these populations, since, as Greenberg has said,

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¹We use the term *Mexican* to describe both those born in Mexico and those of Mexican parentage born in the United States. Although *Chicano* or *Mexican American* are also used for those born in the United States of Mexican heritage, Mexican is the generally preferred term used by the U.S.-born population. Although there is an extended discussion that links the rise of ethnic consciousness to the collapse of rural and commercial control by Mexicans in the United States in the 1880s (see Camarillo, 1979; Griswold de Casillo, 1984) and their encasement in urban ghettos, our position is that this leaves out the importance of cross-border relations both due to the constant reintroduction of kin and culture from Mexico and due to the obvious retention of the Spanish language over time. Mexican households continue to define themselves as Mexicans culturally and, more important, socially (see Garcia, 1982, pp. 295-314; Véllez-Ibáñez, 1983).

Funds of Knowledge for Teaching: Using a Qualitative Approach to Connect Homes and Classrooms*

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We form part of a collaborative project between education and anthropology that is studying household and classroom practices within working-class, Mexican communities in Tucson, Arizona. The primary purpose of this work is to develop innovations in teaching that draw on the knowledge and skills found in local households. Our claim is that by capitalizing on household and other community resources, we can organize classroom instruction that far exceeds in quality the rote-like instruction these children commonly encounter in schools (see e.g., Moll & Greenberg, 1990; Moll & Díaz, 1987).

To accomplish this goal, we have developed a research approach that is based on understanding households (and classrooms) qualitatively. We use a combination of ethnographic observations, open-ended interviewing strategies, life histories, and case studies that, when combined analytically, can portray accurately the complex functions of households within their sociohistorical contexts. Qualitative research offers a range of methodological alternatives that can fathom the array of cultural and intellectual resources available to students and teachers within these households. This approach is particularly important in dealing with students whose households are usually viewed as being "poor," not only economically but in terms of the quality of experiences for the child.

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Our research design attempts to coordinate three interrelated activities: the ethnographic analysis of household dynamics, the examination of classroom practices, and the development of after-school study groups with teachers. These study groups, collaborative ventures between teachers and researchers, are settings within which we discuss our developing understanding of households and classrooms. These study groups also function as "mediating structures" for developing novel classroom practices that involve strategic connections between these two entities (see Moll et al., 1990).

In this chapter we discuss recent developments in establishing these strategic connections that take the form of joint household research between classroom teachers and university-based researchers and the subsequent development of ethnographically informed classroom practices. We first present a summary of our household studies and the findings that form the bases of our pedagogical work. We then present an example of recent research between a classroom teacher and an anthropologist, highlighting details of their visit to a household, and the teacher's development of an instructional activity based on their observations. We conclude with some comments on the work presented.

SOME BASIC FINDINGS

As noted, central to our project is the qualitative study of households. This approach involves, for one, understanding the history of the border region between Mexico and the United States and other aspects of the sociopolitical and economic context of the households (see e.g., Vélez-Bañez, 1993; see also Heyman, 1990; Martínez, 1988). It also involves analyzing the social history of the households, their origins and development, and most prominently for our purposes, the labor history of the families, which reveals the accumulated bodies of knowledge of the households (see Vélez-Bañez & Greenberg, 1989).

With our sample,¹ this knowledge is broad and diverse, as depicted in abbreviated form in Table 4.1. Notice that household knowledge may include information about farming and animal management, information associated with households' rural origins, or knowledge about construction and building, related to urban occupations, as well as knowledge about many other matters, such as trade, business, and finance on both sides of the border (see e.g., Moll & Greenberg, 1990). We use the term *funds of knowledge* to refer to these historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being (Greenberg, 1989; Tapia, 1991; Vélez-Bañez, 1988).

¹Our sample includes households of students in the project-teachers' classrooms, as well as students from other classrooms in the same general community. In total, including previous projects, we have observed in approximately 100 homes.

TABLE 4.1
A Sample of Household Funds of Knowledge

<i>Agriculture and Mining</i>	<i>Material and Scientific Knowledge</i>
Ranching and farming	Construction
Horse riding skills	Carpentry
Animal management	Roofing
Soil and irrigation systems	Masonry
Crop planting	Painting
Hunting, tracking, dressing	Design and architecture
Mining	Repair
Timbering	Airplane
Minerals	Automobile
Blasting	Tractor
Equipment operation and maintenance	House maintenance
<i>Economics</i>	<i>Medicine</i>
Business	Contemporary medicine
Market values	Drugs
Appraising	First aid procedures
Renting and selling	Anatomy
Loans	Midwifery
Labor laws	Folk medicine
Building codes	Herbal knowledge
Consumer knowledge	Folk cures
Accounting	Folk veterinary cures
Sales	
<i>Household Management</i>	<i>Religion</i>
Budgets	Catechism
Child care	Baptisms
Food	Bible studies
Appliance repairs	Moral knowledge and ethics

Relationships

Our approach also involves studying how household members use their funds of knowledge in dealing with changing, and often difficult, social and economic circumstances. We are particularly interested in how families develop social networks that interconnect them with their social environments (most importantly with other households), and how these social relationships facilitate the development and exchange of resources—including knowledge, skills, and labor—that enhance the households' ability to survive or thrive (see e.g., Moll & Greenberg, 1990; Vélez-Bañez & Greenberg, 1989; see also Keefe & Padilla, 1987).

Two aspects of these household arrangements merit emphasis here, especially because they contrast so sharply with typical classroom practices. One is that these networks are flexible, adaptive, and active, and may in-

volve multiple persons from outside the homes: In our terms, they are "thick" and "multistranded," meaning that one may have multiple relationships with the same person or with various persons: The person from whom the child learns carpentry, for example, may also be the uncle with whom the child's family regularly celebrates birthdays or organizes barbecues, as well as the person with whom the child's father goes fishing on weekends.

Thus, the teacher in these home-based contexts of learning will know the child as a whole person, not merely as a student, taking into account or having knowledge about the multiple spheres of activity within which the child is enmeshed. In comparison, the typical teacher-student relationship seems thin and single-stranded, as the teacher knows the students only from their performance within rather limited classroom contexts.

Additionally, in contrast to the households and their social networks, the classrooms seem encapsulated, if not isolated, from the social worlds and resources of the community. When funds of knowledge are not readily available within households, relationships with individuals outside the households are activated to meet either household or individual needs. In classrooms, however, teachers rarely draw on the resources of the funds of knowledge of the child's world outside the context of the classroom.

A second key characteristic of these exchanges is their reciprocity. As Véléz-Ibáñez (1988) has observed, reciprocity represents an "attempt to establish a social relationship on an enduring basis. Whether symmetrical or asymmetrical, the exchange expresses and symbolizes human social interdependence" (p. 142). That is, reciprocal practices establish serious obligations based on the assumption of *confianza* (mutual trust), which is reestablished or confirmed with each exchange and leads to the development of long-term relationships. Each exchange with relatives, friends, and neighbors entails not only many practical activities (everything from home and automobile repair to animal care and music) but constantly provides contexts in which learning can occur—contexts, for example, where children have ample opportunities to participate in activities with people they trust (Moll & Greenberg, 1990).

A related observation is that children in the households are not passive bystanders, as they seem in the classrooms, but active participants in a broad range of activities mediated by these social relationships (see La Fontaine, 1986). In some cases, their participation is central to the household's functioning, as when the children contribute to the economic production of the home, or use their knowledge of English to mediate the household's communications with outside institutions, such as the school or government offices. In other cases they are active in household chores, such as repairing appliances or caring for younger siblings.

Our analysis suggests that within these contexts, much of the teaching and learning is motivated by the children's interests and questions; in con-

trast to classrooms, knowledge is obtained by the children, not imposed by the adults. This totality of experiences, the cultural structuring of the households, whether related to work or play, whether they take place individually, with peers, or under the supervision of adults, helps constitute the funds of knowledge children bring to school (Moll & Greenberg, 1990).

FUNDS OF KNOWLEDGE FOR TEACHING

Our analysis of funds of knowledge represents a positive (and, we argue, realistic) view of households as containing ample cultural and cognitive resources with great potential utility for classroom instruction (see Moll & Greenberg, 1990; Moll et al., 1990). This view of households, we should mention, contrasts sharply with prevailing and accepted perceptions of working-class families as somehow disorganized socially and deficient intellectually; perceptions that are well accepted and rarely challenged in the field of education and elsewhere (however, see McDermott, 1987; Moll & Díaz, 1987; Taylor & Dorsey-Gaines, 1988; see also Véléz-Ibáñez, 1993).

But how can teachers make use of these funds of knowledge in their teaching? We have been experimenting with the aforementioned arrangements that involve developing after-school settings where we meet with teachers to analyze their classrooms, discuss household observations, and develop innovations in the teaching of literacy. These after-school settings represent social contexts for informing, assisting, and supporting the teachers' work; settings, in our terms, for teachers and researchers to exchange funds of knowledge (for details, see Moll et al., 1990).²

In analyzing our efforts, however, we realized that we had relied on the researchers to present their findings to the teachers and to figure out the relevance of that information for teaching. Although we were careful about our desires not to impose but to collaborate with teachers, this collaboration did not extend to the conduct of the research. In our work with teachers, at least as far as household data were concerned, we relied on a "transmission" model: We presented the information, teachers received it, without actively involving themselves in the development or production of this knowledge. But how could it be otherwise? Was it feasible to ask teachers to become field researchers? What would they get out of it? Could they develop similar insights to those developed by the anthropologists in our research team? What about methods? Could they, for example, with little experience, understand the subtleties of ethnographic observations?

²For similar ideas regarding the development of teacher "labs" or activity settings, see, for example, Berliner (1985), Laboratory of Comparative Human Cognition (1982), and Tharp and Gallimore (1988). The creation of study groups is also a common practice among whole-language teachers and researchers (see Goodman, 1989).

In what follows we present a case example from our most recent work that addresses these questions. The goal of the study was to explore teacher-researcher collaborations in conducting household research and in using this information to develop classroom practices. As part of the work, 10 teachers participated in a series of training workshops on qualitative methods of field notes, data management, and analysis.³ Each teacher (with two exceptions) then selected for study three households of children in their classrooms. In total, the teachers visited 25 households (the sample included Mexican and Yaqui families) and conducted approximately 100 observations and interviews during a semester of study (for details, see Vélz-Ibáñez, Moll, Gonzalez, & Neff, 1991).

Rather than provide further technical details about this project, however, we present an edited transcript from a recent presentation⁴ by a teacher (Cathy Amanti) and an anthropologist (Deborah Neff) who collaborated in the study. They describe their experiences conducting the research and provide a revealing glimpse of the process of using qualitative methods to study households and their funds of knowledge.

STUDYING HOUSEHOLD KNOWLEDGE

In their presentation, Amanti and Neff first described some of their concerns in conducting the work, including how their assumptions and previous experiences may have influenced their observations. They also described their planning. Notice how they decided to divide the methodological responsibilities for conducting the interviews and observations.

Deborah Neff: We are going to share with you some of our experience in working as a team doing household interviews. We have chosen the

³Field notes are generally descriptive to provide context and background information, whereas interviews, usually based on a questionnaire, focus on topics of specific relevance to the project, such as the participation of children in a household activity. In the project described herein, all notes were prepared and coded using word-processing programs, and laptop computers were made available to the teachers. Anthropologists and graduate students assisted the teachers in interviewing and provided feedback on the consistency, completeness, and depth of the field notes. Given the constraints on teachers' time, we recommend that they obtain release time from teaching to conduct observations and interviews, and record and edit field notes. Release time, we should point out, is routinely granted for other purposes, such as participating in inservice workshops, so it very well could be used for documenting the knowledge base of the students' homes.

⁴The presentation (August 5, 1991) was before approximately 200 principals and other administrators (including the new superintendent) of the local school district.

López family, a pseudonym, as the focus of this brief talk. The Lópezes are the parents of one of Cathy's students, whom we will call Carlos.

In going into the homes, we carry with us cultural and emotional baggage that tends to color our understanding of interviews and observations. We have fears and assumptions, and perhaps misunderstandings. I for one did not know exactly what to expect when I first went into the López home with Cathy. I had heard talk of dysfunctional homes, lack of discipline, lack of support systems and so forth, but remained skeptical of these negative characterizations. Having done fieldwork before, I was accustomed to this kind of uncertainty.

Cathy Amanti: I, however, was nervous because I was going out in the field for the first time with someone who's had experience doing this type of research. Deborah had experience doing ethnography. I did not, and I was concerned about balancing doing interviews and observations with establishing and maintaining rapport. I was glad, though, that she was there, and I wanted her feedback to make sure I was getting what I should from the visit.

In 2 years of teaching, I had visited only a handful of homes. So, I had been into some of these homes before but only for school-related reasons, for example, delivering a report card, but I'd only visited for a brief period of time. These research visits were to be different—I had to observe, ask questions, take notes, and establish rapport—it was a lot to assimilate, with many activities to coordinate at the same time. One problem I had, for example, was deciding how closely to stick to the questionnaires.

DN: We discussed that and Cathy decided to stick closely to the questionnaire for the time being until she got more comfortable with the procedure. She would conduct the interviews in Spanish, the language of the parents, and we decided that both of us would take notes. I would concentrate more on observations, body language, and overall context, noting suggestions to improve our interview skills and topics to follow up on in future visits. Cathy would conduct the interview and respond to the parents' questions. We decided the first interview, in particular, would be to establish rapport.

We spent a lot of time first discussing the child, for example, Carlos's performance in Cathy's class. Cathy also informed Mrs. López of school activities she might want to be involved in, such as a culminating activity to a literature unit. It took us about 10 minutes to explain the project. The Lópezes had no difficulty understanding the potential benefits to the child, although they were not quite clear about what we wanted from them. That became clear as the interviews progressed. They were glad to participate, although Mrs. López preferred not to be tape-recorded.

CA: I was glad that she was able to tell us that so readily. Each time we went, we talked about the child, and tried to make astute observations. Some of these observations included, for example, noticing and asking about family photos and trophies. Encyclopedias on corner bookshelves provided a natural entrée into topics of family history and social networks of exchange, literacy, and the parents' pride in their child's achievements.

DN: At first, going into the López home, I felt a little nervous, too, because it was my experience to spend an enormous amount of time living with and interacting with the families before gaining the kind of entrée we were hoping to gain in this first interview. I didn't realize then that Cathy, as Carlos's teacher, had a natural entrée into the home, and had an implicit connection with Carlos's parents. I can't emphasize this enough. She was their son's teacher, and so we were treated with a tremendous amount of respect and warmth. I was amazed at how easily and quickly Cathy gained rapport with Mrs. López, and how much the Lópezes opened up to us.

The anthropologist noticed that the teacher held a special status with the family that could help establish the trust necessary for the exchange of information. After making sure that the family understood the purpose of the visit, the teacher started the interview and was surprised by how forthcoming the mother was with information. Cathy, the teacher, also realized that she was starting to blend her role as a teacher with her new role as researcher; as she gathered new information about the family, their history and activities, she started making connections to instructional activities she wanted to develop—a common experience among the teachers and a key moment in our work.

CA: Once we began the interview, it seemed that Ms. López was really enjoying talking about her family, her children, and her life. They had told us this in training; that people would open up once they get talking. For instance, when she got on the subject of the difference between Mexican and U.S. schools, she just kept talking, and we let her go with it, and got more out of it than if we had stayed strictly with the questionnaire. But we had to balance that with our agenda; and for the first interview the main thing was to get the family history so we would have a baseline for discussing literacy, parenting, attitudes toward school, and funds of knowledge.

The issue of balancing use of the questionnaire and letting it go to probe on emergent issues was never totally resolved for me. That's why it

was helpful to have an anthropologist with me. For example, during one later interview, I was prepared to accept a short answer from a parent and go on to the next question, but at Deborah's urging, I probed further and ended up with good information on religious devotion as a fund of knowledge, something that I would have missed.

DN: Eventually, we returned to the questionnaire, moving on to discuss the family's labor history.

CA: As we progressed asking questions about family background and labor history, I began to relax, although I was concerned with whether I was getting enough material that would be useful later in developing a learning module. Actually I never totally disengaged from my role as a teacher, and when such things as cross-border trade came up, I thought this would be a great topic to use in my classroom and I tried to figure out how I could capture this resource for teaching.

SEEING BEYOND STEREOTYPES

An important aspect of the teachers' participation in the household research became the more sophisticated understanding they developed about the children and their experiences. There is much teachers do not know about their students or families that could be immediately helpful in the classroom, as the following comments illustrate.

DN: One of the things that we learned about the Lópezes that we didn't know before was the depth of the multicultural experiences their son, Carlos, had in cross-border activities. It wasn't just a superficial experience for him.

CA: Half of the children in my classroom are international travelers, and yet this experience is not recognized or valued because they are Mexican children going to Mexico. Anglo children may spend a summer in France and we make a big deal about it, by asking them to speak to the class about their summer activities! Carlos spends summers in Magdalena, Mexico, yet he's probably rarely been asked to share his experiences with anyone.

His visits to Mexico have been more than 1- or 2-day visits. He spends most summers there. He and his brothers are first-generation born in the United States but their social networks extend into Magdalena. His family's cross-border activities extend back generations. His parents were born in Magdalena. His father began coming to the United States during his summer vacations, when he worked as a migrant worker in

California. He eventually decided to stay here permanently and moved with some friends to Tucson.

Carlos's father's parents are involved in the import-export of major appliances between Sonora and Arizona and there are regular visits of relatives back and forth. His dad says they really live in both places. I'll read some of the notes from my interview with Carlos that describe his life in Sonora:

In Magdalena he and his family stay with different relatives. When he is there he plays with his cousins. They are allowed to wander freely around most of the town. They like to play hide-and-seek and sometimes they are taken places by older relatives. They like to visit a pharmacy that one of his aunts owns, and one of his older cousins is married to someone who works on three ranches.

Sometimes he goes to visit the ranches. Once he got to ride a horse. One thing he likes to do when he visits a ranch is play with a bow and arrow. He says his cousin's husband will give him and his cousins a thousand pesos if they find the arrows. Carlos also reports playing cards when he visits Magdalena and that he has gone fishing near Santa Ana with older cousins and an uncle.

DN: It is precisely through information of these kinds of social activities that we identify funds of knowledge that can be used in the classroom to help improve his academic development.

CA: Furthermore, because of these experiences, Carlos and many of my other students show a great deal of interest in economic issues, because they have seen the difference in the two countries. In immigration law, but also in laws in general; they would ask me why there are so many laws here that they don't have in Mexico. These children have had the background experiences to explore in-depth issues that tie in with a sixth grade curriculum, such as the study of other countries, different forms of government, economic systems, and so on.

Carlos himself is involved in what we could call international commerce. He's a real entrepreneur. Not only does he sell candy from Mexico, according to his mother he'll sell anything he can get anyone to buy, for example, bike parts. His mother says Carlos got the idea to sell candy from other children. We didn't uncover this only through questioning but from being there when one child came over to buy some candy from Carlos. He was really proud when he gave us each a piece to take home. Here was Carlos right in front of our eyes enacting a family fund of knowledge. This experience later turned out to be the seed for the learning module I developed for the project, which I will share with you in a few minutes.

The two presenters then discuss how the specific qualitative methods of study influenced not only the nature of the information collected from the family, yielding data about their experiences and funds of knowledge, but provided them with a more sophisticated understanding of the student, his family, and their social world. This more elaborate understanding helped the teacher transform this information into a useful instructional activity.

DN: It is so important to learn how culture is expressed in students' lives, how students live their worlds. We can't make assumptions about these things. Only a part of that child is present in the classroom. We had little idea what Carlos's life was really like outside of the classroom, and what he knew about the world.

CA: I couldn't have done this work without the anthropological perspective and methodological perspective I learned in the project. Ethnography is different from other forms of educational research. It's open-ended. You go in with an open mind, not prejudging; being totally receptive to everything you hear and see. I didn't want to know only if the parents read stories to their children or how many books they had. I wasn't tallying the hours of TV the children watched either. I feel that I learned much more than that with a greater breadth of knowledge because I was not narrow in my focus.

DN: Carlos is embedded in a home and world, continuous with his family's history and in a culture that is at times discontinuous from that found in school. How does one take advantage of these resources in the home? This experience of going into the home, raking off your lens for a moment, trying to step outside your assumptions to see Carlos on his own terms, in his own turf, is one way to do this.

We learned a lot during these three interviews that fractured stereotypes that we had heard others say about these households. Carlos's parents not only care, but have a very strong philosophy of child rearing that is supportive of education, including learning English. They have goals of a university education for their children, instill strong values of respect for others, and possess a tremendous amount of pride and a strong sense of identity—in addition to the more practical knowledge in which their children share on a regular basis. These values are not unique to this family. All of the households we visited possess similar values and funds of knowledge that can be tapped for use in the classrooms.

But the workshops and fieldwork experience are just the beginning. There's the extensive reflection and writing-up stage, the record of the experiences, from which we read segments a few minutes ago. This reflection process is not to be underemphasized, for it is not just what people say that matters, but the subtext, and our observations and interpre-

tation; for example, the way Mrs. López's eyes lit up when she showed us the trophy her son had won in the science fair, Mr. López's pride in his philosophy of child rearing, and so forth. And then there is the translation of this material into viable lessons for the classroom.

The presenters pointed out that it is the teacher, not the anthropologist, who is ultimately the bridge between the students' world, theirs and their family's funds of knowledge, and the classroom experience. However, teachers need not work alone. They can form part of study groups, social networks that will provide the needed assistance and support in analyzing information and in elaborating instructional practices.

EXPERIMENTING WITH PRACTICE

The presentation concluded with a description by Catty, the teacher, of the development of a theme study, or learning module, as we called them, based on information gathered from the households. Notice the emphasis on the inquiry process, on the students becoming active learners, and on strategically using their social contacts outside the classroom to access new knowledge for the development of their studies. Her summary follows.

CA: After we had completed our field work and written field notes for all our interviews, it truly was left up to us, the teachers, to decide how we were going to use the knowledge we had gained about our students and their families. We spent 2 days with consultants and everyone else who had been working on the project and brainstormed and bounced ideas off each other. I worked with two other teachers from my school, and together we developed a learning module with a rather unusual theme—candy. You've already heard that Deborah and I witnessed Carlos selling Mexican candy to a neighbor. The fifth grade teacher I worked with also uncovered this theme. He interviewed a parent who is an expert at making all kinds of candy. In a truly collaborative effort, we outlined a week's worth of activities we could use in our classes.

To focus students' thinking on the theme, I had students free-associate with the topic. I recorded their ideas on a large piece of white paper on the board. Next, I had them come up with a definition for the word *candy*. This was not as easy as you might think. They'd mentioned gum and sunflower seeds while brainstorming, which I wasn't sure should be included in this category. But I didn't tell them this because I wanted them to use their analytical skills to come up with their own definition. Actually, they got stuck deciding whether salty things like *pica-limón* and *saladitos* (Mexican snacks that include salt and spices) were candy. Next they categorized all the candies they'd mentioned.

After that we used the "know-want-learn" (KWL) method to organize our unit. For those not familiar with this method, we used a three-column chart. In the first column we recorded everything the students know about the topic. In the next column, we recorded what they want to know. The third column, is used at the end of the unit to record what the students learned during the study. After working with the project consultant, I added another W, or "want," at the end of the chart—a fourth column, something new for me—to record new questions students had, to help them see that learning is ongoing, that it does not consist of discrete chunks of knowledge. We then surveyed and graphed favorite candies of the class.

With the assistance of the teacher, the students pursued their interests by focusing their inquiry on a narrower topic and by specifying a research question. As is common in research, the class relied on all their resources, including the expertise of one of the parents, to elaborate their work. Notice, however, that this was not a typical parent visit to correct or sort papers; the purpose of the parent's visit was to contribute intellectually to the students' academic activity. This parent, in effect, became a cognitive resource for the students and teacher in this classroom (see also Moll & Greenberg, 1990).

CA: Next, we became a research team. Students chose one of the questions they'd generated to answer. They chose, "What ingredients are used in the production of candy?" I framed the pursuit of the answer using the version of the scientific method we use in schools. After writing their question on the board, the students developed a procedure to answer their question; then they hypothesized what ingredients they'd find on the candy labels they brought in the next day.

The next day, after students had made a class list of ingredients in the candy samples they'd brought in, they graphed the frequency of occurrence of the ingredients they'd found. Then I had them divide the ingredients into two lists—one of ingredients they'd found in the Mexican candy samples and one of ingredients they'd found in U.S. candy samples. We all learned something that day. We were all surprised to see that fewer ingredients are used in Mexican candies and that they don't use artificial flavors or coloring—just vegetable dyes and real fruit.

The next day one of the parents of my students, Mrs. Rodriguez, came in to teach us how to make *pipitoria*, a Mexican candy treat. This turned out to be the highlight of our unit. Before she came in that morning, the students divided up to make advertising posters and labels for the candy because we were going to sell what we made at the school talent show. When Mrs. Rodriguez arrived, she became the teacher. While the candy

was cooking, she talked to the class for over an hour and taught all of us not only how to make different kinds of candy, but also such things as the difference in U.S. and Mexican food consumption and production, nutritional value of candy, and more. My respect and awe of Mrs. Rodriguez grew by leaps and bounds that morning. Finally, the students packaged and priced their candy.

The unit concludes, somewhat prematurely, as the teacher notes, with the students summarizing and reflecting on their work, and by identifying further topics for future research. The teacher, in turn, has become a "mediator"—providing strategic assistance that would facilitate the students' inquiry and work.

CA: The last day of the unit, students wrote summaries of what they'd learned and we recorded it on our chart. Then they began to formulate new questions. Examples of their new questions are "What is candy like in Africa?" and "What candy do they eat in China?" As you can see, if we'd had time to continue our unit, our studies would have taken us all over the world. We did, however, cover many areas of the curriculum in one short week—math, science, health, consumer education, cross-cultural practices, advertising, and food production.

From the questions the students came up with alone, we could have continued investigating using innumerable research and critical thinking skills for a considerable part of the year. If we had continued this type of activity all year, by the end we would have been an experienced research team, and my role would have been to act as facilitator helping the students answer their own questions.

CONCLUSION

We have presented a single aspect of a broader, multidimensional research project: teachers as co-researchers using qualitative methods to study household knowledge and drawing on this knowledge to develop a participatory pedagogy. The insights gleaned from approaching the homes ethnographically, and adapting the method to the educational goals of the project, were a result of a genuine teacher-researcher (in this case, teacher-anthropologist) collaboration. We have learned that it is feasible and useful to have teachers visit households for research purposes. These are neither casual visits nor school-business visits, but visits in which the teachers assume the role of the learner, and in doing so help establish a fundamentally new, more symmetrical relationship with the parents of the students.

This relationship can become the basis for the exchange of knowledge about family or school matters, reducing the insularity of classrooms, and contributing to the academic content and lessons. It can also become, as illustrated above, the catalyst for forming research teams among the students to study topics of interest to them, or important to the teacher, or for achieving curricular goals.

Our concept of funds of knowledge is innovative in its special relevance to teaching; we believe, and contrast with the more general term *culture*, or with the concept of a culture-sensitive curriculum, and with the latter's reliance on folkloric displays such as storytelling, arts, crafts, and dance performance. Although the term *funds of knowledge* is not meant to replace the anthropological concept of culture, it is more precise for our purposes because of its emphasis on strategic knowledge and related activities essential in households' functioning, development, and wellbeing. It is specific funds of knowledge pertaining to the social, economic, and productive activities of people in a local region, not "culture" in its broader, anthropological sense, that we seek to incorporate strategically into classrooms.

Indispensable in this scenario are the research tools—the theory, qualitative methods of study, and ways of analyzing and interpreting data. These are what allow the teachers (and others) to assume, authentically, the role of researchers in household or classroom settings. They are also what help redefine the homes of the students as rich in funds of knowledge that represent important resources for educational change.

We are currently starting the next phase of study, involving teachers in five different schools serving both Mexican and Native American students.⁵ The research design remains the same: developing our understanding of households and classrooms and collaborating with teachers in conducting the research and in developing academically rigorous instructional innovations. Now, however, we have teachers with research experience helping us organize the study groups, developing further the methodology for doing the home investigations, conceptualizing and implementing promising instructional activities, and evaluating the project. In this new study we plan to include principals, as co-researchers, and parents in the study groups as an attempt to rethink our respective roles and develop our collective funds of knowledge about teaching and learning.

⁵ One of our goals for 1992–1993 is to develop the project in other regions of the country through collaborative ventures. For example, we are currently piloting an initial teacher-anthropologist component to collect baseline and background data on target schools and communities including demography, economy, migration, educational achievement level, and community resources, before developing questionnaires and conducting home interviews in different regions of the country. We are also developing assessment procedures to document project success, especially the academic benefits to the students, in order to improve our accountability to the schools and communities in which we work.

One of the hallmarks of qualitative research is that strategies often evolve within the process of doing. As teachers, administrators, and parents become more aware of the linkages that can be created using this methodology and become comfortable with the redefinition of roles that it entails, new strategies of implementation will emerge that are driven by the needs of the target community. As the research unfolds, the constitutive nature of the inquiry process becomes apparent, as teacher, researcher, parent, child, and administrator jointly create and negotiate the form and function of the exploration.

REFLECTION QUESTIONS

1. How does the conversation between the anthropologist and the teacher connect with the idea of theory into practice?
2. What do the authors mean by reciprocity?
3. In what ways are teachers also researchers?

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