

# DEVELOPMENTAL PATHWAYS THROUGH MIDDLE CHILDHOOD

*Rethinking Contexts  
and Diversity as Resources*

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## Soledad's Dream: How Immigrant Children Bridge Their Multiple Worlds and Build Pathways to College

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Soledad<sup>1</sup> was born in central Mexico and came as a young child with her family to live in California. Both of her parents went to elementary school (*primaria*) in rural Mexico. Now living in a rural California community, her father has worked painting houses and her mother cleaning businesses as they dreamed of college and professional careers for their children. We began to hear Soledad's unique story at age 11, when she wrote an application essay in Spanish for a community college outreach program about her ideal job, her resources, and her obstacles: "I would like to write stories that will teach children many things, like becoming interested in reading. I want to help my community by finding economical resources so that the children don't leave their studies and other things. . . . My obstacles are that I have cerebral palsy. Another obstacle is the English language." At age 13, in the outreach program's Summer Institute activities, Soledad wrote the following in English:

I want to be a writer and a DJ at a radio station. I have decided to go to [UC] Berkeley. I want to go to Berkeley because it has a program for disabled people and I have problems like that. The college is close but not too close. . . . My challenges are my disability, working to pay for college, and having problems

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<sup>1</sup>Soledad's real name is used at her request, but all other children's names in this chapter have been changed to protect their privacy.

in college. . . . My resources are my teachers, college, books, and DJs of other radio stations.

At age 15, Soledad read five of her poems, in English and Spanish, on her first radio appearance and encouraged her listeners to become writers themselves (see Fig. 11.1). By age 16, she had started her own weekly show, on a university public radio station, entitled "Teen Power/Poder de Juventud," that features an eclectic blend of Latino music, soccer score an-



FIG. 11.1. Soledad Rosas (on right), reading her poems on her first radio show, with the guidance of graduate student Cathy Angellilo.

nouncements, guest interviews, and call-in participation. And at 19, Soledad continued her show while completing her first year as a student at the local community college. And she cotaught a summer class for youth on radio broadcasting, through which she taught younger students and sought a host to take her show when she leaves for a career in commercial radio.

Like Soledad and her family, generations of immigrant families come to the United States with dreams of a better life for their children. Although some immigrants come as refugees from war with goals of survival (see García Coll, Szalacha, & Palacios, this volume), many also come primarily with dreams of education and a better life for their sons and daughters. Immigrant parents have described schools as the "hills of gold" for moving up from their lives of hardship and sacrifice (Azmitia, Cooper, García, & Dunbar, 1996; Cooper, García Coll, Thorne, & Orellana, this volume; Rumbaut, 2000; Suárez-Orozco & Suárez-Orozco, 2001). As Soledad explained, her dream "to help my community by finding economical resources so children don't leave their studies" grew from her mother's stories of Mexico, where she left school for work to help support her family.

How might diversity and context function as resources for children of immigrants like Soledad as they build pathways through childhood? First, we consider diversity, contexts, and pathways through childhood in terms of the "academic pipeline problem." This chapter considers the role of diversity and contexts as resources for children's emerging identities by asking how children of Mexican immigrants—the largest group of immigrants in the United States—navigate across their worlds of families, peers, schools, and community as they build pathways through childhood to college and careers.

### DIVERSITY AND EQUITY IN ACCESS TO EDUCATION: THE ACADEMIC PIPELINE PROBLEM

Children's pathways through school can be seen as moving through an "academic pipeline" from childhood through school to adult family, work, and community roles (Gándara, Larson, Mehan, & Rumberger, 1998). However, despite the fact that communities value equal access to education and each cohort of children entering school represents its community demographics, low-income, ethnic minority, and immigrant youth leave school in higher numbers and are less likely to attend college than middle-class and ethnic majority youth. Thus, as each community's cohorts reach age 18 and make the transition to college, they have become demographically unrepresentative of their community.

This academic pipeline problem has emerged in many nations as immigrants, refugees, and guest workers remain in host countries and send their children to school. And, it is especially likely when parents have not at-

tended college, schools lack guidance counselors, and support programs target preschool or high school but leave a gap from elementary into middle school, when children's pathways toward or away from college diverge. Of course, college is not the only mark of success, but education is clearly linked to life opportunities and choices and predicts income in all ethnic groups, and youth who leave school with low skills can drift toward illegal work and other high-risk activities. Although research on the academic pipeline problem has focused on children and youth who drop out of school, this chapter asks how immigrant, low-income, and ethnic minority children build pathways to college.

### RETHINKING DIVERSITY, CONTEXTS, AND PATHWAYS: CAPITAL, ALIENATION, AND CHALLENGE

Debates on the academic pipeline problem offer insights about its persistence and remedies from three viewpoints we shall call *capital*, *alienation*, and *challenge*. Although stemming from different disciplinary roots, each theory points to the significance of the interplay of diversity and contexts—especially families, peers, schools, and community programs—for immigrant children's identities and their pathways through school (Cooper & Denner, 1998).

"Capital theories," developed by sociologists, suggest that children whose parents attended college are more likely to develop academic identities, college-based career goals, and achieve at higher levels than those whose parents have had less education, thus reproducing social hierarchies across generations (Bourdieu & Passeron, 1987; Coleman, 1988; Dika & Singh, 2002). Evidence for this model is seen in multination studies showing social class hierarchies are maintained even while average levels of educational attainment rise (De Graaf, De Graaf, & Kraaykamp, 2000). Recent sociological studies ask how low-income, ethnic minority, and immigrant youth may create cultural capital—knowledge of how opportunity structures work—and develop academic identities by building ties from families and peers to teachers, counselors, and college-preparatory programs (Mehan, Hubbard, & Villanueva, 1994; Stanton-Salazar, 1997).

"Alienation models," proposed by cultural anthropologists, argue that racial and economic barriers can dim ethnic minority families' high hopes for their children's futures and lead youth to disengage from school by forming oppositional identities that affirm peer bonds and buffer against school failure (Fordham & Ogbu, 1986). Evidence for this view includes ethnographic work with African American youth, where disengagement across school, family, and peer contexts undermined youth engagement in school and their goals for college and careers (Ogbu, 2003). Other ethnographic studies report

that being marginalized from opportunities to belong in families and in schools was typical of youth who developed gang identities in Latino, African American, and Asian communities (Vigil, 2004). Anthropologists have also compared youth who sustain school engagement to those who develop alienated identities. Gibson (1997) found academically successful Punjabi Sikh and Mexican immigrant high school youth were optimistic about their own future prospects while aware of their peers' limited opportunities.

Finally, "challenge models" suggest that immigration, poverty, or racism can, under some conditions, motivate children and youth to take action to succeed on behalf of families and communities and prove gatekeepers wrong. In their Students' Multiple Worlds Model, educational anthropologists Phelan, Davidson, and Yu (1998) chose the geographical metaphors of "worlds" to refer to cultural knowledge and expectations held in each social context, and "navigation" to capture youths' actions and experiences as they try to move across borders among their family, school, and peer worlds. The Bridging Multiple Worlds Model (Cooper, 2003; Cooper, Cooper, Azmitia, Chavira, & Gullatt, 2002) builds on this work to trace how ethnically diverse children forge their sense of identity by navigating across their worlds of families, peers, schools, and communities on pathways to college and adult work and family roles. This multilevel developmental model traces the interplay of challenge and support at personal, relational, institutional, and cultural levels. It proposes that challenges in the context of support foster identity development and pathways to college. This paradoxical interplay of challenge and support in development is also a key process in Erikson's (1968) account of identity development and Werner and Smith's (1992) studies of resiliency.

As shown in Fig. 11.2, the Bridging Multiple Worlds Model targets five dimensions or levels over time that follow children's transitions as they navigate through the academic pipeline:

1. Demographics along the academic pipeline—families' national origin, ethnicity, home languages, and parents' education and occupation gauge equity in access to educational opportunities among cohorts of students moving from childhood to college.
2. Identity pathways to college, careers, and family roles.
3. Math and language academic pathways through school.
4. Challenges and resources across children's worlds of families, peers, schools, and communities.
5. Cultural research partnerships that boost resources children draw from each world as they build pathways to adulthood.

Studies of this theory involve culturally diverse cultural communities, including U.S. youth of African, Chinese, European, Filipino, Latino, Native

American, Japanese, and Vietnamese descent, as well as Japanese youth and multiple-heritage youth (Cooper, 1999, 2003; Grotevant & Cooper, 1998). The work addresses three related aims: scientific goals of conceptualizing and understanding how ethnically diverse children navigate their worlds of families, peers, school, and communities along their developmental pathways; policy issues of equity in access to education; and issues of educational practice in multicultural communities.

This chapter illustrates the testing, application, and revision of this theory in a longitudinal study of emerging identities of Mexican immigrant children as they navigated the academic pipeline from childhood to college. Mexican-heritage children are of special interest on issues of immigration, identity, and education. In both the 1990 and 2000 U.S. censuses, Mexican-origin families were the largest group of immigrants and the largest group among Latinos in the nation (U.S. Immigration and Naturalization Service, 2000). This chapter complements others in this volume that focus on children's transition into elementary school (e.g., Stipek, this volume) by targeting the transition from childhood into adolescence as a key time when children's pathways toward or away from college diverge.

The study draws from one cultural research partnership between university researchers and a community college outreach program that awards scholarships and offers support to help students from low-income, mostly Mexican-descent families to stay on track to college. The partnership has collected long-term data from children, beginning with their entry into the program at ages 11 to 12, through their high school graduation at age 18. This chapter draws on these data to focus on students beginning in late middle childhood and their challenges and resources navigating from childhood to college. We first describe group-level longitudinal patterns reflecting the five levels of the Bridging Multiple Worlds Theory: (a) demographics along the academic pipeline, (b) children's college and career identities, (c) their math and English pathways, (d) their challenges and resources across worlds, and (e) the cultural research partnership over time. We then consider three longitudinal case studies of children in the program to illustrate the group-level patterns in the lives of individual children and to probe more closely under what conditions children of immigrants build pathways to college (Yin, 2003). Finally, we reflect on implications of our findings for science, policy, and practice.

**METHOD**

**A Program and a Partnership**

The study was conducted in a cultural research partnership with a community college outreach program that involves about 500 children and youth at any one time. The program awards \$1,000 scholarships to the community

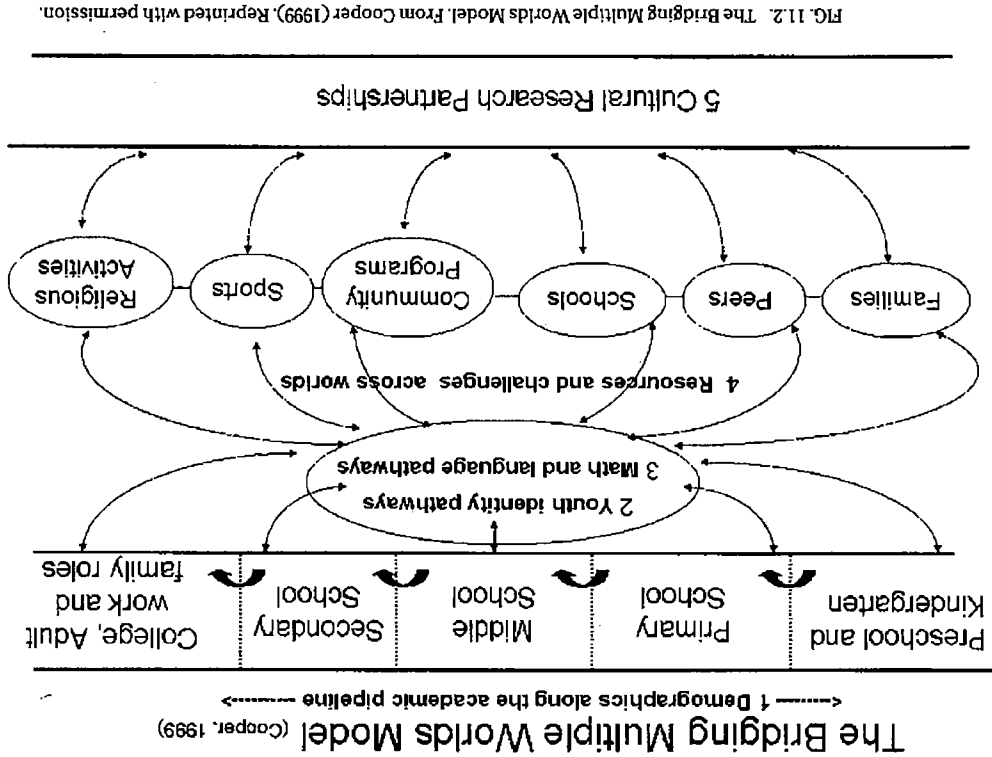


FIG. 11.2. The Bridging Multiple Worlds Model. From Cooper (1999). Reprinted with permission.

college to sixth-grade students from low-income families and offers supportive activities from sixth grade to college to help students stay on track to high school graduation and college. These include a spring awards ceremony for new students and high school graduates and their families, an annual Summer Institute, Saturday Academies in fall and spring, year-round tutoring at students' schools, counseling by the program director, and family involvement activities (Denner, Cooper, Dunbar, & Lopez, 2005). The program was founded in 1991 by the president of the community college, who was inspired by Eugene Lang's "I Have a Dream" program. In 1995, as part of the MacArthur Network (see chapters by Garcia Coll et al., and by Thorne, this volume), the partnership was created by the first author (a university professor) and second author (the program director) to examine how the program worked with children from low-income and immigrant families to build pathways to college and careers.

The partnership is ongoing, with regular meetings with program and research staff, scholarship donors, families, and youth, to identify questions and integrate data collection and analysis with program activities. Program staff and youth participate in data collection, analysis, and interpretation, and research staff help with program planning, delivery, and communicating with scholarship donors (Denner, Cooper, Lopez, & Dunbar, 1999). Members of the partnership ask questions useful to them. For example, the director has asked questions such as the following: (a) Who participates? (b) Who attends activities such as tutoring? (c) Do students' grades rise and fall or are they stable? (d) How do peers matter for students' pathways to college? and (e) How useful do graduating students consider the different components of the program?

During each Summer Institute, beginning in 1996, children and youth in the program have written about their family trees, their college and career goals, charted their math and English pathways, and described who helped and caused them difficulties in schoolwork, in math, staying in school, and thinking about college. Youth also have written their reflections on the partnership findings, suggestions for improving the Summer Institute, and about the impact of the program on their lives. The partnership created a longitudinal database for all children in the program, including program records, application essays, grades, and responses to annual Bridging Multiple Worlds activities.

### Participants

The primary analyses for this chapter focus on 116 children (83% of those selected) who had a Spanish surname (76 girls and 40 boys) and who entered the program at age 11 or 12 (in sixth or seventh grade) between 1995 and 1997. The children were living in two adjacent communities in a single California county, 34% in the town of Santa Cruz, a small city with a majority

European American population in the "north county" and 66% in the town of Watsonville, a rural, predominantly Spanish-speaking community in the "south county." The community college is located, by design, midway between the two communities.

### Measures

In the mixed-methods design, the partnership drew on census data from national, state, and county sources; children's, parents', school, and program perspectives; as well as the observations of university researchers. To tap children's views, we adapted the Bridging Multiple Worlds Survey originally developed for high school youth (Cooper et al., 2002; Cooper, Jackson, Azmitia, & Lopez, 1998) into a bilingual activity format entitled "It's All About Choices/Se trata de todas las decisiones: Activities to Build Identity Pathways to College and Careers" (Domínguez et al., 2001). These activities constituted two of the four Summer Institute classes. Program staff compiled children's attendance at the annual Summer Institutes. We also analyzed children's program application essays, their pre- and post-Summer Institute surveys, and interviews with students at age 18 by the bilingual program staff.

**Demographics Along the Academic Pipeline.** We conducted longitudinal analyses of pathways through school from 1996 to 2003 with regard to national origin, ethnicity, home languages, and parents' education and occupation as well as students' gender. We drew on national, state, and county census data to compare to our local sample of children as they moved through the academic pipeline. Information about sample families' national origin and parents' education and occupation were compiled from program and school records. In addition, in "It's All About Choices," children were asked the following: "Who is in your family? Where were your parents born? How far did they go in school? What are their jobs?"

**Children's Identity Pathways to College and Careers.** Children's career goals were measured with children's program application essays ("Describe your ideal career goal") and their Summer Institute pre-session and post-session surveys (e.g., "Name the career you would like to have when you finish school"). Answers were coded by social class (Hollingshead & Redlich, 1958) from 1 to 7 (higher executives and major professionals to unskilled labor). Children's college and career knowledge was also assessed in the Summer Institute pre-session and post-session surveys, in which children were asked, "How many years after high school would you need to attend school to attain your career goal?" Answers were coded from 1 to 3 (1 = *unrealistic answer*, 2 = *has some idea*, 3 = *knows answer*).

Children's math and language academic pathways were coded from school transcripts for math and English classes and grades from sixth through high school. A coding system from prior studies of children's math and language pathways was adapted for this sample that distinguished trajectories of students' grades over time as high, declining, increasing, back on track (declining then increasing), and low pathways (Cooper et al., 2002). The year in school students passed Algebra 1 with a grade of C or higher was used as an indicator of being on track to college.

**Challenges and Resources Across Children's Worlds of Families, Peers, Schools, and Communities.** In "It's All About Choices," children were asked "Who helps you?" and "Who causes you difficulties?" for several topics, including with schoolwork, with math, going to college, and being a good person. They were also asked, "Who do you help with these things?" Responses were coded for person and traced longitudinally (Holt, 2002; Mena et al., 2001). In the "career pyramid," children wrote a sequence of steps they anticipated toward their school, career, and family goals, and, on either side of the pyramid, their challenges and resources attaining these goals.

**Cultural Research Partnership: What Is Success?** The director, scholarship donors, and community college executives discussed and defined students' success as any of the following: graduating from high school; attending college, whether 2-year community college, technical school, or 4-year college or university; or entering military service. The leaders defined program success as increasing the percentage of students at age 18 with any of these pathways compared to other students at schools program students attend, compared to county demographic data, and compared to prior cohorts of students moving through the program. Based on this definition, the research partnership assessed participants' post-high-school status with a postcard survey and follow-up telephone interview by a bilingual program staff member. Questions included the following: "Did you graduate from high school? Did you attend college after high school? If yes, where? If not, do you still plan to attend?" Responses were coded from 0 to 7 (0 = *moved or lost contact*; 1 = *will graduate from high school in year interviewed*; 2 = *did not graduate from high school*; 3 = *high school graduate only*; 4 = *enrolled in technical school*; 5 = *enrolled in military*; 6 = *enrolled at 2-year community college*; and 7 = *enrolled at 4-year college or university*).

## KEY FINDINGS

First, we consider group patterns from 1995 to 2003 across the five levels of the Bridging Multiple Worlds Theory to examine under what conditions children from low-income immigrant families do and do not build success-

ful pathways to college. In brief, demographics revealed how children of low-income immigrants from Mexico gained access to educational opportunities as they applied and were selected for the program, although more girls than boys applied and were accepted for the program and this gender imbalance grew over time. Children's identity pathways to college and careers reflected growing understanding of their college and career goals during the program Summer Institute. Children's math pathways diverged early, with elementary grades predicting later grades. As with peers at their schools, passing Algebra was a challenge, with many needing extra time to complete it. The challenges and resources across children's multiple worlds shifted as children increasingly drew on both families and peers to build college-bound networks. The cultural research partnership, tracing longitudinal data from age 11 to 18, found children built pathways to more than one type of college, and the partnership appeared to increase in effectiveness over time. Finally, three longitudinal case studies illustrate the configuration of dimensions of the Bridging Multiple Worlds Theory in individual lives and also highlight the complementary nature of capital, alienation, and challenge viewpoints.

## Group Patterns Over Time

**Demographics Along the Academic Pipeline Reflect Access and Attrition.** In the partnership, demographics of participating children were traced from the year they applied for the program at age 11 to age 18. Following program guidelines, teachers and the director chose among applicants whose families were considered low-income by their eligibility for federal free and reduced-price school meal programs. Neither children's country of birth, whether they wrote application essays in Spanish or English, nor elementary school grades, predicted which children were selected (Denner et al., 2005). As they entered the program, the children were comparable in math and English grades to a school-based sample from the same communities (Azmitia et al., 1996; Azmitia & Cooper, 2001).

Participating children were mostly Latino and of these, almost all of Mexican descent. Census records indicate that the high number of Mexican-heritage children in the sample was representative of schools in Watsonville ("south county") but not Santa Cruz ("north county"). Among children in the program, program records indicated that parents' formal education, usually in Mexico, was typically less than high school, and for many, at the elementary level. Children's descriptions of their families revealed their parents worked picking strawberries, mushrooms, or lettuce, on cannery or factory assembly lines, or cleaning houses and hotels. Thus, the children in the program were typical in national origin, ethnicity, parent education, home language, and income, for south county, and school achievement of

