Cambridge Studies in Social and Emotional Development

DEVELOPMENTAL PSYCHOLOGY and SOCIAL CHANGE

RESEARCH, HISTORY, AND POLICY

Edited by
DAVID B. PILLEMER and
SHELDON H. WHITE

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Developmental Psychology and Social Change

What is the unique mission of developmental psychology? How has it evolved historically? What are its current challenges? The chapters in this collection present the view that research, history, and policy are essential and interlocking components of a mature developmental psychology. Patterns of human development differ markedly across historical epochs, cultures, and social circumstances. Major societal changes examined by contributing authors – the advent of universal compulsory schooling, the adoption of a one-child policy in China, U.S. policy shifts in healthcare, welfare and child care – present "natural experiments" in social design. Authors challenge the idea of a clear distinction between basic and applied developmental research. In sharp contrast with the view that science is value-neutral, developmental psychologists have from the outset pursued the betterment of children and families through educational, child-care, and health initiatives. An historical perspective reveals the beneficial, if sometimes contentious, interplay between empirical research and social programs and policies.

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Developmental Psychology and Social Change

Research, History and Policy

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Preface

As Professor Sheldon (Shep) White approached retirement from his position as William James Professor of Psychology at Harvard University, his colleagues and students began organizing an event in his honor. Barbara Rogoff and Alex Siegel were especially active in pursuing this idea. When I approached Shep for his input, he stated clearly that he did not want a traditional festschrift. Rather, he preferred to co-organize a lively, substantive conference and to co-edit an accompanying book that would concentrate on the three main foci of his life work: research, history, and policy in developmental psychology, and especially their intersections. The conference, titled *Developmental Psychology and the Social Changes of Our Time*, was held at Wellesley College, June 20–22, 2002. We adopted the more personal title, "Three Faces of Shep Conference," because Shep has represented and promoted each and all of these faces – research, history, policy – throughout his career. Connections between the three faces of his work provide the foundation for a new way of thinking about developmental psychology and the lives of children. Contributors were asked to write chapters that addressed the intersection of at least two of the three faces.

In addition to the chapter authors, conference participants included Alex Siegel, Edward Zigler, Emily Cahan, Jack Shonkoff, Tami Katzir, Robert Lawler, Julia Hough, Ruby Takanishi, and Bob Granger. Conference assistants Susan Camuti and Kate Collins were invaluable to this project. We are deeply grateful to the Foundation for Child Development and the William T. Grant Foundation for financial assistance, and to Cambridge University Press for producing an excellent book. Special thanks to Rachel Gooze and Zorana Ircevic for editorial assistance, to Julia Hough and Phil Laughlin at Cambridge

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Introduction: What Kind of Science Is Developmental Psychology?

Sheldon H. White and David B. Pillemer

What is the mission of developmental psychology? What is its role in history and society? Traditional philosophical models asserted the doctrine of the unity of science, with the natural sciences providing the model for all scientific endeavors. In this view, conceptual definitions, procedures, and methodologies of the "less mature" human sciences ought to be patterned after those of experimental physics, as a "mature" science. In the Age of Theory, Sigmund Koch's (1964) term for the period of theoretical behaviorism spanning the 1930s and 1940s, a vision of psychology as an "immature physics" was set forth.

Today, psychology continues to use many concepts, procedures, and definitions of "good science" borrowed from the natural sciences, although many aspects of developmental research are unlike those of experimental physics. The full range of children's thought and behavior is not captured easily by simple laws, numerical equations, or mathematical models. What, then, holds the natural-science model of developmental psychology in place? One factor is a set of institutional structures built up during the great growth period immediately after World War II, in the 1940s and the 1950s. During this era, much of the cooperative architecture of contemporary science was established – granting agencies, journals, norms and values of graduate education, definitions of appropriate methodology, and so forth. This institutional architecture implicitly enforces a traditional view of what science is and ought to be.

The architecture was designed primarily to fit the needs of the natural sciences and medicine, and it succeeds, to a degree, for developmental psychology. Unquestioningly, interesting and significant knowledge about human development is being produced under its support. However, we struggle to deal with patterns of phenomena that stretch the boundaries of traditional

physical science models:

- We rarely deal with universal laws or phenomena that are invariant across time and place. Patterns of human development differ across historical epochs, cultures, and social strata of a large and complex world society.
- The path of development is determined in part by active human design: options, choices, schedules, and tradeoffs created by members of society.
- The environment in which a child grows up is largely a human creation. There is human intelligence, human contrivance, and human intentionality buried in that environment. As a child develops, he or she must deal not only with the traditional invariant Kantian modalities – space, time, causation, number – but with the changeable vicissitudes of social influence.
- The developing child's continuing life task is not only to adapt to his or her environment, but also to construct it, manage it, build it, and rebuild it. Consider, for example, the famous question of whether children's play is or is not serious business. We posit that through play children are learning how to invent and manage environments.
- Developmental psychologists do not deal with a naïve or ignorant laity. People outside of academic psychology have important practical knowledge about human behavior and development and have significant responsibilities for predicting and managing it.
- There exists a strong demand for practical knowledge among developmental psychology's audience, and a corresponding profusion of "offshore knowledge" to meet this demand. Any commercial bookstore contains one or more floor-to-ceiling bookshelves on child psychology. The sometimes disparaging view within universities is that this body of writing represents only "popular psychology," watered-down and sometimes opportunistic translations of basic research. Yet, offshore books on childhood represent a variety of practical concerns of utmost importance to parents and educators, and these concerns demand our attention and respect.
- Developmental psychology departs from traditional views of basic scientific discovery because it deals explicitly with values. We have the peculiar spectacle of a supposedly "value-free" discipline addressing qualities of "good" or "bad" parenting, good or bad schooling, good or bad child-care arrangements, good or bad media influences, and good or bad social programs. Distinguished commentators,

including Dewey, Kohlberg, and Habermas, have argued that values are a necessary and important part of the mission of disciplines like developmental psychology. If one looks carefully at evaluations of government programs for children, it is not hard to discern a thinly concealed process through which social scientists help to define program goals and values.

From the Past toward the Future: Historical Analysis of Developmental Psychology

Philosophers of science in the 1930s discussed the practices and goals of psychology by aligning it with the history of experimental physics. Although developmental psychology is not physics-like, an historical approach to the field is a fundamental and perhaps essential way to think about its nature. How is developmental psychology an expression of the societies in which it exists? What does it do for such societies? How has it changed over time? What should its rightful goals and values be? What are the possible dangers, or side effects, associated with the practical application of developmental research? We look to the past to identify trends, processes, influences, or constraints. The early adventures of the discipline are, in effect, a series of transformational experiments that reveal important aspects of its construction. Historical perspective broadens our view of what possibilities exist for developmental psychology in the future.

Historical analysis illuminates the flow of questions, ideas, and practices back and forth between developmental psychology and the society surrounding it. Chapters in this volume explore connections between developmental psychology (and its philosophical ancestors) and child care and welfare (Phillips & McCartney; Huston; Haskins), nursery-school education (Beatty), design and management of educational systems and programs (Rogoff, Correa-Chávez, & Cotuc; Strauss), intelligence testing (Kozulin), healthcare for children (Buka; Lipsitt), and adolescent behavior problems (Edelstein). With an immediacy that transcends academic departments and research laboratories, developmental psychology participates in the life of the society surrounding it. In the beginning, not quite by coincidence, the rise of developmental psychology was associated with liberal, progressive forces in American politics. But now liberals and conservatives alike use the data of developmental psychology to build programs and strengthen their positions (Haskins).

In its earliest years, developmental psychology tended to dwell on the primitive in human nature, inspired in part by Darwin's evolutionary theory.

Developmental studies centered on questions of how the growing child's mind departs from the animal mind. The theorizing of those early years often pictured human infants as primitive, savage, amoral, egocentric, narcissistic, and living in a world of formless experience.

At the turn of the 20th century, G. Stanley Hall struggled to link Darwinian views of developmental psychology to the problems of children, parents, and professionals living in the institutional web of a modern society. Generations of developmental researchers have made the struggle after him and gradually the substance and modalities of their science have changed. A network of "applied" researchers now connects the university to communities of practitioners, professionals, and policymakers. Some romantic images projected by 19th century evolutionism have been set aside. Humans do not develop in a world of "nature red in fang and claw." From the very beginning, they grow up in an environment impregnated with human intelligence, in the midst of objects and activity patterns designed by humans for human purposes. As everyday environments change, patterns of human growth change, and developmental psychologists participate actively in the design processes of a changing, experimenting society. Ever more closely approaching the forefront of scientific inquiry is a cultural-historical perspective on both human development and the scientific work of developmental psychology.

Enlarging Developmental Psychology's Perspective: Some Modest Proposals

How can developmental psychology construct an identity that fully encompasses its historical, applied, and research faces? Some modest changes in undergraduate and graduate education, and in the programs and priorities of universities and funding agencies, would provide a good start. We propose the following changes:

- Graduate students in developmental psychology take a required course on the scholarly and social history of their discipline. The scholarly history will trace the emergence of ideas and methods used by contemporary developmental psychologists out of scientific and philosophical traditions of the 18th, 19th, and early 20th centuries. At the same time, the course will trace the increasing scholarly interest in child study alongside the emergence of modern societies and welfare states in the late 19th and early 20th centuries.
- Undergraduate and graduate students in developmental psychology have available to them a course on the organization of professions,

social services, and institutions dealing with families and children, and the role played by psychologists in their formation.
- Universities recognize that developmental psychology is a pluralistic field, which requires a variety of approaches and levels of inquiry. The pluralistic perspective will extend across faculties, disciplines, professions, and field sites.
- Universities and funding agencies recognize and give high priority to developmental psychology's agency as a science of design – as a cooperative human endeavor that has enduring ties and particular relevance to the problems and needs of contemporary society.

We believe that the chapters in this volume will contribute to a framework for achieving these goals.

Organization of This Book

Authors were invited to contribute to this book because they have done significant work in developmental psychology, and their work crosses traditional boundaries of research, historical scholarship, and policy analysis. For their chosen topics, we asked authors to address the intersection of at least two of these three domains: research, history, and policy. All of the chapters fulfill this request, and several advance developmental science in all three domains.

The chapters all challenge the idea of a sharp or meaningful distinction between "basic" and "applied" research. Applications to everyday social problems have not evolved secondarily, as add-ons to extended programs of theoretically driven "pure" research. Rather, developmental psychology has been connected to practical concerns from the outset. Nevertheless, the relationship between research and policy has been uneasy, with cooperation appearing to be much stronger in some domains than in others.

One prominent focus of developmental psychology since its inception is the betterment of children and families. Barbara Beatty shows how the rise of American nursery schools was tied directly to research movements in colleges, universities, and training institutes. Practical issues driving research included the question of whether nursery-school education could support women's career pursuits without impairing their children's healthy development, and if in fact early schooling could enhance successful socialization. In contrast, Deborah Phillips and Kathleen McCartney identify a general "disconnect" between research and policy on child care, compared to a much closer connection for Head Start enrichment programs. The authors pinpoint a number of reasons why child-care research and policy have largely developed

side-by-side rather than hand-in-hand. Ron Haskins also discusses the long and complex history of developmental science's relationship to child-care programs, but from the perspective of a policy analyst and Washington insider. Aletha Huston shows not only how research examining the effects of poverty on child development may inform public policy, but also how issues raised by the politics of welfare reform have enriched developmental science.

Education has long been a prominent point of intersection between research and practice. Barbara Rogoff, Maricela Correa-Chávez, and Maria Navichoc Cotuc chart the emergence of compulsory schooling in the United States and Guatemala. They show how some "naturalized" conceptions of child development, such as the linking of chronological age with standards of test performance, originally grew out of practical concerns. Even the developmental psychologist's essential independent variable – age – became an organizing principle for research on intelligence and achievement in large part because of its utility in solving bureaucratic problems relating to social sorting and educational placement. Alex Kozulin describes how the assessment of children's cognitive capacities, whether by IQ testing or other procedures, was tied "from the very beginning" to applied issues – predicting learning ability and school performance. Michael Cole and Jaan Valsiner illustrate the intimate connection between basic and applied agendas with their creative application of Vygotsky's theoretical construct "zone of proximal development" to children's failures to learn to read. Similarly, Sidney Strauss's original theoretical work on teaching as a "natural cognitive ability" carries with it important implications for the classroom and for teacher education.

In the domain of health policy, Steven Buka's sophisticated model of "developmental epidemiology" and Lewis Lipsitt's critical examination of research on the problem of crib death both illustrate how developmental research can make an invaluable contribution to effective policymaking. Buka presents stunning examples of how early life events may have a profound and lasting impact on health and well being. Lipsitt's analysis underscores the potential losses for society if critical research is overlooked or if "acceptable" research paradigms are defined too narrowly.

Several chapters capitalize on "natural experiments" in social design. Wolfgang Edelstein explores developmental explanations for a surge of neo-Nazi activity among East German adolescents following the collapse of the Berlin Wall and German reunification. He examines why these ideas are especially appealing to young people, and why adolescents are particularly vulnerable to their destructive influence. Michelle Leichtman and Qi Wang compellingly show how culture influences the ways that children and adults talk, write, and, ultimately, think about the personal past. They demonstrate

that governmental policies dictating family structure in China (the one-child policy) and governmental solicitation of certain types of autobiographical writing in China and the Soviet Union are reflected in the personal memory styles of individual citizens. Although Westerners accept compulsory schooling as a long-standing and unquestioned governmental policy, Rogoff and colleagues focus on its historical emergence in the United States and in Guatemala. When introduced, this dramatic social change had a profound impact on family life and the child's place in society.

Psychologists not only analyze the effects of societal change on children's development, but also effect change by linking their research insights to policy initiatives. Historical shifts in welfare policy (Huston), child care policy (Phillips & McCartney; Haskins), and healthcare policy (Buka; Lipsitt) also offer natural experiments in social design that are prime targets for psychological analysis and policy recommendations. But psychologists may help to shape the future even in areas that are a step removed from pressing policy considerations. Edelstein's perceptive analysis of the social consequences of the collapse of the Berlin Wall for East German society may suggest interventions directed to problem adolescents. Rogoff and colleagues' cultural-historical perspective portrays compulsory education not as a given, but as a changing societal characteristic, with good and bad qualities. This frees us to think creatively about the role of compulsory schooling in contemporary society, and what its role could and should be in the future.

Two chapters in particular help to set the tone for the entire volume. Charles Super presents a far-reaching, interpretive historical account of cross-cultural studies within developmental psychology, and he identifies a slow but important trend to "globalize" the field of human development. William Runyan offers a personal analysis and appreciation of Shep White's central role in establishing the history of developmental psychology as a prominent field of inquiry. Runyan's account of his own encounters with White, face-to-face and in print, provides a unique assessment of the value of an historical approach to human development.

To borrow a term from Runyan, we hope that this volume will contribute to a better and more adequate "story" of human development in its full historical, cultural, and political context.

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PART ONE

The Developing Child

Global and Historical Perspectives

1 The Globalization of Developmental Psychology

Charles M. Super

> Near the end of the first millennium of the Common Era, it is said, Khaldi, a goat herd living in the Horn of Africa, noticed that his animals were particularly frisky after consuming the red berries of a particular bush. The first hot beverage of "kahva" (meaning 'against sleep') was devised shortly thereafter either by monks, who learned of the beans from Khaldi, or by a Muslim dervish who, banished and starving, tried to soften the berries in water upon instructions from God (Starbucks, 2004; Anonymous, 2004). Soon Yemeni traders were exporting coffee beans from the port of Al-Mukha (hence: mocha), under a carefully protected monopoly.
>
> (Tchibo, nd)

In 1875 in Leipzig, Germany, Wilhelm Wundt established a laboratory for using the experimental method of physics to isolate and measure what were presumed to be the elements of sensation, perception, and ultimately the functioning of the psyche. His goal was to "mark out a new domain of science" (Wundt, 1874, cited in Schultz, 1975, p. 53). In this historical moment, it is said, lies the origin of modern psychology – scientific, empirical psychology, beyond the mere logic of the philosopher (Boring, 1950). In 1879, Leipzig University incorporated Wundt's laboratory, and in recognition of that event 100 years later, the American Psychological Association (APA) declared the centenary of the field itself. The APA was actually formed in 1892, with G. Stanley Hall presiding over a membership of 42 persons who were engaged in the advancement of psychology as a science (American Psychological Association, 2003).

Frans Boas, the founder of American anthropology, studied briefly in Wundt's experimental laboratory, but he eventually concluded that "even 'elementary' sensations were conditioned by their contexts of occurrence" (Laboratory of Comparative Human Cognition, 1983, p. 297). Thus he set out for North America to see more of humanity's contexts. Boas's lifetime

of field work among the Kwakiutl and other native American groups, and the intellectual line that descended from this project, defined a new, systematic ethnography focused on how cultural features shape human experience (Harris, 1968). The work of this tradition became housed in departments of anthropology, and the American Anthropological Association (AAA) was founded in 1902, with an initial membership of 175 (American Anthropological Association, 2000).

Sociology – a term originated in 1838 by the French philosopher Auguste Comte to encompass the cultural, political, and economic evolution of Western society (Scharff, 1995) – had firmer disciplinary roots in Europe than did either psychology or cultural anthropology, but a distinctly American version was evident by the time the American Sociological Association (ASA) was formed in 1905. The founders noted both that several European nations already had established associations devoted to the scientific study of society and its improvements, and that it was highly desirable to create a new American group "separate and independent" from existing organizations (e.g., the American Economics Society), as otherwise it would have a "subordinate position, and, what is worse, would seem to indicate that sociology is a branch of either history, political science, economics, or anthropology" (F. W. Blackmar, cited in Rhoades, 1981, p. 3). At the first Annual Meeting, in Providence, Rhode Island, members of the society numbered 115, including those with both theoretical and "practical" interests (Rhoades, 1981).

> During the reign of Süleyman the Magnificent (1520–1566), coffee was introduced to the Ottoman empire either by two Syrian traders, Hükm and Shems, or, according to another story, by the Ethiopian governor Özdemir Pasha. Although initially opposed by the empire's clerics as evil and narcotic, coffee quickly became popular and 600 coffeehouses had been established in Istanbul alone within a generation. The coffeehouses served there, as they have everywhere else since, as places of refreshment, news, and debate; by 1683 they had become central to the cultural and social functioning of the Ottoman empire. The Dutch by this time had successfully transplanted the coffee plant to their colonies in Java. (Kocaturk, nd; Vienna CC, 1998)

Thus psychology, anthropology, and sociology, like siblings separated in infancy, grew in their own directions. Their central energy was devoted to developing their own institutional architecture. Academic degrees and departments were established to carry the disciplinary names as early as 1878 (the Ph.D. in "Philosophy and Psychology" at Harvard). Disciplinary journals were adopted to communicate new findings and to reflect on the nature

of the field of inquiry (the *American Anthropologist* in 1888; the *American Journal of Sociology* in 1895; the *American Journal of Psychology* in 1897). Mechanisms to fund research were established by the professional societies and private foundations, and, much later, Federal funding was called forth with disciplinary guidance. Membership grew exponentially, to 10,000 currently for the AAA, 13,000 for the ASA, and 85,000 for the APA. The criteria for membership in the professional organizations were debated and tightened, increasing the associations' functioning as professional guilds. This was most evident in psychology, where credentialing for the therapeutic practice of psychology dominated discussion for much of the 20th century, but all three associations sought boundaries of one sort or another on their membership to ensure their integrity. ("The undersigned members," wrote M. Parmelee in a memorandum circulated at the 1931 Annual Meeting of the American Sociological Association, "animated by an ideal of scientific quality rather than of heterogeneous quality, wish to prune the Society of its excrescences [in applied sociology]"; cited in Rhoades, 1981, p. 24.) In the process, each profession constructed its own history, its "mythic origin story" to shape the understanding of what the discipline, and its disciples, ought to be (White, 1977).

Although the press toward a prototype for each discipline pulled away from ideas at the interstices, there have always been countervailing forces, primarily the integrated nature of reality. In the early period, it was perhaps more likely that a single scholar would roam freely across the intellectual fields. Wundt was indeed revolutionary in his determined efforts to apply the experimental rigor of physics to workings of the mind, but he later developed a much broader view of understanding human nature. His largest single project was a ten-volume, descriptive analysis of *Volkerpsychologie* ("ethnic psychology"), focusing on cultural and historical products of the human mind in particular times and places. He believed, as Blumenthal wrote in a centennial review (1979, p. 550), "that naturalistic observation, the study of development, evolution, and history, as well as the study of logic, linguistics and cultural products were equal and, in his later years, even more important methods (than experimentation)." Similarly, one can note that W. H. R. Rivers, sometimes considered the father of British anthropology, but also known for his psychiatric work with "shell-shocked" soldiers in World War I, served as president of the Anthropology section of the British Association for the Advancement of Science (1911) and was a founding member of the British Psychological Society in 1901 (Matisoo-Smith, 2002; Steinberg, 1961).

As the study of human behavior and society grew in size and in its own social structure, the boundaries became more established and the very

institutions that created them made efforts to communicate across them. Sociology was perhaps the most energetic field in this regard, led by visions such as that of Albion Small, who in 1907 declared "that all the social sciences are unscientific in the degree in which they attempt to hold themselves separate from each other, and to constitute closed systems of abstractions" (Small, cited in Rhoades, 1981, p. 6). In the first decades of the 20th century, the ASA became directly involved in a variety of projects to promote the social sciences in general. One of its first collaborations was the founding of the Social Science Research Council, along with the national associations for Political Science, Economics, History, Statistics, Psychology, and Anthropology. Shortly thereafter, sociology was part of another interdisciplinary collaborative project of particular relevance here – founding of the Society for Research in Child Development. The key individuals in this case were Margaret Mead (anthropology), Myrtle McGraw (psychology), Arnold Gesell (pediatrics), Robert S. Lynd (sociology), and T. Wingate Todd (anatomy).

In light of this ever-evolving interplay of discipline and interdiscipline, the birth and death of "Social Relations" is particularly interesting. The concept, born in the mid-20th century, attempts to recognize the social structuring of human relations, the cultural frame for such structuring, and the role of personal psychology as both consequence and antecedent of these structures. One of the major instantiations of this interdisciplinary concept took place at Harvard University in 1946, when Gordon Allport, Talcott Parsons, Clyde Kluckhohn, and Henry Murray formed the Department of Social Relations from the social, developmental, personality, and clinical fields of psychology, along with sociology and social anthropology; this left experimental and physiological psychology in its own department, and likewise physical and linguistic, and archeological anthropology. That arrangement lasted 25 years, at which point the faculty reverted to the traditional structure of psychology (inclusive), sociology, and anthropology (Patullo, 1999). A similar innovation had taken place at Johns Hopkins in the interim, but it lasted no longer; and at Lehigh University, where it now is also an historical footnote. Today, the term remains important – as judged by an internet search – at Rikkyo University (Japan); the University of California, Riverside (as a program, not a department), Keele University (England), and Eastern Nazerene College (Massachusetts).

> Late in the afternoon of 12 September 1683, 20,000 Polish cavalry, led by the warrior-king Jan Sobieski, descended unexpectedly out of the foothills near Vienna and charged straight into the camp of the 200,000 Turks and Tartars who had besieged the desperate city for months. By

> nightfall the Ottoman siege of Vienna was broken, the western surge of Islam had been stopped short, and a victorious Sobieski entered the tents, now abandoned, of the Grand Vizier. There he found, along with gold and weapons, bags of small dark beans, rumored to be the source of "kahve." These sacks ultimately were given as reward to Georg Franz Kolscitsky, a Pole who had worked for a Turkish trading company, knew the language and traditions, and had spied for the Viennese. In 1686 he opened what was long considered Vienna's first coffeehouse. By the early 18th century there were four such establishments; these grew to well over 600 at the height of the Austro-Hungarian empire toward the end of the 19th century. Today, even though their number has declined to about 200, coffeehouses and Vienna are still considered quintessential of each other to tourist guidebooks and to the Western mind more generally. (Vienna CC, 1998)

The systematic study of children in North America and Western Europe has a variety of roots, academic and applied, professional and interdisciplinary, which by the late 20th century had joined into a recognizable if not unitary entity (Siegel & White, 1982). The study of children outside the "Western world" has a more motley history, as it has been taken up from time to time for various purposes by the diverging disciplines (Harkness & Super, 1987). It was an elementary observation, even among philosophers such as Rousseau who preceded the emergence of the social sciences, that a true understanding of humanity must include the study of humans whose social world lies outside Western society, and that consideration of "the child" is essential. In 1900, Alexander Francis Chamberlain, an instructor in Anthropology at Clark University (where G. Stanley Hall, the founding developmentalist, served as president), published a monograph whose basic premise was reflective of the times and is still heard in the modern literature. Overstating the empirical base, perhaps, he nevertheless declared: "There is abundant evidence to show that the children of primitive peoples, whatever the condition of adults may be, are quite as well endowed mentally as the children of civilised [sic] peoples, the great difference between them existing in the greater number of learnable things which the environment of the latter provides, and the care and trouble which the community takes to make the acquisition of these things possible. Not the minds so much as the schools of the two stages of human evolution differ" (Chamberlain, 1900, p. 457f).

Anthropological interest in child development – at least nominally present in the earliest, classical ethnographies – flourished from the 1930s through the 1950s, as the "culture and personality" school considered enculturation to be a key theoretical construct (Harkness, 1992). With the decline of that

framework, however, social anthropology has generally taken up other topics, and the study of children has been marginalized in the discipline. It is noteworthy in this regard that contemporary anthropologists who retain developmental interests now tend to work in interdisciplinary settings, publish in cross-disciplinary journals, and increasingly either collect data within the U.S. or orient their publications to contemporary U.S. concerns (Harkness, Super & Keefer, 1992; LeVine et al., 1994; Weisner & Garnier, 1992).

Within psychology, the speciality of development has struggled both for a legitimate place in the discipline and for an adequate framework to address the natural environments of development. In the late 1950s and early 1960s, "child study" was transformed into "developmental psychology," linguistically marked as a subdiscipline of psychology (Cairns, 1983). It emerged with a strong dependence on experimental techniques to study changes over age in perception, learning, and social behavior. Two decades later, however, concern with aspects of human development not so easily modeled in the laboratory led to a surge of basic research in the familial, social, and historical context of child development (Bronfenbrenner, 1979; Kessen, 1979; McCall, 1977). Curiously, the cultural dimension was still neglected. Even Bronfenbrenner, whose innovative ecological model was highly influential in moving developmental psychology out from the laboratory into "the real world," dismissed the cross-cultural literature as scientifically weak and "limited to variations that presently exist or have occurred in the past" (Bronfenbrenner, 1979, p. 40). More recently, recognition of the historical origins of contemporary diversity within the United States has widened psychologists' vision further (Garcia-Coll & Garrido, 2000; Greenfield & Cocking, 1994).

> When the Duke of York seized the Dutch colonies in North America in 1664, Garrit van Swearingen, a Dutchman who had worked for the East India Trading Company and was then employed by a settlement owned by the City of Amsterdam on the Delaware River, migrated to St. Mary's City, Maryland. There he established an inn and around 1685 opened what is sometimes claimed to be the first coffee house in North America. Less than a century later coffee was an immensely popular drink in America, and "coffee houses" – more like taverns than the Viennese establishments – had become a standard location for the delivery of postal services. Coffee became even more popular in colonial America following the Boston Tea Party. (Anonymous, 2004; Marr, 2004)

In the interdisciplinary context of the Social Relations department at Harvard, where laboratory developmentalists, policy gurus, and field anthropologists were all appropriate mentors and role models, it seemed relatively

straightforward for a student to pursue a line of research that would provide more information about the development of non-Western children than was available to Chamberlain seven decades earlier, or in the contemporary literature of the late 1960s. Other psychologists, too, were beginning to focus their efforts in this direction (Cole, Gay, Glick, & Sharp, 1971; Dasen, 1976; Munroe & Munroe, 1971). Of particular interest to this student was the set of changes in cognition that have been found to occur around age 6 years, in the U.S.-based literature. Chamberlain made an extended comparison of young (Euro-American) children with the "feeble-minded," criminals, and the unschooled children of "savages," observing both similarities and differences. This line of analysis was taken up in greater detail half a century later by Heinz Werner (1948), also at Clark University. His conclusion – that particularly human kinds of higher order thinking develop in humans only during middle childhood, do not develop in lower animals, and are vulnerable to many kinds of mental disorder – provides a theoretical background for what came to be known as the "five-to-seven shift" (White, 1965; Sameroff & Haith, 1996).

White (1965, 1970), in particular, assembling diverse strands of evidence, noted that in all major theories of development the period around age 6 years assumes particular importance. Piaget and his associates located the beginnings of rational, operational thought at this time (Inhelder & Piaget, 1964). Similarly, Soviet psychologists emphasized that higher order processes overlay the mechanisms of classical conditioning beginning around 6 years of age (Luria, 1961; Vygotsky, 1962). American mediation theorists, in their expansion of traditional learning theory, pointed to a similar process in the sixth year, as language comes to play an increasing role in conceptual learning (Kendler, 1963). Even Freud, for whom cognition was not a central concern, saw in the resolution of the Oedipal conflict the emergence of inhibitory systems in the superego, and thus a new level of cognitive control. For each theorist, in different languages and from different data, the period around 5 to 7 years old is seen as the beginning of a dramatically more mature organization of the mind, the beginning of a new stage of development. Fischer and Silvern (1985), setting strict criteria for what can be considered nonlinear, developmental stage shifts, concluded that changes at age 6 or 7 years fulfill the definition completely. One must note, however, that this is also the age at which Western children typically begin formal didactic instruction. Thus, it cannot easily be discerned whether the introduction of schooling causes or reflects this profound change in mentation. One might hope, given all the evidence accumulated and reviewed, that psychologists had succeeded in learning something fundamental about the development of human children,

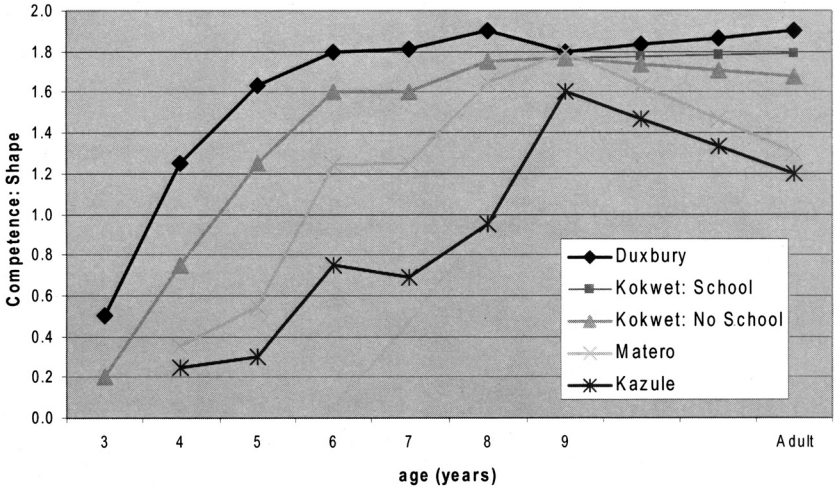

Figure 1.1. Age-related competence in copying shape.

not simply of schooled Euro-Americans; but only studies outside of Western cultures and Western schooling can truly address this question.

Therefore, two related field projects were undertaken, the first a pilot study in Zambia (Super, 1972) and the second a broader investigation in rural Kenya (Super, 1991; Super & Harkness, 1986). The Kenyan project took place in Kokwet, a rural farming area of Kipsigis-speaking people in the Western Highlands, where few children went to school at the time the data were collected in the mid-1970s. The Zambian data were collected in 1968 from two sites: Matero, a working-class housing development in Lusaka, populated by immigrants from many rural areas of the country; and Kazule, a farming area of Chewa people, more isolated and less prosperous than Kokwet. Additional data were collected for comparative purposes in Duxbury, Massachusetts, the second oldest European settlement in New England, now a prosperous, distant suburb of Boston. In the figures that follow, each data-point represents about 10–15 individuals.

Figure 1.1 shows the percent of persons at each age from each sample who correctly copied from sight "Figure A" of the Bender Gestalt test (Bender, 1938). This classic test has had wide use for the assessment of neurological functioning in children and in adult clinical patients. The greatest improvement in performance is observed prior to school entry in U.S. samples, according to Koppitz (1960). Responses here were scored according to a variation of her system, yielding a three-point scale for accuracy in shape and in internal orientation (rotation). The test figure consisted of a circle and a diamond

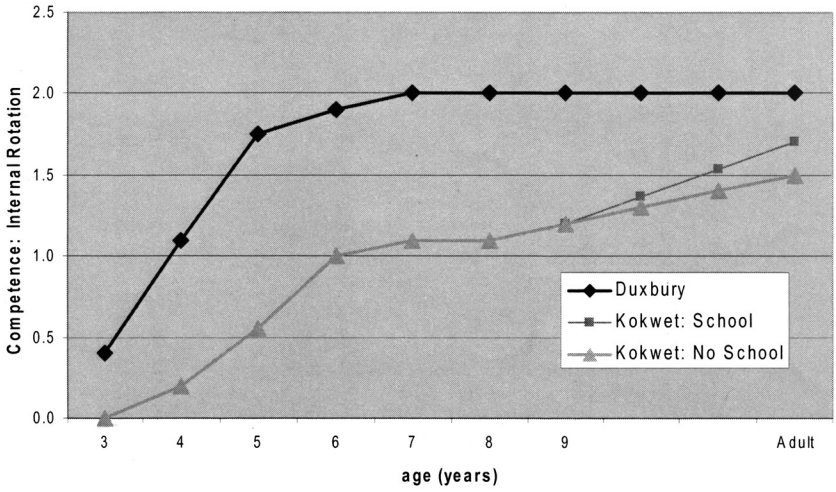

Figure 1.2. Age-related competence in maintaining orientation.

(square rotated 45 degrees) placed next to each other and just touching, drawn in black ink on a 5″ × 7″ white card. Children's common errors in copying the shapes include extra or missing angles in the diamond, and failure to close the circle. Placement of the two parts of the figure relative to each other is the feature of responses coded as internal orientation; in the model, one point of the diamond touches the circle such that a projection of the diamond's axis is horizontal for the viewer and would pass through the circle's center point – a deviation of 45 degrees or greater is scored as an error. In both cases, the scores shown here are for competence or the absence of errors.

Figure 1.1 presents the results for competence in copying the shape of the two subfigures. The most striking similarity among all the samples is the timing of reduction in distortions of shape, being very rapid in the first few years; and there is a curious pause in all samples between ages 6 and 7 years. Overall, analysis of variance using ages 3 to 9 years indicates that both the Age and the Sample effects are highly significant ($p < 0.0001$). There is no formal Interaction effect, and it is evident that the more urban and educated the group – thus, the more exposed to writing and graphical representation – the earlier full competence is achieved. By age nine, virtually all the children perform well, regardless of experience. The adult cohorts differ in expectable ways, given their histories, and all but the closest means are statistically different from each other ($p < 0.05$).

Figure 1.2, showing competence in copying the two subfigures in their original relationship to each other, reveals a somewhat similar but more

pronounced configuration. In this case, almost all the improvement takes place before age 7. In Duxbury, all the children perform perfectly at this point. In Kokwet, this graphic convention is virtually absent in the children's environment and overall competence is only half as great. What is striking, however, is that progress before age 7 is quite rapid – indeed at the same pace as in Duxbury – and then it too levels off.

In summary, these two measures of basic graphic analysis and reproduction reveal a striking similarity in the timing of growth across all the environments studied and also differences in the degree to which these emerging potentials are exercised and elaborated. The argument for a "five-to-seven shift," however, aims at changes far more pervasive than a single modality of perception. A second set of tasks, therefore, assessed changes in a classic area of cognitive development, the organization of verbal memory.

There is a general contrast in psychological theories of cognitive development that compares organization based on abstracted, structural categories on the one hand and on the other, organization based on physical features or practical function. The more formal and abstract method is usually considered the more "mature" and "normal" for adult humans (Werner, 1948). In the literature on word associations tasks, category-based paradigmatic responses given by adults – such as *cat* with *dog* – are contrasted with the syntagmatic responses more typical of children, such as *dog–bark* or *dog–brown* (Brown & Berko, 1960; Nelson, 1977). A related task, the one used here, examines the way subjects actively, but not necessarily consciously, restructure words presented for memorization. For example, given the list *orange – ax – knife – tree*, a subject might later recall them as *ax* and *knife, tree* and *orange*, putting together the two tools and then the two plant items. Or, the response might be *ax* and *tree, orange* and *knife*, making two functional pairs. Use of the more abstract and categorical form is a central distinction in the Piagetian tradition (Inhelder & Piaget, 1964) as well as in U.S. intelligence tests (Wechsler, 1944). The developmental literature generally marks age 6 years as the turning point.

In the present study two lists were prepared, one with functional pairs (e.g., *food–eat*) and one with categorically related pairs (e.g., *come–go*), following the procedure used by Denney and Ziobrowski (1972). Each list was read to the subject in a pseudo-random order (no paired words adjacent), and after the child recalled as many as possible the full list was repeated two more times with a different order of words. Individual scores were computed as the conditional probability of listing the second word of a pair immediately following the first, if the first was recalled (or vice-versa). The results indicate first that older subjects use both kinds of implicit structure in the word lists more than

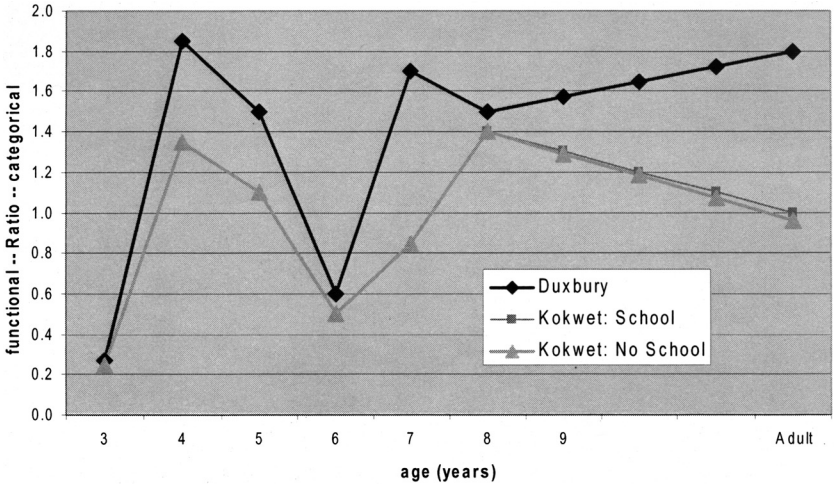

Figure 1.3. Age-related changes in the organization of recalled words.

younger ones; that is, their conditional probability of sequentially pairing the matched words – regardless of the basis of pairing – is generally greater than that for the younger subjects. In addition, however, the results also reveal that the use of each kind of pairing relative to the other shifts considerably from age to age, and that the shape of this year-to-year change in the categorical: functional ratio is remarkably similar in the two samples (Figure 1.3). The initial growth in category-based clustering is suddenly reversed at age 6 in both samples, and then it recovers. The age trends are highly significant, whereas there are no significant differences by group during childhood. In adulthood, culturally based preferences are more evident (Super, Harkness, & Baldwin, 1977).

A third point of comparison between the children in Duxbury and Kokwet relates to self-concept, or consciousness of the self as an independent agent in the world. David Foulkes (Foulkes, 1982; Foulkes, 1999) has summarized an extensive set of data on children's dreams to argue that there is an "intimate relationship between consciousness and the development of self-identity" (Foulkes, 1999, pp. 150–151). This is exquisitely revealed, he indicates, in the surprisingly late appearance of dreaming (during the late preschool years), and by the actual content of recorded dreams. Young children, under 4 or 5 years, do not usually appear in their own dreams; rather, the dreamscape is as one might see through one's own eyes. Around age 6, Foulkes reports, children begin to report their own presence in their dreams, first as passive observers of the ongoing events, then finally as active participants. The differences

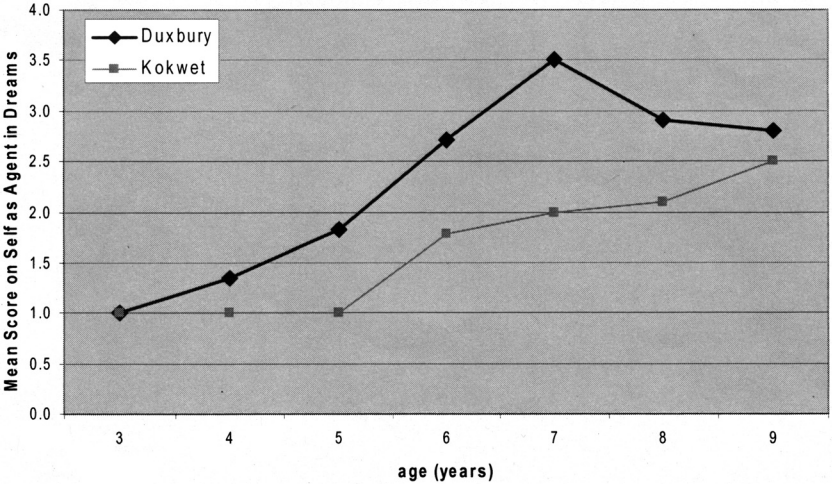

Figure 1.4. Age-related changes in representation of the self in dreams.

are captured in (1) "There was a lion," (2) "I was standing there and a lion appeared," (3) "I was being chased by a lion, and (4) "I was chased by a lion, but I ran home and locked myself in." Scoring of responses in the present study used a 4-point scale, corresponding to these four presentations.

Dream stories were somewhat more difficult to collect than drawings or memory tests, especially at the youngest ages, but a sufficient number of children succeeded in recounting a recent dream to produce reliable results, presented in Figure 1.4. In both sites, there is considerable growth in the presentation of the self as an active agent in dreams during the years 5 to 7, with a slightly earlier start and peak in Duxbury, where verbal commentary about oneself, and reflective engagement with young children are much more common. (The group differences are marginally different, $p < 0.07$, age $p < 0.001$.)

One outcome of extended fieldwork – living with the people one studies – is that many of the unstated assumptions and practices become evident. In all the figures shown here, there is a relative lag in the African children's performance in the early years. Some of these group differences may reflect true differences in competence, as there is such different emphasis on the particular skills assessed here in these two niches of childhood. The distinction between competence and performance is important to highlight here, however, as there is also a dramatic difference between samples in the children's familiarity with the testing situation. In the more traditional, rural African samples

(Kokwet and Kazule), it is an unprecedented and no doubt anxiety-arousing social context. Never have these young children sat down alone, facing an adult, to be asked questions to which the adult knew the answer, or to be asked to perform arbitrary and unfamiliar tasks. Rather, obedient silence in the presence of elders and the parallel modeling of behaviors were the norms for relating and learning (Harkness & Super, 1977; Harkness, 1988). The social act of being evaluated in this way, in other words, is itself a culturally constructed and differentially familiar test. Short of testing silent obedience, sibling care, and animal tending, therefore, it is not surprising that the African children generally score below Americans – these are American tests used here.

In light of this observation, it is all the more striking to see such parallels in the rate of growth in competencies related to the 5-to-7 shift. In the diverse domains of visual analysis and construction, memory organization, and self-concept, the children of Kokwet and Duxbury undergo rapid growth in a surprisingly similar manner, in several instances with nearly identical nonlinear shifts (Figures 1.2 and 1.3).

Cross-cultural comparisons are often framed as investigations into which aspects of human behavior are universal and which are culturally specific. The developmental perspective offered here suggests that all human behaviors are both: They are culturally specific instantiations of universally emerging potentials. According to this view, healthy children everywhere undergo very similar developments and transformations in their mental functioning, according to a sequence and general timing that is characteristic of our species. Directing the emerging competencies to particular tasks in specific contexts, and managing their refinement, is what cultures do. The more redundant – across time, across scale, and across context – are the particular demands in the culturally structured developmental niche, the more fundamental to that culture is the ultimate behavioral skill (Super & Harkness, 1999).

> Coffee was introduced as a crop in the New World in the early 18th century by Gabriel Mathieu de Clieu, a young naval officer posted to Martinique who, refused a cutting of this wonderful plant from the Royal Botanical Garden in Paris (a gift to Louis XIV from the mayor of Amsterdam), simply stole it. Coffee production in the French Caribbean became plentiful and profitable. The French, like the Arabs and Dutch before them, tried to protect their local monopoly. But in 1727 Lt. Col. Francisco de Melo Palheta, sent to French Guiana by the Emperor of Brazil, seduced the wife of the French governor while mediating a border dispute. At the state dinner for the Brazilian's departure,

> the governor's wife presented him with a grand bouquet, and deep inside the floral arrangement was a sampling of coffee seeds. A century later, Brazil emerged as the largest producer of coffee in the world, a distinction it still holds today. (Anonymous, 2004)

The roots of psychology, like those of coffee, are in the Old World. In both cases, the New World variety has prospered in its climate and it has grown to dominate the world market. Knowledge of human development, however, is a different commodity. Brazilian coffee is just as flavorful and warming in Reykjavik as it is in Rio di Janero, but knowledge of North American children is less useful in either of those places than it is where it was grown, in North America. For reasons of distance, time, and money, as well as discipline-centric research, we have only the beginning of a science of human children, even more than a century after Chamberlain. In trade, finance, technology, and media, the pace of globalization has increased asymptotically in the past decade. There is some reason to believe the same is beginning to happen in the study of children, as evidenced by two related trends.

The first reflects the fact that we are now a full academic generation beyond the creation of developmental psychology in the late 1950s. In that time Europe has rebuilt from the trauma and destruction of World War II, Cold War barriers have fallen, and all but the most impoverished and isolated countries of the Third World have at least started to develop their own academic strength in the social and behavioral sciences. A century ago it was still the case that Americans went to England, Germany, or France for advanced education in the social and psychological sciences. Half a century ago, the production of knowledge shifted its center of gravity to North America, and a quarter a century ago the flow of students had reversed as well. Now many of those students who studied in North America have returned to their homeland and have carried with them the seeds of knowledge garnered in their New World doctoral education. This is true both generally and specifically in developmental science. To cite one example, 1989 marked the first non-American to win the American Psychological Association's Dissertation Award in Developmental Psychology; Dymphna van den Boom, the recipient, is now Professor at the University of Amsterdam. (Interestingly, it was also in 1989 that the APA first gave its G. Stanley Hall award to a non-American, to Jacqueline Goodnow – save to Piaget, when the award was first begun.) The increasing contribution of developmentalists based outside the United States can be seen in Figures 1.5 and 1.6, which show, respectively, the locality of the institutional base for published authors in two leading journals, *Developmental Psychology* and *Child Development* (both of which are

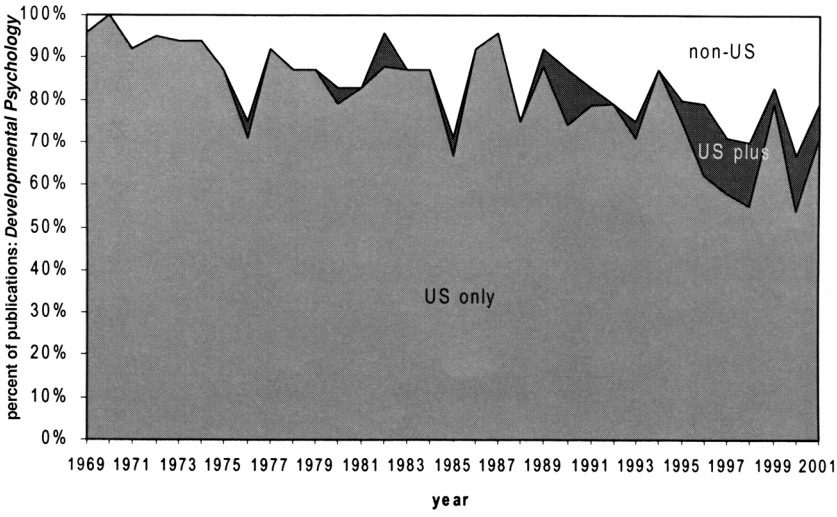

Figure 1.5. Trends in global location of *Developmental Psychology's* authors.

published by U.S. professional organizations, the APA and SRCD respectively). We examined four randomly chosen, empirical reports per issue and found that although the vast majority of reports continue to be from scientists at U.S. institutions, there is nevertheless a significant trend to publish work

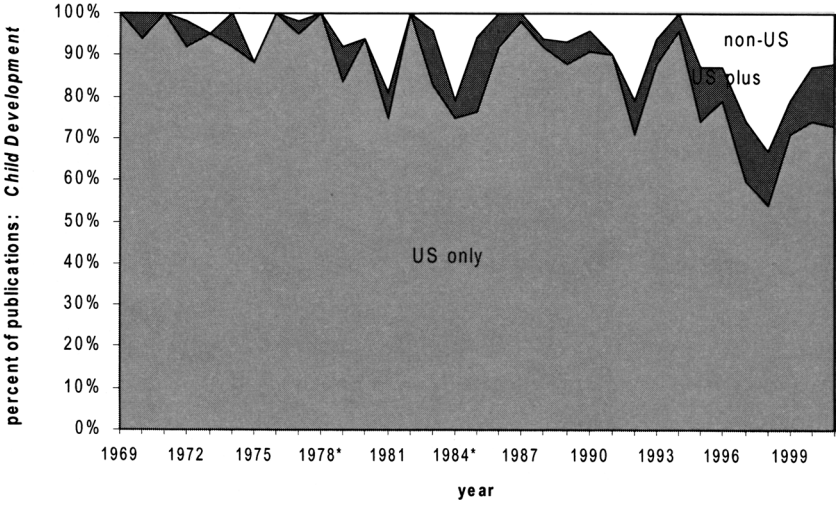

Figure 1.6. Trends in global location of *Child Development's* authors.

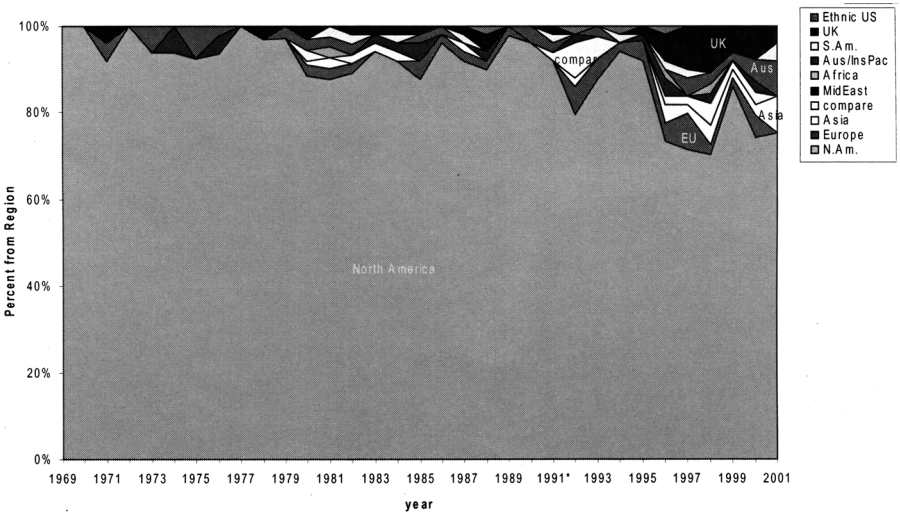

Figure 1.7. Trends in global location of children studied.

by researchers from other parts of the world, sometimes in collaboration with U.S. researchers, but primarily in their own right.

The second, related, trend is that the children whose development is reported are increasingly more likely to be living outside of North America. Figure 1.7 illustrates this finding, summed across both journals. It is still the case that 80% of the literature is based on mainstream U.S. children, but there is a distinct trend toward a more global sampling. Limiting the effectiveness of this trend, however, the number of reports about children who are not embedded in a predominantly European cultural context (that is, Europe, North America, and Australia) remains quite small. Further, the number of studies that are directly comparative in their design, and thus uniquely powerful in their conclusions, are a scattered few.

Despite the small presence, even now, of non-U.S. children in the primary developmental literature, the issue of cultural processes and representation has come to loom relatively large in the current phase of developmental science. Almost all introductory textbooks for child development are now explicit in their claim to include cross-cultural findings, and in 1995 "culture" was for the first time the most frequently indexed term in papers presented at the annual meetings of the Society for Research in Child Development. There is an emerging recognition that traditional developmental theory is so fundamentally based on North American children that it is of limited value in

understanding human development around the world (Rubin, 1998; Super & Harkness, 1999).

> In December 2001, Starbucks of Seattle, USA, opened a coffeehouse on Karntner Strasse in Vienna, directly opposite the Sacher Hotel, home of the Sachertorte, and around the corner from the Café Mozart. This global reach of the American corporate empire back to a mythic origin of the Old World coffeehouse was noteworthy for both its business and symbolic significance. Despite dire predictions of cultural resistence by the proud and conservative Viennese, Starbucks has thrived there. (Erlanger, 2002)

Brief histories, recounted for a purpose, are almost always "mythic," as White intended the term. The stories presented here are like that, even the fable of Kolscitsky and his coffeehouse: Johannes Diodato, a Greek resident of Vienna, actually opened a coffeehouse a year before Kolscitsky (Augustin, 2003). A proper history of science goes beyond the mythic, beyond a statement of dates and recounting of who did what. It is necessarily an intellectual history also. It tells us something about the sequential elaboration of human knowledge over generations, and thus it also tells us about the human mind in aggregate as well as in the individual. "The historical approach to understanding of scientific fact is what differentiates the scholar in science from the mere experimenter" (Boring, 1961).

Among the many interesting thematic observations derived by Heinz Werner in his examination of mental development was the "orthogenic principle," which states that development proceeds by alternating periods of differentiation and integration (Werner, 1948). He was speaking of the individual child, from embryology through cognition, but a similar pattern can be seen in the emergence of a truly interdisciplinary science of development. There have been, to date, two complete orthogenic cycles. In the beginning – as with the fertilized ovum – there is differentiation from a unitary if complex origin. Here, the basic social scientific disciplines emerged around the turn of the 20th century, and they worked to distinguish themselves both from each other and from applications of their accumulating knowledge. After some decades, the press for integrating the now-established knowledge bases grew strong enough for institutional recognition, and the 1920s and 1930s were witness to such efforts as the National Research Council's Committee on Child Development and the founding of the Society for Research in Child Development (Smuts, 1985). There was at the same time a deliberate effort to integrate academic science with reform and educational efforts in society at large (Schlossman, 1983).

The second cycle began with differentiation of subdisciplines within psychology and the other social and behavioral sciences, part of the dramatic increase in the scientific enterprise that emerged in the 1950s. It is during this period, for example, that the American Psychological Association added many of its now 53 official divisions, marking specialities within the profession. The subsequent revolution in applying the lessons of developmental psychology, and in breaking free of the restrictive experimental paradigm, began the integration phase of this second cycle. The inauguration of the national Head Start program in 1965 (whose first director, Edward Zigler, is a developmental psychologist) brought together narrow developmental perspectives with more sociological, medical, and nutritional ones, as well as concerns with families and eventually even adult development. Shortly thereafter, as noted above, standing paradigms of developmental research were called into question by a number of authors (Bronfenbrenner, 1979; Kessen, 1979; McCall, 1977). At the same time, several new scholarly associations were formed deliberately to cut across disciplinary boundaries: the International Society for the Study of Behavioral Development in 1969, the International Association for Cross-Cultural Psychology and the Society for Cross-Cultural Research in 1972, and the Society for Psychological Anthropology in 1977.

With this last period of integration has come, even if slowly, the realization that some aspects of development may proceed with different trajectories in different environments, and that relationships once taken to be directly causal may reflect as much about the larger organization of the social and cultural environment as about the universal nature of human development. The cultural anthropologist A. F. C. Wallace (Wallace, 1961) once pointed out that cultures organize the variation within themselves. Because the niche of human development is organized and dynamically regulated by culture (Super & Harkness, 1999), individual features such as sex or temperament will have different meanings, different settings to exploit, and thus different developmental consequences in, for example, North America and China (Chen, Rubin, & Li, 1995; Ember, 1981; Super & Harkness, 1993). Similarly, specific child-rearing behaviors may have variable effects, depending on other aspects of the developmental environment such as local meaning systems and relationship structures. Hess and his colleagues found this for the effect of maternal socialization style on cognitive development, comparing Japanese and mainstream U.S. samples (Hess & Azuma, 1990), as did Deater-Deckard and colleagues regarding the effect of parental punishment style on childhood aggression, comparing ethnic groups within the United States (Deater-Deckard, Dodge, Bates, & Pettit, 1996). As findings we once considered to