about similarities and differences across cultural communities in how people learn and develop. They discuss concepts to relate individual and cultural processes, expanding on the overarching orienting concept: that humans develop through their changing participation in the sociocultural activities of their communities, which also change.

2

Development as Transformation of Participation in Cultural Activities

Some decades ago, psychologists interested in how cultural processes contributed to human thinking were puzzled by what they observed. Their puzzlement came from trying to make sense of the everyday lives of the people they visited by using the prevailing concepts of human development and culture. Many of these researchers began to search for more useful ways to think about the relation of culture and individual functioning.

In this chapter, I discuss why then-current ideas of the relation between individual and cultural processes made these researchers' observations puzzling. A key issue was that "the individual" was assumed to be separate from the world, equipped with basic, general characteristics that might be secondarily "influenced" by culture. An accompanying problem was that "culture" was often thought of as a static collection of characteristics. After examining these assumptions, I discuss the cultural-historical theory that helped to resolve the researchers' puzzle, focusing on my own version of it. In my view, human development is a process in which people transform through their ongoing participation in cultural activities, which in turn contribute to changes in their cultural communities across generations.

Together, Chapters 2 and 3 argue for conceiving of people and cultural communities as mutually creating each other. Chapter 2 focuses on concepts for relating cultural processes to the development of individuals. Chapter 3 addresses the companion issue of how we can think of cultural

communities as changing with the contributions of successive generations of people.

A Logical Puzzle for Researchers

North American and European cross-cultural psychologists of the 1960s and 1970s brought tests of children's cognitive development from the United States and Europe to foreign places. These tests were often derived from Jean Piaget's stage theory or were tests of classification, logic, and memory.

The aim was to use measures of thinking that bore little obvious relation to people's everyday lives, to examine their ability independent of their background experience. So researchers asked people to say whether quantities of water changed when poured into different-shaped beakers, to sort unfamiliar figures into categories, to solve logic problems that could only be solved with the stated premises rather than using real-world knowledge, and to remember lists of nonsense syllables or unrelated words.

The idea was that people's "true" competence, which was assumed to underlie their everyday performances, could be discerned using novel problems that no one had been taught how to solve. People's level of competence was regarded as a general personal characteristic underlying widely different aspects of their behavior without variation across situations. The tests sought to determine general stages of thinking or general ability to classify, think logically, and remember. Some individuals (or groups) were expected to be at "higher" stages or to have better classification, logical, and memory abilities——in general——than other people. Cross-cultural research was used to examine, under widely varying circumstances, what environmental factors produced greater "competence."

The puzzle was that the same people who performed poorly on the researchers' tests showed impressive skill in reasoning or remembering (or other cognitive skills that the tests were supposed to measure) outside of the test situation. For example, Michael Cole noted that in a community in which people had great difficulty with mathematical tests, great skill was apparent in the marketplace and other local settings: "On taxi-buses I was often outargued by the cabbies, who seemed to have no difficulty calculating miles, road quality, quality of the car's tires, number of passengers, and distance" (1996, p. 74).

With the assumption that cognition is a general competence characterizing individuals across situations, such unevenness of performance was puzzling. To try to resolve the difference in apparent "ability" across situations, researchers first tried making the content and format of the tests

more familiar, to find "truer" measures of underlying competence. Researchers also tried parceling competence into smaller "domains," such as biological knowledge and physical knowledge or verbal and nonverbal skills, so that the discrepancies across situations were not as great. (This remains an active approach in the field of cognitive development.)

Researchers also began to notice that although the tests were not supposed to relate to specific aspects of people's experience, there were links between performance on the tests and the extent of experience with Western schools and literacy. It was tempting to conclude that school or literacy makes people smarter, but the researchers' everyday observations challenged that interpretation. Instead, researchers such as Sylvia Scribner and Michael Cole and their colleagues began to study the specific connections between performance on tests and experience in school. (In Chapter 7, on culture and thinking, I focus in more detail on this research and the findings.)

An Example: "We always speak only of what we see"

An example of a logical problem will serve to illustrate the connection between schooling and test performance. A common test of logical thinking is the syllogism, like those employed during the 1930s by Alexander Luria. In Luria's study, an interviewer presented the following syllogism to Central Asian adults varying in literacy and schooling:

> In the Far North, where there is snow, all bears are white. Novaya Zemlya is in the Far North and there is always snow there. What color are the bears there?

Luria reported that when asked to make inferences on the basis of the premises of syllogisms, literate interviewees solved the problems in the desired manner. However, many nonliterate interviewees did not. Here is the response of a nonliterate Central Asian peasant who did not treat the syllogism as though the premises constituted a logical relation allowing an inference:

> "We always speak only of what we see; we don't talk about what we haven't seen."
>
> [The interviewer probes:] But what do my words imply? [The syllogism is repeated.]
>
> "Well, it's like this: our tsar isn't like yours, and yours isn't like ours. Your words can be answered only by someone who was there; and if a person wasn't there he can't say anything on the basis of your words."

[The interviewer continues:] But on the basis of my words — in the North, where there is always snow, the bears are white, can you gather what kind of bears there are in Novaya Zemlya?

"If a man was sixty or eighty and had seen a white bear and had told about it, he could be believed, but I've never seen one and hence I can't say. That's my last word. Those who saw can tell, and those who didn't see can't say anything" (At this point a younger man volunteered, "From your words it means that bears there are white.")

[Interviewer:] Well, which of you is right?

"What the cock knows how to do, he does. What I know, I saw, and nothing beyond that" (1976, pp. 108–109)

This peasant and the interviewer disagreed about what kind of evidence is acceptable as truth. The peasant insisted on firsthand knowledge, perhaps trusting the word of a reliable, experienced person. But the interviewer tried to induce the peasant to play a game involving examination of the truth value of the words alone. The nonliterate peasant argued that because he had not personally seen the event, he did not have adequate evidence, and implied that he did not think that the interviewer had adequate evidence either. When the schooled young man made a conclusion on the basis of the unverified premises stated in the problem, the nonliterate man implied that the younger man had no business jumping to conclusions.

Like this peasant, many other nonliterate interviewees refused to accept that the major premise is a "given" and protested that they "could only judge what they had seen" or "didn't want to lie." (This pattern has been replicated in other places by Cole, Gay, Glick, & Sharp, 1971; Fobih, 1979; Scribner, 1975, 1977; Sharp, Cole, & Lave, 1979; and Tulviste, 1991.) If non-literate interviewees were not required to state the conclusion, but were asked instead to evaluate whether the hypothetical premises and a conclusion stated by the researcher fit logically, then they were willing to consider such problems as self-contained logical units (Cole et al., 1971).

The argument of the nonliterate peasant studied by Luria shows quite abstract reasoning regarding what one can use as evidence. Indeed, Luria noted that nonliterate peoples' reasoning and deduction followed the rules when dealing with immediate practical experience; they made excellent judgments and drew the implied conclusions. Their unwillingness to treat syllogisms as logical problems is not a failure to think hypothetically. An interviewee explained his reasoning for not answering a hypothetical question: "If you know a person, if a question comes up about him, you are able to answer" (Scribner, 1975, 1977). He reasoned hypothetically in denying the possibility of reasoning hypothetically about information of which he had no experience.

Syllogisms represent a specialized language genre that becomes easier to handle with practice with this specialized form of problem (Scribner, 1977). In school, people may become familiar with this genre through experience with story problems in which the answer must be derived from the state-ments in the problem. Students are supposed not to question the truth of the premises but to answer on the basis of the stated "facts."

Being willing to accept a premise that one cannot verify, and reasoning from there, is characteristic of schooling and literacy. This commonly used test of logical "ability" thus reflects specific training in a language format that researchers are likely to take for granted, as highly schooled in-dividuals themselves. The puzzles questioned assumptions of generality.

Researchers Questioning Assumptions

Cultural researchers sought alternative ways to think about the relationship of individual development and cultural processes. The assumption that the characteristics of both children and cultures were general seemed to be part of the problem.

The researchers became suspicious of the idea that children progress through monolithic, general stages of development. They noted that peo-ple's ways of thinking and of relating to other people are in fact not broadly applied in varying circumstances.

Researchers also noticed similar shortcomings in treating culture as a monolithic entity. The effect of being a "member of a culture" had been as-sumed to be uniform across both the members and the situations in which they functioned. For example, whole cultural groups were sometimes char-acterized as oral, complex, or interdependent (in different research tradi-tions). When researchers saw that members of a community often differed from each other on such dimensions and that the dimensions seemed to apply more in some circumstances than others, this called into question the whole business of trying to discern the "essence" of a culture.

Currently, scholars think about the relation of individual development and cultural processes in a variety of ways that try to look more specifically at individual and cultural attributes. Our understanding has benefited from attempts to make more fine-grained analyses of individual characteristics, domains of thinking, and cultural attributes.

However, I believe that some of the problems that remain require re-thinking our basic ideas about the relation between individuals and cultural communities. I argue against the still common approach of treating indi-viduals as entities separate from cultural processes, existing independently of their cultural communities. Such approaches look for how "culture" ex-erts "influence" on the otherwise generic "child."

The remainder of this chapter focuses on how we can conceptualize human development as a cultural process in which all children develop as participants in their cultural communities. First I present several approaches that have been quite influential and helpful: the work of Mead, the Whitings, and Bronfenbrenner. Then I argue that we can solve some problems by discarding the often unspoken assumption that individual and culture are separate entities, with the characteristics of culture "influencing" the characteristics of individuals.

Many researchers, including myself, have found the cultural-historical theory proposed by Lev Vygotsky to be quite helpful, and in recent decades many scholars have built on his theory. Vygotsky's influential book *Mind in Society* (1978) was introduced to the English-speaking world by some of the same researchers (including Cole and Scribner) who struggled with the puzzle of people's varied performance on cognitive tests and everyday cognitive activities. Vygotsky's theory helped connect individuals' thinking with cultural traditions such as schooling and literacy.

In the last part of this chapter, I describe my approach, which builds on the prior work. I conceive of development as transformation of people's participation in ongoing sociocultural activities, which themselves change with the involvement of individuals in successive generations.

Concepts Relating Cultural and Individual Development

Margaret Mead's pioneering work demonstrated how passing moments of shared activity, which may or may not have explicit lessons for children, are the material of development. Her careful observations of filmed everyday events, long before the introduction of portable videotape technology, helped to reveal cultural aspects of individual acts and interactions. Several related lines of investigation have provided models to help researchers think about the relation of individual development and cultural processes.

Two key approaches, Whiting and Whiting's psycho-cultural model and Bronfenbrenner's ecological system, will serve the purpose of describing how the relationship has been conceptualized. Several other current approaches, including cultural-historical perspectives, build on the work of these pioneers. In this section, I describe some of the ideas offered by these models. They have provided key concepts and sparked pathbreaking research. However, I want to raise a concern that the ways the models have diagrammed the relation between the individual and the world lead us, perhaps unintentionally, to a limiting view of individual and cultural processes—as
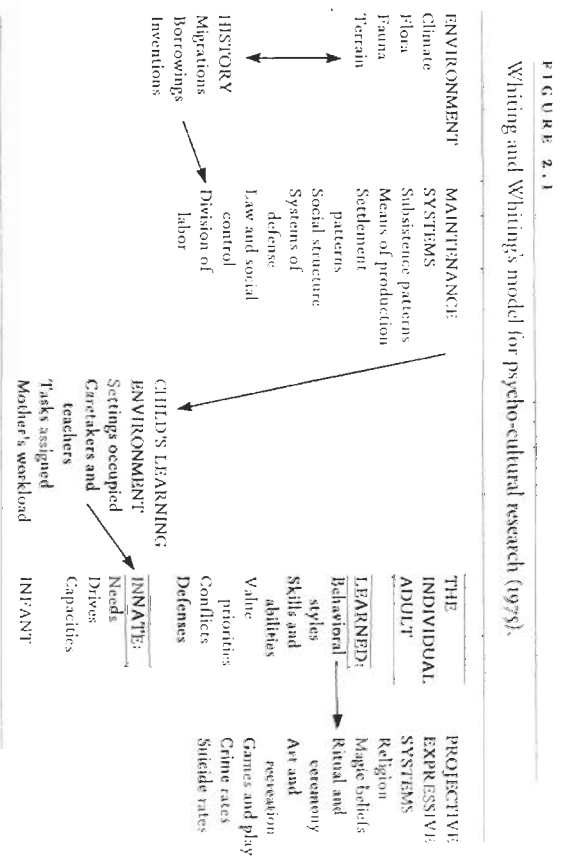
separate entities. My concern is relevant to most diagrams relating individual and cultural processes throughout the social sciences.

Whiting and Whiting's Psycho-Cultural Model

Beatrice Whiting and John Whiting (1975) provided a "psycho-cultural model" of the relations between the development of individuals and features of their immediate environments, social partners, and institutional and cultural systems and values. This perspective stresses that understanding human development requires detailed understanding of the situations in which people develop— the immediate situations as well as the less immediate cultural processes in which children and their partners (and their ancestors) participate.

The Whitings urged a deeper understanding of cultural processes than is often the case in studies that simply relate children's development to broad categories such as culture, social class, and gender. Beatrice Whiting (1976) pressed scholars to "unpackage" these variables rather than treating them as broad packages of unanalyzed "independent variables." She emphasized that the cast of characters and settings in which children act are extremely influential in determining their course of development.

Whiting and Whiting's model (see figure 2.1) presented human devel-

FIGURE 2.1
Whiting and Whiting's model for psycho-cultural research (1975).

ENVIRONMENT	MAINTENANCE SYSTEMS	CHILD'S LEARNING ENVIRONMENT	THE INDIVIDUAL ADULT	PROJECTIVE EXPRESSIVE SYSTEMS
Climate	Subsistence patterns	Settings occupied	LEARNED:	Religion
Flora	Means of production	Caretakers and teachers	Behavioral styles	Magic beliefs
Fauna	Settlement patterns	Tasks assigned	Skills and abilities	Ritual and ceremony
Terrain	Social structure	Mother's workload	Value priorities	Art and recreation
	Systems of defense		Conflicts	Games and play
	Law and social control		Defenses	Crime rates
	Division of labor		INNATE:	Suicide rates
			Needs	
			Drives	
			Capacities	

HISTORY
Migrations
Borrowings
Inventions

INFANT

opment as the product of a chain of social and cultural circumstances surrounding the child. The chain began with the environment (including the climate, flora and fauna, and terrain) and led to the history of the group's migrations, borrowings, and inventions). This in turn led to the group's maintenance systems (subsistence patterns, means of production, settlement patterns, social structure, systems of defense, law and social control, and division of labor). This led to the child's learning environment, which consisted of their routine settings, caretakers and teachers, tasks assigned, and mother's workload. Then the chain arrived at the individual, including the innate needs, drives, and capacities of the infant as well as learned behavioral styles, skills, value priorities, conflicts, and defenses.

The Whitings' model contained a set of assumptions regarding the underlying direction of causality, with arrows leading from the environment and history to the child's learning environment to the individual's development. Whiting and Whiting (1975) assumed that maintenance systems determine to a large extent the learning environment in which a child grows up, and the learning environment influences the child's behavior and development.

These assumptions provided Whiting and Whiting and their research team with a framework that allowed important advances in understanding culture and child development in their landmark *Six Cultures Study* (1975). Their focus on the child's learning environment produced key research findings in the study of the cultural aspects of human development. My own work has been heavily influenced by the Whitings' ideas, and their research can be seen throughout this book.

However, the form of their diagram carries implicit assumptions that tend to constrain how we think about the relation of individuals and cultural practices, in unintended ways. The categories composing the chain are treated as independent entities, and the arrows indicate that one entity causes the next. Thus individual and cultural processes are treated "as if" they exist independently of each other, with individual characteristics created by cultural characteristics.

Bronfenbrenner's Ecological System

Uric Bronfenbrenner's ecological perspective has also contributed important ideas and research on cultural aspects of human development. Bronfenbrenner's model takes a different form from that of Whiting and Whiting, but it raises similar questions about treating individual and cultural processes as separate entities.

Bronfenbrenner stressed the interactions of a changing organism in a changing environment. In his view, the environment is composed of one's

immediate settings as well as the social and cultural contexts of relations among different settings, such as home, school, and workplace. Bronfenbrenner was interested in specifying the properties and conditions of the social and physical environments that foster or undermine development within people's "ecological niches." He defined the ecology of human development as involving

the progressive, mutual accommodation between an active, growing human being and the changing properties of the immediate settings in which the developing person lives, as this process is affected by relations between these settings, and by the larger contexts in which the settings are embedded. (1979, p. 21)

Although this definition states that the person and the settings are mutually involved, elsewhere individuals are treated as products of their immediate settings and "larger" contexts. Bronfenbrenner described his ecological system as being composed of concentric circles, like Russian nesting dolls in which a small figure nests inside a larger one inside a still larger one, and so on (see figure 2.2a).

Like the diagram in Figure 2.1 of categories connected by arrows, Bronfenbrenner's proposal of concentric circles carries the same implicit assumptions about the relation of individual and cultural processes: Individual and "larger" contexts are conceived as existing separately, definable independ-

FIGURE 2.2A

Bronfenbrenner likened his ecological system to Russian nesting dolls.
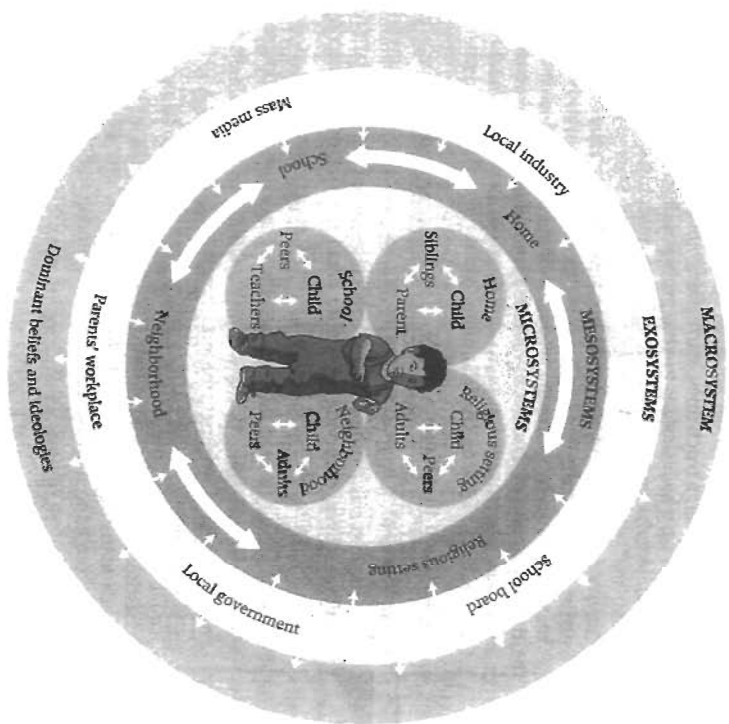
FIGURE 2.2B   Bronfenbrenner's nested ecological system as interpreted in Michael and Sheila Cole's 1996 textbook.

ently of each other, related in a hierarchical fashion as the "larger" contexts affect the "smaller" ones, which in turn after the developing person.

In Bronfenbrenner's system, the smallest, central circle is closest to the individual's immediate experiences (see figure 2.2b). Outer circles refer to settings that exert an influence less directly (through their impact on others), without the individual's direct participation in them. The system is divided into four aspects of the ecology in which individuals function: microsystems, mesosystems, exosystems, and macrosystems. Although I am concerned with how the four systems relate, Bronfenbrenner's articulation of each of these systems is a valuable contribution:

Microsystems, according to Bronfenbrenner, are the individual's inne-

diate experiences—the settings containing the child and others, such as home and school. One of the basic units at the level of microsystems is the dyad (that is, the pair); dyads in turn relate to larger interpersonal structures such as triads (three-person systems, such as mother-father-baby). Even in the most immediate settings, individuals and dyads are crucially dependent on third parties and larger groups.

Mesosystems, in Bronfenbrenner's approach, are the relations among the microsystems in which an individual is involved, for example, the complementary or conflicting practices of home and school. Mesosystems involve relations between and among systems—two or three or more in relation. Bronfenbrenner made the very important point that any one setting (such as the home) involves relations with others (such as school or a religious institution). He emphasized the overlaps and communication between settings and information in each setting about the other. The analysis of mesosystems gives importance to questions such as whether a young person enters a new situation (such as school or camp) alone or in the company of familiar companions, and whether the new setting before they enter. Bronfenbrenner stressed the importance of ecological transitions as people shift roles or settings (for example, with the arrival of a new sibling, entry into school, graduating, finding a job, and marrying).

Exosystems relate the microsystems in which children are involved to settings in which children do not directly participate, such as parents' workplaces if children do not go there. Although children's immediate environments, in which they participate directly, are especially potent in influencing their development, Bronfenbrenner argued that settings that children do not experience directly are also very influential. He referred especially to the role of parents' work and the community's organization: Whether parents can perform effectively within the family depends on the demands, stresses, and supports of the workplace and extended family. The direct impact on children of parents' child-rearing roles is influenced by such indirect factors as flexibility of parents' work schedules, adequacy of child care arrangements, the help of friends and family, the quality of health and social services, and neighborhood safety. Aspects as removed as public policies affect all these factors and are part of the exosystem of human development.

Macrosystems are the ideology and organization of pervasive social institutions of the culture or subculture. Referring to macrosystems, Bronfenbrenner stated:

Within any culture or subculture, settings of a given kind—such as homes, streets, or offices—tend to be very much alike, whereas be-

tween cultures they are distinctly different. It is as if within each society or subculture there existed a blueprint for the organization of every type of setting. Furthermore, the blueprint can be changed, with the result that the structure of the settings in a society can become markedly altered and produce corresponding changes in behavior and development. (1979, p. 4)

Bronfenbrenner's approach makes several key contributions; in particular, it emphasizes studying the relations among the multiple settings in which children and their families are directly and indirectly involved. The idea of examining how children and families make transitions among their different ecological settings is also extremely important. Nonetheless, the separation into nested systems constrains ideas of the relations between individual and cultural processes.

Descendents

The ideas and research of the Whitings and Bronfenbrenner have provided very important guidance for the whole field of work on culture and human development. My own research and ideas are direct descendents from this family of work, intermarried with cultural-historical ideas.

Several other approaches, influenced by the ideas of the Whitings, Bronfenbrenner, and others, focus on *ecological niches* as a way of thinking about the relation of individuals and communities. Tom Weisner, Ron Gallimore, and Cathie Jordan (1988) emphasized important features of children's daily routines for understanding cultural influences:

The personnel who are available and interacting with children

The motivations of the people involved

Cultural "scripts" used by people to guide the way they do things

The type and frequency of tasks and activities in daily routines

The cultural goals and beliefs of the people involved

Charles Super and Sara Harkness (1997) focused on the relations among children's dispositions and three subsystems of the developmental niche:

The physical and social settings in which the child lives

The culturally regulated customs of child care and child rearing

The psychology of the caregivers (including parental beliefs regarding the nature and needs of children, goals for rearing, and shared understandings about effective rearing techniques)

Issues in Diagramming the Relation of Individual and Cultural Processes

In textbooks and scholarly treatises in a number of social science fields, the relation between individual and cultural processes is still commonly diagrammed using entities connected by arrows or contained in concentric circles (like figures 2.1 and 2.2).

These ways of sketching ideas are so familiar that social scientists may not question the assumptions they embody. Visual tools for communicating theoretical ideas constrain our ideas, often without our noticing the constraints. I think it is important to revise the diagrams to be able to represent the idea that cultural and personal processes create each other.

Boxes-and-arrows or nested-circles diagrams constrain our concepts by separating person and culture into stand-alone entities, with culture *influencing* the person (or, in some models, with the two entities interacting). Figures 2.1 and 2.2 portray the individual as separate from the environment (and therefore "subject" to its influences). The separation appears in the unidirectional causal chains between prior and later variables in the Whitings' model and in the hierarchical nesting of the inner system, dependent on those outside it, in Bronfenbrenner's ecological theory.

Behavior (or thought) is often treated as the "outcome" of independent cultural variables. The "influence" of culture on individuals has frequently been studied by "measuring" some characteristics of culture (such as the complexity of social organization in the society) and some characteristics of individuals (such as personality characteristics or measures of intelligence), and then correlating them. This contrasts with approaches that examine the contributions of individuals and cultural practices as they function together in mutually defining processes.

Diagrams separating the individual and the world are so pervasive in the social sciences that we have difficulty finding other ways to represent our ideas. The Whitings and Bronfenbrenner may not themselves have been rightly wedded to the ideas that I suggest are implied by the forms of the diagrams. In a later work, Whiting and Edwards (1988) referred less to causal chains than in the 1975 work in examining associations between gender differences and the company children keep, though still with an aim of determining how settings influence individual development. Similarly, Bronfenbrenner's nesting-doll image was accompanied by the statement that individuals and their settings are related through progressive, mutual accommodation.

Because I am interested in visual representations as tools for thought, I am seeking other ways to portray the mutual relationship of culture

and human development, avoiding the idea that either occurs alone (without the contributions of the other) or that one produces the other. After describing the ways that sociocultural-historical theory treats the relation of individual and cultural processes, I provide some diagrams to portray development as a process of changing participation in sociocultural activities.

Sociocultural-Historical Theory

Many researchers interested in culture and development found in the writings of Lev Vygotsky and his colleagues a theory that laid the groundwork to help integrate individual development in social, cultural, and historical context. In contrast to theories of development that focus on the individual and the social or cultural context as separate entities (adding or multiplying one and the other), the cultural-historical approach assumes that individual development must be understood in, and cannot be separated from, its social and cultural-historical context.[1] According to Vygotsky's theory, the efforts of individuals are not separate from the kinds of activities in which they engage and the kinds of institutions of which they are a part.

Vygotsky focused on cognitive skills and their reliance on cultural inventions such as literacy, mathematics, mnemonic skills, and approaches to problem solving and reasoning (Laboratory of Comparative Human Cognition, 1983; Vygotsky, 1978; Wertsch, 1979). In this view, thinking involves learning to use symbolic and material cultural tools in ways that are specific to their use. This was exemplified by work demonstrating that experience with literacy promoted particular skills in its use, rather than promoting general cognitive advances (Scribner & Cole, 1981).

Vygotsky argued that children learn to use the tools for thinking provided by culture through their interactions with more-skilled partners in the zone of proximal development. Through engaging with others in complex thinking that makes use of cultural tools of thought, children become able to carry out such thinking independently, transforming the cultural tools of thought to their own purposes. Interactions in the zone of proximal development allow children to participate in activities that would be impossible

[1] This approach is referred to interchangeably as the sociocultural, sociohistorical, or cultural-historical approach. Active scholarly work continues to examine and extend the early twentieth-century insights of Vygotsky, Luria, Leont'ev, and other Soviet scholars such as Bakhtin and Ilyenkov. See especially Bakhurst, 1995; Cole, 1995, 1996; Kozulin, 1990; van der Veer & Valsiner, 1991; Wertsch, 1991, 1998.

for them alone, using cultural tools that themselves must be adapted to the specific activity at hand.

Cultural tools thus are both inherited and transformed by successive generations. Culture is not static; it is formed from the efforts of people working together, using and adapting material and symbolic tools provided by predecessors and in the process creating new ones.

Development over the life span is inherently involved with historical developments of both the species and cultural communities, developments that occur in everyday moment-by-moment learning opportunities. Development occurs in different time frames—at the pace of species change, community/historical change, individual lifetimes, and individual learning moments (Scribner, 1985; Wertsch, 1985). These four developmental levels, at different grains of analysis, provide a helpful way of thinking about the mutually constituting nature of cultural and biological processes and the changing nature of culture, discussed in more depth in the next chapter.

Scholars are working on a coherent family of sociocultural-historical research programs and theories inspired by Vygotskian cultural-historical theory, along with related ideas emerging from several other theoretical traditions (see Goodnow, 1993; Rogoff & Chavajay, 1995). The theory of John Dewey (1916) also complements Vygotskian ideas and has helped a number of sociocultural scholars to further develop these ideas. In addition, work on communication in everyday lives in different communities has contributed important concepts for thinking about individual and cultural aspects of development (Erickson & Mohatt, 1982; Goodwin, 1990; Heath, 1983, 1989a, 1991; Mehan, 1979; Miller, 1982; Ochs, 1988, 1996; Rogoff et al., 1993; Schieffelin, 1991; Watson-Gegeo & Gegeo, 1986b).

The related proposals for sociocultural theory represent a general agreement that individual development constitutes and is constituted by social and cultural-historical activities and practices. In the emerging sociocultural perspective, culture is not an entity that influences individuals. Instead, people contribute to the creation of cultural processes and cultural processes contribute to the creation of people. Thus, individual and cultural processes are mutually constituting rather than defined separately from each other.[2]

[2] Related though heterogeneous sociocultural proposals include the work of Bruner, 1990; Cole, 1990, 1996; Engeström, 1990; Goodnow, 1990; Heath, 1983; Hutchins, 1991; John-Steiner, 1985; Laboratory of Comparative Human Cognition, 1983; Lave & Wenger, 1991; Miller & Goodnow, 1995; Ochs, 1988, 1996; Rogoff, 1990, 1998; Schieffelin, 1991; Scribner, 1985, 1997; Serpell, 1993; Shweder, 1991; Shweder, Goodnow, Hatano, LeVine, Markus, & Miller, 1998; Valsiner, 1987, 1994, 2000; Wenger, 1999; Wertsch, 1991. (See also the journals *Mind, Culture, and Activity* and *Culture & Psychology*.) Although my version of the sociocultural perspective has a great deal in common with other versions, there are also important differences that are beyond the scope of this overview.

Development as Transformation of Participation in Sociocultural Activity

In my own work, I emphasize that human development is a process of *people's changing participation in sociocultural activities of their communities*. People contribute to the processes involved in sociocultural activities at the same time that they inherit practices invented by others (Rogoff, 1990, 1998).

Rather than individual development being influenced by (and influencing) culture, from my perspective, people develop as they participate in and contribute to cultural activities that themselves develop with the involvement of people in successive generations. People of each generation, as they engage in sociocultural endeavors with other people, make use of and extend cultural tools and practices inherited from previous generations. As people develop through their shared use of cultural tools and practices, they simultaneously contribute to the transformation of cultural tools, practices, and institutions.

To clarify these ideas, I have been developing a series of images that aim to move beyond boxes-and-arrows and nested-circles ways of portraying cultural influences. In Figure 2.3a–g, I offer images of a sociocultural "transformation of participation perspective" in which personal, interpersonal, and cultural aspects of human activity are conceived as different analytic views of ongoing, mutually constituted processes.

In the next chapter I discuss in more depth what I mean by cultural communities. For examining the images in Figure 2.3, it may be sufficient to note that in my view, cultural processes are not the same as membership in national or ethnic groups, and that individuals are often participants in more than one community's cultural practices, traditions, and institutions.

FIGURE 2.3A

This image portrays the object of study that has been traditional in developmental psychology: the *solitary individual*. Information about relations with other people and the purpose and setting of the activity is removed. When I ask people to guess what this child is doing, their speculations are hesitant and vague: "Thinking?" "Being punished?" "Reading?"
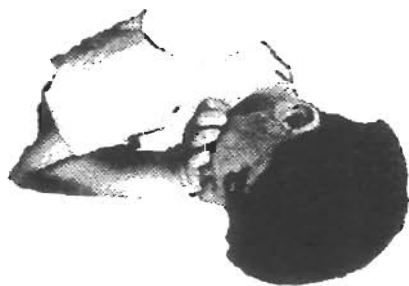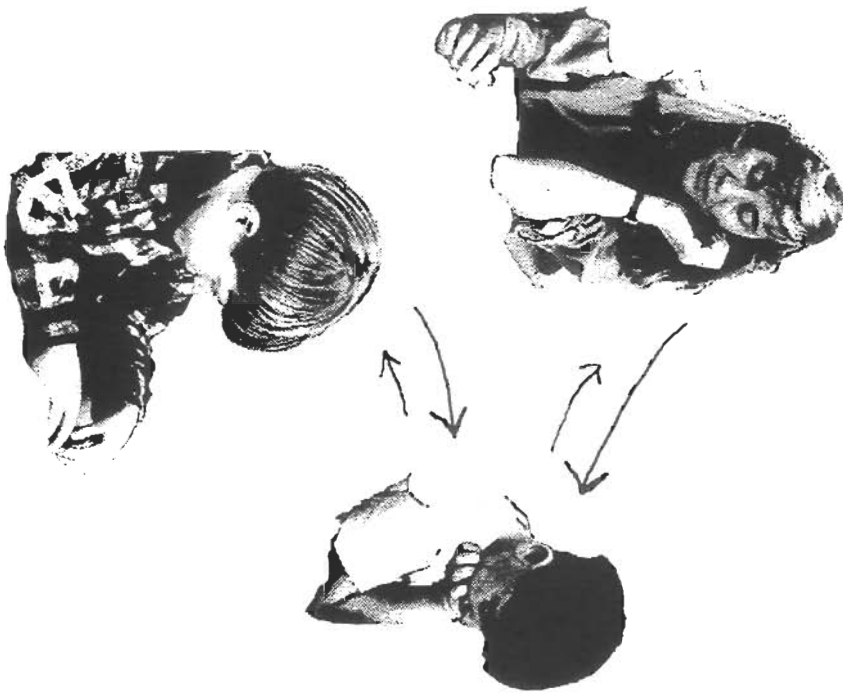
FIGURE 2.1B

Of course, the roles of other people—parents, peers, teachers, and so on—are recognized as relevant. This image portrays how social relations have often been investigated.—by studying "the child" apart from other people, who are studied separately even when they are engaging in the same event. Then the "*social influences*" are examined through correlating the characteristics or actions of the separate entities.[3] (Sometimes, analyses include bidirectional arrows to try to include an effect of the active child on the other people.) When I ask people to make further guesses about what the child is doing, given information about "social influences," their hypotheses are not much more specific than for the solitary individual in Figure 2.3a.

FIGURE 2.3C

This figure, like the two previous, is based on the boxes-with-arrows diagrams of the relation of culture and human development. When "*cultural influences*" are added (represented by the book and the cupboard), the child remains separate from them, "subject" to the effects of cultural characteristics. The individual and the rest are taken apart from each other, analyzed without regard for what they are doing together in sociocultural activities. With this portrayal of "cultural influences" information, people's guesses about what this child is doing are still not very specific, though some become more certain that the child is reading.
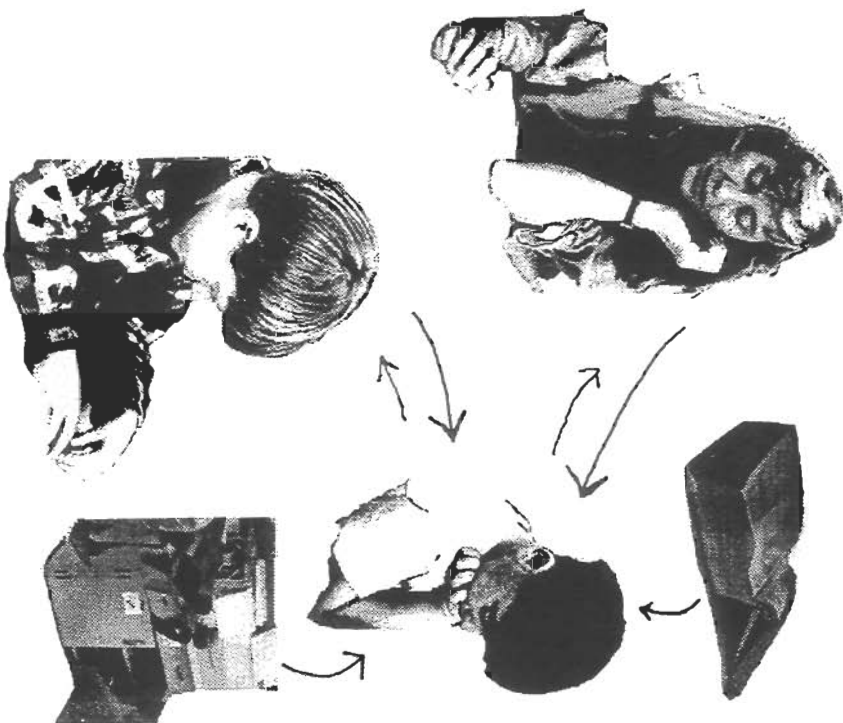
Vygotskian scholars complain that frequently Vygotsky's idea of the zone of proximal development is reduced to this sort of analysis of social influences, overlooking his emphasis on cultural processes.

FIGURE 2.3D

This image focuses on the same child from the *transformation-of-participation perspective*. The child is foregrounded, with information about him as an *individual as the focus of analysis*. At the same time, interpersonal and cultural-institutional information is available in the background. A general sense of interpersonal and cultural-institutional information is necessary to understand what this child is doing, although it does not need to be attended to in the same detail as the child's efforts. When I show people this image, their guesses about what the child is doing become much more specific: "Playing a game . . . Oh, it's Scrabble . . . He's thinking about his next turn . . . It's in a classroom . . ."
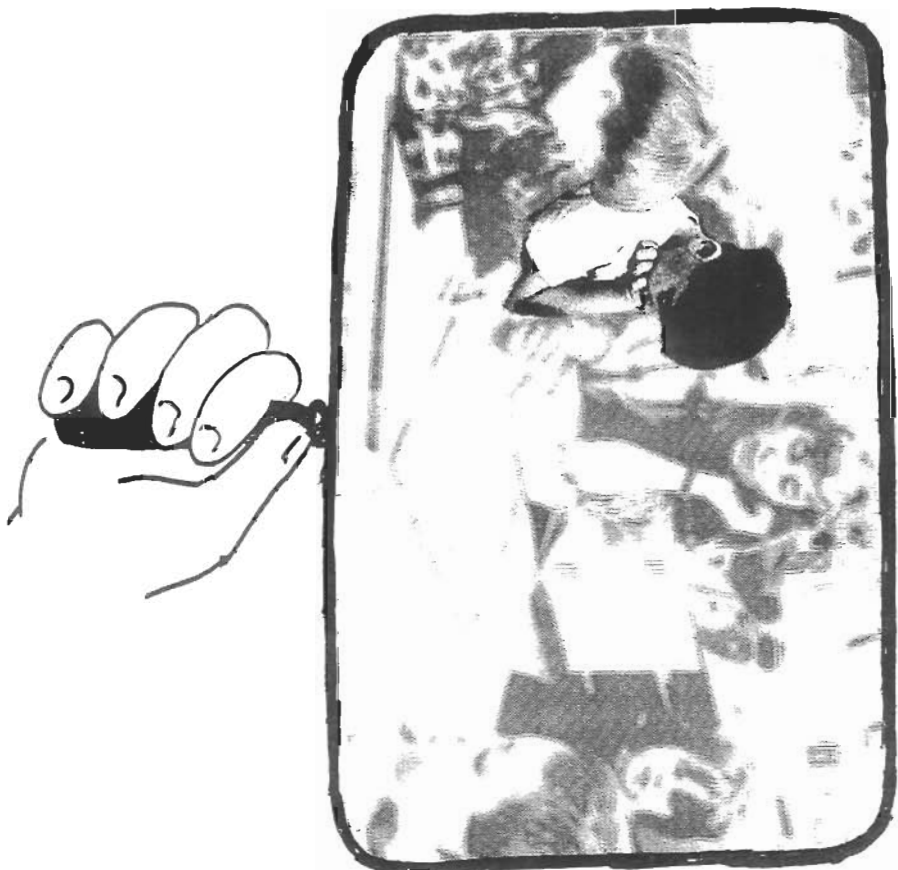
FIGURE 2.3E

If, instead of wanting to study the development of that particular child, we were interested in the relationships among that child and the people beside him, we could focus on what they are doing together. This would involve an *interpersonal focus of analysis*. We would be interested in knowing that the three people are playing Scrabble as a spelling activity organized by the adult; the adult is a parent volunteer helping this child check a word in the dictionary under her elbow while his classmate works on a word for his own next turn; and they are engaging in a friendly form of competition, helping each other as they play.

The fact that this is in a classroom setting matters, but we would not be analyzing in detail how such an activity fits with the culture of this school or this community (for that, see figure 2.3f). A general sense of individual and cultural information is important as background, to understand what the people are doing.

Together, the interpersonal, personal, and cultural-institutional aspects of the event constitute the activity. No aspect exists or can be studied in isolation from the others. An observer's relative focus on one or the other aspect can be changed, but they do not exist apart from each other. Analysis of interpersonal arrangements could not occur without background understanding of community processes (such as the historical and cultural roles and changing practices of schools and families). At the same time, analysis requires some attention to personal processes (such as efforts to learn through observation and participation in ongoing activities).

The hand holding the analytic lens is also important, indicating that we, as observers or researchers, construct the focus of analysis. *The focus of analysis stems from what we as observers choose to examine*—in the case of Figure 2.3e, the relationships among these three people. It is a particular view of the event and focuses on some information as more important to us, keeping other information less distinct, as background. It is usually necessary to foreground some aspects of phenomena and background others simply because no one can study everything at once. However, the distinctions between what is in the foreground and what is in the background lie in our analysis and are not assumed to be separate entities in reality. (In contrast, the boxes-and-arrows and nested-circles approaches often treat the diagrammed entities as existing separately in reality.)
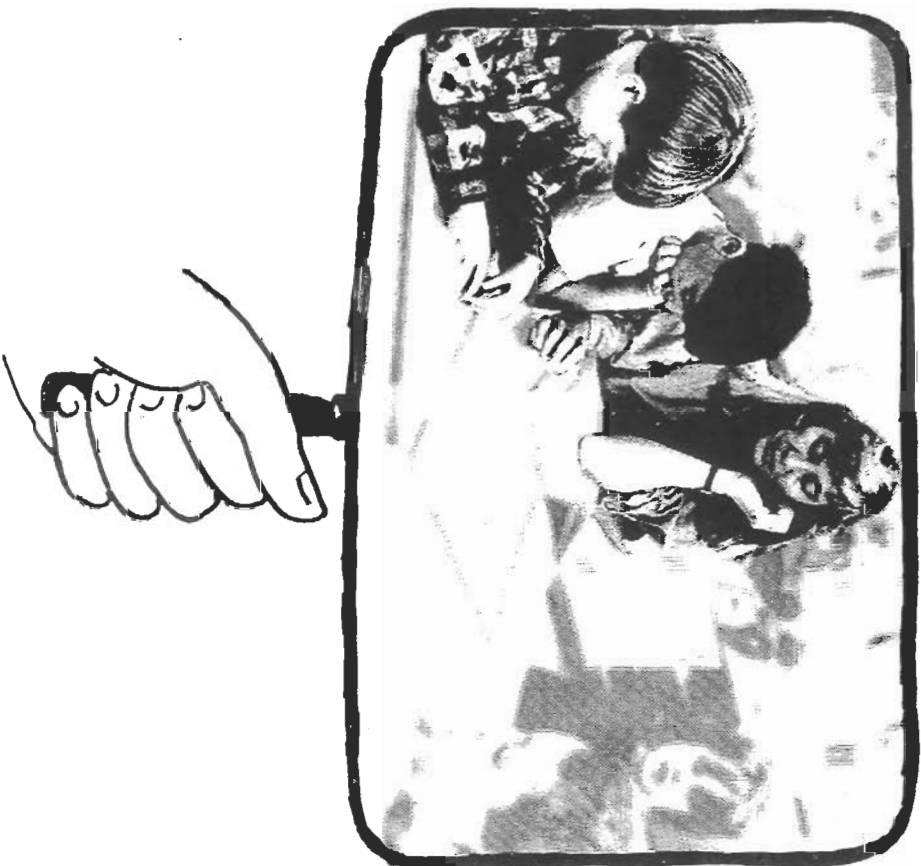
FIGURE 2.3F

Some studies (or some lines of investigation, or some disciplines) need a *cultural-institutional focus of analysis*, backgrounding the details regarding the particular people and their relations with each other. In this scene, we might be interested in studying such cultural-institutional processes as how this particular school has developed practices in which parent volunteers are routinely in the classroom, helping children learn by devising "fun educational" activities; how the community of this school revises its practices as new generations of families join in; and how the practices in this school connect with the culture and history of schooling in other innovative schools as well as in traditional schools and with national and educational policies (such an analysis is available in Rogoff, Goodman Turkanis, & Bartlett, 2001; Rogoff, 1994).

With the focus of Figure 2.3f, we see a glimpse of a moving picture involving the history of the activities and the transformations toward the future in which people and their communities engage.
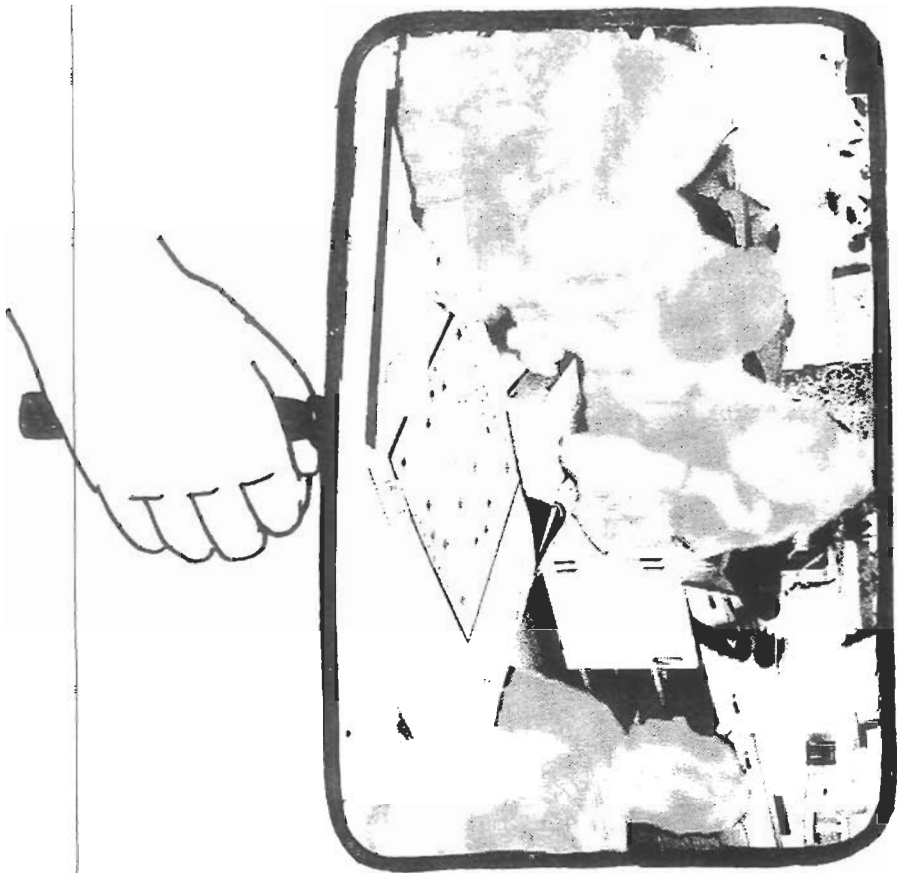
FIGURE 2.3G

This figure portrays a problem that sometimes occurs if researchers recognize the importance of culture but leave out the equally important role of *the people who constitute cultural activities*. This figure is as difficult to understand as Figure 2.3a. It does not make sense to try to study cultural processes without considering the contributions of the people involved, keeping them in the background of a focus on cultural, institutional community processes.

I believe that this approach will facilitate progress in coordinating information across studies and across disciplines to develop more complete understanding of the phenomena that interest us. Keeping our focus of analysis informed by background information makes it easier to align the understanding gained across studies or disciplines that employ different focuses. Instead of being competing ways to examine phenomena, each focus informs the others.

Although I concentrate in this book on questions of personal, interpersonal, and cultural processes, biological aspects of the activity shown in Figure 2.3d–f could be the focus of analysis in other related research. For example, studies could focus on neuronal, hormonal, or genetic processes, with personal, interpersonal, and cultural information in the background. In this way, biological, sociocultural, and individual aspects of human functioning can all be seen as contributing to the overall process, rather than as rivals, trying to cut each other out of the picture. (In the next chapter, I discuss the relation of biological and cultural processes.)

Key to my approach is an emphasis on the *processes* involved in human activity. The static nature of Figure 2.3d–f does not capture this well, however; the medium of the printed page constrains the representation of dynamic processes. If you can imagine the image as a glance at a moment in a moving picture, it would do more justice to the idea of the dynamic and mutually constituting nature of individual, interpersonal, and cultural-institutional processes.

The next chapter examines concepts for thinking about cultural processes. The ways that scholars and policymakers have often thought of culture are tied to the separation of individual and culture in the box-and-arrow or nesting-circles diagrams. Culture has been treated as an outside "influence" on individual characteristics, often thought of as providing a flavor to otherwise vanilla individuals. As I explain in the next chapter, from my transformation-of-participation view, all people participate in continually changing cultural communities. Individuals and generations shape practices, traditions, and institutions at the same time that they build on what they inherit in their moment in history.

3

Individuals, Generations, and Dynamic Cultural Communities

Each of us lives out our species nature only in a specific local manifestation . . . our cultural and historical peculiarity is an essential part of that nature.
—Shore, 1988, p. 19

Scholars and census takers alike struggle with how to think about the relation of individuals and cultural communities. This chapter focuses on how we can conceive of cultural processes and communities if we consider development to be a process of changing participation in dynamic cultural communities.

Two major challenges in trying to characterize people's cultural heritage are the focus of this chapter. The first challenge is moving beyond a pair of long-standing related dichotomies: cultural versus biological heritage and similarities versus differences. The second challenge is how to think of cultural processes as dynamic properties of overlapping human communities rather than treating culture as a static social address carried by individuals.

Humans Are Biologically Cultural

The well-known nature/nurture debate places culture and biology in opposition. Proponents argue that if something is cultural, it is not biological, and if something is biological, it is not cultural. In particular, psychologists have spent a long time trying to figure out what percentage of a person's characteristics is biological and what percentage is cultural or environmental. This artificial separation treats biology and culture as independent entities rather than viewing humans as biologically cultural.