

This Text is from *New Directions for Child Development: The Cultural Practices as Contexts for Development*

Jacqueline J. Goodnow, Peggy J. Miller, Frank Kessel

Number 67, Spring 1995

The Supra-Individual Envelope of Development: Activity and Practice, Situation and Context

Michael Cole

The past two decades have seen many changes in approaches to cognitive development, but none more profound than the current popularity of the notion that some unit of analysis larger than, but inclusive of, the individual is required if we are to attain a more adequate conception of the processes at work. The crucial questions then become, What is this unit of analysis? How is it to be described? How, if we abandon the individual as the unit of psychological analysis, are we to go about collecting data with which to evaluate our theories and guide our practice?

The essays in this volume all contribute to answering these questions. They are united by the idea that "cultural practices" offer the needed unit of analysis. However, when one delves into the individual chapters, it quickly becomes apparent that *practice* is an extremely polysemous concept; it seems to inhabit a common semantic space with such concepts as *activity*, *context*, *situation*, and *event*.

Barbara Rogoff, Jacqueline Baker-Sennett, Pilar Lacasa, and Denise Goldsmith, for example, talk in their chapter about a unit of analysis that appears to be an amalgam of the concepts *practice*, *activity*, and *event*: "We make use of 'activity' or 'event' as the unit of analysis, with active and dynamic contributions from individuals, their social partners, and historical traditions and materials and their transformations." From later citations in their chapter (to Dewey and Pepper, for example), we can see links between their formulations and American pragmatist thinking relevant to cultural practices theory.

Barbara Miller also conceives of cultural practices as closely related to

activity. She writes that "'practices' are taken here to be people's routine activities, which are inextricably linked both to the [societal] structures within which actors operate and to the meaning that actors give to their activities. In themselves, practices contain both structure and meaning in some sense, and they are the basis for transformation and change in structure and meaning. Practices are the everyday pivot between structure and the individual." Later in her chapter, she suggests listening to music as an example of a secular practice and meditation as a religious practice. Both listening to music and meditation fit most everyday definitions of an activity.

Terezinha Nunes also treats *practice* and *activity* almost as if they were synonyms. She writes that "symbolic tools shape intellectual activity in much the same way as physical tools shape work practices. . . . In other words, individuals who share the same reasoning principles about arithmetic may structure their problem-solving activity differently as a consequence of using distinct systems of representation." Later in her chapter, while discussing cultural practices and personal identity, she asserts that "social types are often identified as a consequence of their participation in some cultural activity."

Richard Shweder, Lene Arnett Jensen, and William Goldstein do not offer a definition of the term *practice* in their chapter, but in specifying what they take to be a cultural account of mind, they emphasize that "one must establish a correspondence between behavior patterns and the preferences, values, moral goods, and causal beliefs exhibited in those behaviors." Later, they comment that it is in the matrix of possibilities provided by cultural practices that the behaviors become symbolic actions rather than "mere behavior."

In spite of the diversity in their vocabularies and objects of analysis, we can discern convergence of the authors appearing in this volume on a unit of psychological analysis that includes not only the individual but also a supra-individual sociocultural entity that is the effective medium of uniquely human forms of being in the world. The big challenge is to attain greater precision in our ability to communicate about this unit of analysis and the forms of interaction by which individual psychological functioning and its socioculturally structured environment are intertwined.

To contribute to this effort, I will explore different attempts to specify the supra-individual unit of analysis in terms of which culture's contributions to human development are to be understood. I need to state at the outset that at the end of this inquiry I will not be able to differentiate and order the various ways of speaking about this supra-individual unit of analysis with logical precision. My more modest hope is that this historical exercise will make clearer the alternative vocabularies now in use for talking about culture and development and thereby promote dialogue on the developmental mechanisms at work.

Early Candidates for the Unit of Analysis: Situations and Contexts

My own attempts to talk about relations of culture and behavior display the same sliding back and forth between apparently related terms that is charac-

teristic of the essays in this volume. As with Nunes, it was data generated by the application of standardized testing procedures among people living in sociocultural circumstances very different from my own that were the initial impetus for this effort. In attempting to understand why Kpelle (Liberian) rice farmers sometimes displayed a fine-tuned ability to use quantitative measurements and sometimes did not, John Gay and I (1967) appealed to the special role of measurement in particular economic activities. Later, in attempting to understand the checkered pattern of cultural differences in performance on a variety of specially contrived cognitive tasks, we proposed that "cultural differences in cognition reside more in the situations to which particular cognitive processes are applied than in the existence of a process in one cultural group and its absence in another" (Cole, Gay, Glick, and Sharp, 1971, p. 233).

Whatever the other virtues and shortcomings in such conclusions, they suffered from a key ambiguity: nowhere did we offer a definition of *activity* or *situation*, both of which we were using in a commonsense fashion. Similar problems beset our use of the term *context* (Laboratory of Comparative Human Cognition, 1983).

Had we been sufficiently educated in the history of our discipline, our efforts could have been considerably enhanced by consulting the discussion of situation and context to be found in John Dewey's *Logic* (1938). The first part of Dewey's discussion appears to provide support for our conclusions. He wrote that "what is designated by the word 'situation' is not a single object or event or set of objects and events. For we never experience nor form judgments about objects and events in isolation, but only in connection with a contextual whole. This latter is what is called a 'situation'" (p. 66).

Dewey went on to comment that psychologists are likely to treat situations in a reductive fashion: "By the very nature of the case the psychological treatment [of experience] takes a singular object or event for the subject-matter of its analysis" (p. 67). But, he wrote, "In actual experience, there is never any such isolated singular object or event; an object or event is always a special part, phase, or aspect, of an environing experienced world—a situation" (p. 67).

Dewey believed that isolating what is cognized from the course of life behavior is often fatally obstructive to understanding cognition. It is such isolation (typical of experimental procedures in psychological studies of cognition), he argued, that gives rise to the illusion that our knowledge of any object, be it "an orange, a rock, piece of gold, or whatever," is knowledge of the object in isolation from the situation in which it is encountered. When our objects are standardized cognitive tasks, Dewey's point translates into the conclusion that cognitive tasks cannot be specified independent of the context that helps to constitute them; tasks/objects/texts and contexts ("with-texts") arise together as part of a single process.

In short, we discover that there are two ways in which social scientists have thought about context. One treats context more or less as the "ground" upon which the "figure" of the object appears and tends strongly to treat context as

prior to (and causal with respect to) the object/task. The other treats context and task/object as mutually constituted, such that causal priority cannot be assigned; figure and ground shift positions in the manner of a visual illusion. Both of these views have their champions and their uses.

Context as That Which Surrounds. When we retreat to Webster's dictionary to seek some clarity with respect to vocabulary, we find *context* defined as "the whole situation, background, or environment relevant to a particular event" and *environment* defined as "something that surrounds."

The notion of context as "that which surrounds" is often depicted as a set of concentric circles representing different "levels of context" that simultaneously constitute, and are constituted by, the levels above and below them. The psychologist's focus is ordinarily on the unit "in the middle," which may be referred to as an event or activity engaged in by individuals. The psychologist seeks to understand how this event is shaped by, and gives shape to, the broader levels of context.

This image is probably best known in connection with Bronfenbrenner's (1979) monograph on the ecology of human development. In applying this approach, Cole, Griffin, and Laboratory of Human Cognition (1987) took as the "unit in the middle" a teacher-pupil exchange that was part of a lesson that was part of a school day, and so on, and they discussed how its qualities were shaped by the organization of the classroom, the school as a whole, and the school's links to its community.

The notion of context as "that which surrounds," if treated in the proper fashion, provides one conceptual tool to grapple with the problem of how events at one "level of context" are shaped by events analyzed at neighboring levels. However, it also carries with it the danger that temporal and causal priority will be ascribed inappropriately to particular levels.

The study of language is an important domain in which the promise and problems of the idea of "layers of context" have been usefully explored (Bateson, 1972; Jakobson and Halle, 1956). A fundamental property of language is that its levels of organization are mutually constituted; a phoneme exists as such only in combination with other phonemes that make up a word. The word is the context of the phoneme. But the word exists as such—"has meaning"—only in the larger context of the utterance, which again "has meaning" only in relationship to a larger unit of discourse. As Bateson points out, "This hierarchy of contexts within contexts is universal for the communicational . . . aspect of phenomena and drives the scientist always to seek explanation in the ever larger units" (1972, p. 402).

Note that in this description there is no simple, temporal, ordering. "That which surrounds" occurs before, after, and simultaneously with the "act/event" in question. We cannot say sentences before we say words or words before synthesizing phonemes in an appropriate way; rather, there is a complex temporal interdependence among levels of context that motivates the notion that levels of context constitute each other.

To take our example of the teacher-child exchange, it is easy to see such

events as "caused" by higher levels of context: teachers give lessons, which are events in classrooms, which are events in schools, and each lesson is structured according to conventions of the school a teacher works in, which are dictated by the board of education, and so on.

The difficulty with this top-down way of thinking about context is that it fails to capture the dynamic relationships between presumed levels, treating the context very much as if it were a stimulus or a cause. While more inclusive levels of context may constrain lower levels, they do not *cause* them in a unilinear fashion. For the event "a lesson" to occur, the participants must actively engage in a consensual process of "lesson making." Teachers often vary considerably in the way they interpret the conventions of the school, and school communities participate in the selection of the board of education. Without forgetting for a moment that the power relations among participants at different levels of context are often unequal, we must also remember that context creation is an active, two-sided process (see Chaiklin and Lave, 1993, for many relevant examples).

Context as That Which Weaves Together. When one delves into the history of the concept of context, one finds that it is derived from the Latin word *contexere*, "to weave together." Moreover, there is an intimate connection between context, interpreted as a process of weaving together, and the notion of an event. This connection is provided by Stephen Pepper in his analysis of contextualism as a worldview (what might currently be called a scientific paradigm).

Pepper (1942) suggests that the root metaphor underlying a contextualist worldview is the "historic event." By this, the contextualist does not mean primarily a past event—one that is, so to speak, dead and has to be exhumed. He means the event alive in its present. What we ordinarily mean by *history*, he says, "is an attempt to re-present events, to make them in some way alive again. . . . We may call [the event] an 'act,' if we like, and if we take care of our use of the term. But it is not an act conceived as alone or cut off that we mean; it is an act in and with its setting, an act in its context" (p. 232).

An "act in its context" according to Pepper and an object in its context/situation in Dewey's framework share the same basic characteristic: objects and contexts arise together as part of a single bio-social-cultural process of development. Pepper also writes about context in a way that invites us to think about it in terms of the alternative, "weaving together" conception. Events, he says, are described jointly by their quality and texture. But events are not to be broken down separately by quality and texture; rather, the event is what unites quality and texture, a whole greater than the sum of its parts. The holistic property is the quality; the parts or components make up the texture.

Although I am not aware of his using the metaphor of context as weaving, Gregory Bateson (1972) highlights the way in which mind is constituted through human activity involving cycles of transformations between "inside" and "outside" that are very similar to the idea of a two-sided relationship between strands and context in Pepper's writing. "Obviously," Bateson writes,

"there are lots of message pathways outside the skin, and these and the messages which they carry must be included as a part of the mental system whenever they are relevant" (p. 458). He then proposes the following thought experiment: "Suppose I am a blind man, and I use a stick. I go tap, tap, tap. Where do I start? Is my mental system bounded at the hand of the stick? Is it bounded by my skin? Does it start halfway up the stick? Does it start at the tip of the stick?" (p. 459).

Bateson goes on to argue that such questions are nonsensical unless one is committed to including in one's analysis not only the man and his stick but his purposes and the environment in which he finds himself. When the man sits down to eat his lunch, the stick's relation to mind has totally changed, and it is forks and knives that become relevant. In short, because what we call *mind* works through artifacts, it cannot be unconditionally bounded by the head or even by the body but must be seen as distributed in the artifacts that are woven together and that weave together individual human actions in concert with and as a part of the permeable, changing events of life. The relevant order of context for analysis will depend crucially on the tools through which one interacts with the world, and these in turn depend upon one's goals and other constraints on action. According to this view of context, the combination of goals, tools, and setting (including other people and what Lave, 1988, terms "arena") constitute simultaneously the context of behavior and ways in which cognition can be said to be related to that context.

I will return to questions about situation and context presently, but first I need to bring the other central concepts in this discussion into focus.

An Alternative Duo: Activity and Practice

While the use of *situation* and *context* continues to be important in thinking about supra-individual units of analysis linking humans and their socio-cultural worlds, in recent years this impulse has increasingly been expressed in terms of concepts such as *activity* and *practice*, which play a prominent role in the these chapters.

Contemporary ideas about the relation between cognition and practice can be traced at least back to the Greeks (Bernstein, 1971; Hickman, 1990). Aristotle distinguished three kinds of knowing: *theoria*—a form of contemplation; *praxis*—a form of practical activity (including political activity, business, and athletic performances); and *poiesis* (or *techné*)—a form of production such as that engaged in by craftsmen. These three ways of knowing were valued differently. *Theoria* was seen as a superior form of knowledge from which the two remaining forms of knowledge should arise, and *praxis* was seen as superior to *techné*.

When we see reflections of these distinctions among contemporary scholars for whom practice is an important organizing concept, it is often in the service of revaluing and reordering Aristotle's categories; in this tradition, *praxis* becomes not only the essential testbed of theory but the actual medium from

which theory precipitates as a special moment of inquiry. The key figure providing a theoretical justification of this revaluation was Karl Marx, from whom the major contemporary practice theories are derived, through various historical intermediaries.

It is also probably fair to say that Marx is to blame for the confusion about how practice relates to activity in current academic discourse. The close pairing of these two terms is inscribed in the first of his "Theses on Feuerbach" ([1845] 1967), where Marx wrote that "the chief defect of all materialism . . . is that the thing, reality, sensuousness, is conceived only in the form of the object or of contemplation, but not as sensuous human activity, practice, not subjectively. Hence in opposition to materialism the active side was developed by idealism—but only abstractly since idealism naturally does not know actual, sensuous activity as such" (quoted in Bernstein, 1971, p. 11).

From this passage, we are led to understand that Marx meant to retrieve the active individual from idealism and to rearrange the ontological separation among humans and artifacts as a way of superseding the dichotomy separating the material and the ideal. His formulation of the interpenetration of activity and practice and materiality/ideality is based on the assumption that "the object or product produced is not something 'merely' external to and indifferent to the nature of the producer. It is his activity in an objectified or congealed form" (Bernstein, 1971, p. 44). This activity "has the power to endow the material world with a new class of properties that, though they owe their origin to us, acquire an enduring presence in objective reality, coming to exist independently of human individuals" (Bakhurst, 1993, pp. 179–180).

Activity/practice emerges in this account as medium, outcome, and precondition for human thinking. It is in the territory of activity/practice that ideality emerges as a part of the dialect of development.

Twentieth-Century Theorists of Activity and Practice. I am incapable of mapping out all the major competing ideas about practice and activity in the twentieth century. Successful efforts to do so would have to encompass virtually all of modern social theory as expressed in many different national traditions and many social science and humanities disciplines. My more modest goal is to sketch out the genealogies that I judge to be most relevant to psychologists, based upon the references cited by contributors to this volume. They are relevant to different degrees and in different ways to the chapters in this volume, as I shall try to make clear.

Differing Traditions of Activity and Practice. One of the important "intermediaries" between Marx and contemporary practice approaches in the study of development is American pragmatism, present in this volume in the person of John Dewey. Dewey is, of course, the American philosopher who most emphasized the intimate relationship between practice and theory as the core of experience. Dewey also articulated a view of human activity that, as with Marx, emphasized the dependence of its quality on the contributions of prior generations and the nonidentity of human bodies and human minds:

"Experience does not go on simply inside a person. . . . In a word, we live from birth to death in a world of persons and things which is in large measure what it is because of what has been done and transmitted from previous human activities. When this fact is ignored, experience is treated as if it were something which goes on exclusively inside an individual's body and mind. It ought not to be necessary to say that experience does not occur in a vacuum. There are sources outside an individual which give rise to experience" (Dewey, 1938, p. 39).

Dewey is also important to contemporary studies of development in terms of cultural practices because he provides a way of understanding the intimate linkages between cognition, practice, and participation in a community, a theme that has recently been brought to prominence through the writings of Jean Lave and her colleagues (Lave, 1988; Lave and Wenger, 1991). "Knowledge," Dewey wrote in a passage quoted in the chapter by Rogoff and her colleagues, "is a mode of participation, valuable in the degree in which it is effective. It cannot be the idle view of an unconcerned spectator" (Dewey, 1916, p. 393).

I find Dewey a constant source of inspiration when thinking about mind and activity as interconnected processes of development. But Dewey's descriptions of the systemic qualities to be sought when organizing activity for particular purposes (to reform the process of education, for example) are relatively abstract. What about the particular morphologies of particular practices? How does one organize the educational process around authentic experience in late-industrial capitalism?

A second line of influence on modern practice theorists comes via the Russian cultural-historical school of psychology, which started life as a way to formulate a psychology based upon Marxist ideas (Vygotsky, 1978; Van der Veer and Valsiner, 1991). Russian psychologists do not use the term *practice* when referring to the unit of psychological analysis; they speak instead of *activity*, and their tradition has come to be referred to as "activity theory" (Engeström, 1993; Leontiev, 1981; Wertsch, 1981).

Activity theory is anything but a monolithic enterprise. Within Russia there are at least two schools of thought about how best to formulate Marx's ideas in psychological terms (Brushlinskii, 1968; Zinchenko, 1985). In addition, there is a long German tradition of activity theory research (Raeithel, 1994), a Scandinavian/Nordic tradition (Engelsted, Hedegaard, Karpatscholf, and Mortenson, 1993; Engeström, 1987), and now, perhaps, an American tradition (Goodwin and Goodwin, in press; Nardi, 1994; Scribner, 1984). A good statement of the general tenets of this approach is provided by Engeström, who writes that an activity system "integrates the subject, the object, and the instruments (material tools as well as signs and symbols) into a unified whole. An activity system incorporates both the object-oriented productive aspect and the person-oriented communicative aspect of human conduct. Production and communication are inseparable (Rossi-Landi, 1983). Actually, a human activity system always contains the subsystems of production, distribution, exchange, and consumption" (1987, p. 67).

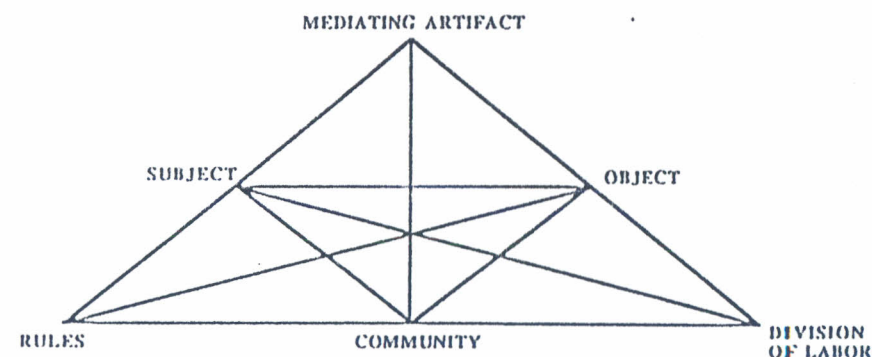
Engeström represents the complex set of relations that enter into an activity system in terms of the set of triangular relationships presented as Figure 6.1. At the top of the figure is the basic subject-mediator-object relationship familiar to developmental psychologists through the writings of Vygotsky and his colleagues. This is the level of mediated action through which the subject transforms the object to create outcomes. But action exists "as such" only in relation to the components at the bottom of the triangle. "Community" refers to those who share the same general object; "rules" refers to explicit norms and conventions that constrain actions within the activity system; "division of labor" refers to the division of object-oriented actions among members of the community. The various components of an activity system do not exist in isolation from each other; rather, they are constantly being constructed, renewed, and transformed as outcome and cause of human life.

Engeström echoes contemporary dissatisfaction with conceptions that treat contexts as "containers" of behavior, untouched in themselves by human actions, or as contained within interpersonal interaction. Jean Lave nicely summarizes the shortcomings of these two conceptions by declaring that "one has system without individual experience, the other experience without system" (Lave, 1988, p. 150).

Within the sort of activity theory characterization summarized in Figure 6.1, contexts are activity systems. The subsystem associated with the subject-mediator-object relationship exists as such only in relationship to the other elements of the system. This is a thoroughly relational view of context.

An important part of the activity theory approach is that it emphasizes that the process of development on the ontogenetic level is "co-constructed" with events at the level of activities. Moreover, just as the individual's history (ontogeny) is important to the analysis of change, so are the historically evolving changes in the bio-social-cultural forms called activities. One must seek to

Figure 6.1. Basic Structure of an Activity System According to Engeström



Note: At the apex of the triangle are the cultural artifacts mediating between subject and object. At the base of the triangle are the community, the division of labor, and the rules governing social life.

understand how human behavior contributes to changes in activity systems in addition to studying how particular systems of activity contribute to changes in individuals. It is this sort of concern that motivates Rogoff and her colleagues to include changes in technologies of calculation and communication as well as the active role that participants in earlier generations played in shaping the practices that young girls participate in today.

Nunes also uses concepts derived directly and indirectly from Russian cultural-historical psychologists in her exploration of experiential factors associated with arithmetic performance of Brazilian children from different social classes and occupational groups. She presents us with what appears to be an anomalous result. Virtually any theory linking culture and cognitive development can live with that brand of practice theory which rests on the proposition that "practice makes perfect." According to this way of reasoning, Brazilian children with a lot of arithmetic experience ought to develop their arithmetic knowledge. But, asks Nunes, how does it come to pass that children who know a good deal of oral arithmetic fail to learn written arithmetic? The answer is not to be found in declaring that there are social class differences in arithmetic ability; rather, one has to look to the ways in which mathematics enters the lives of children, to the cultural practices/activity systems in which they participate, and to the way that those supra-individual levels of structuration interact to produce the anomalous result.

With her assertion that "practices are the everyday pivot between structure and the individual," Barbara Miller introduces Western European social theory into the discussion of cultural practices. Her specific reference is to the ideas of Anthony Giddens (1979). With respect to human development, Giddens is concerned to avoid accounts of socialization that assume that the subject is determined by either the environment or by its "inherent characteristics." The first view, he writes, "reduces subjectivity to the determined outcome of social forces, while the second assumes that the subjective is not open to any kind of social analysis" (p. 120).

According to Giddens, practices (rather than roles, for example) are the basic constituents of the social system. They are also a unit of analysis that overcomes such dualisms as "individual versus social," which re-create one-sided accounts of development. The resolution of such dualisms, he claims (following Marx), is to be found at the level of practices: "In place of each of these dualisms, as a single conceptual move, the theory of structuration substitutes the central notion of duality of structure. By the duality of structure, I mean the essential recursiveness of social life, as constituted in social practices: structure is both medium and outcome of the reproduction of practices, and 'exists' in the generating moments of this constitution" (1979, p. 5).

Following Giddens, Miller looks to grooming practices to discover how the contested claims of traditional Indian Hindu society and contemporary middle-class U.S. society are resolved by adolescents from Indian families. "Choice of hair style" is a good example of something that is both the outcome

of the reproduction of a practice (in that it results from decisions among a choice of alternatives that pre-exist in the practice) and the medium for the reproduction of the practice (in that it is from the varied current expressions of the practice that "next choices" are drawn).

Another important European thinker contributing to contemporary ideas of practice is anthropologist-sociologist Pierre Bourdieu (1977), who also seeks to block simplified notions of context as cause and whose work is also aimed at overcoming dualistic theories of cognition and social life. Bourdieu warns against theories that "treat practice as a mechanical reaction, directly determined by the antecedent conditions." He simultaneously warns against "bestowing free will and agency on practices" (p. 73).

Central to Bourdieu's strategy for balancing these two unacceptable extremes is the notion of *habitus*: "a system of lasting, transposable dispositions which, integrating past experiences, functions at every moment as a matrix of perceptions, appreciations, and actions and makes possible the achievement of infinitely diversified tasks" (pp. 82-83). In Bourdieu's approach, *habitus* is the product of the material conditions of existence and the set of principles for generating and structuring practices. *Habitus*, as its name implies, is assumed to take shape as an implicit aspect of habitual life experiences. It constitutes the (usually) unexamined background set of assumptions about the world. It is, Bourdieu remarks, "history made nature" (p. 78). "The *habitus* is the universalizing mediation which causes an individual agent's practices, without either explicit reason or signifying intent, to be none the less 'sensible' and 'reasonable'" (p. 79).

It seems to me that the data of Richard Shweder and his colleagues on the relationship between culture and sleeping practices, although Shweder does not make the connection, bears a strong resemblance to Bourdieu's ideas about *habitus* and practice as well as Giddens's ideas about the duality of structure. For Shweder and his colleagues, "A culture is a way of life lit up by a series of morally enforceable conceptual schemes that are expressed and instantiated in practice." "Way of life" appears to be a reasonable proxy for *habitus*, while "expressing, instantiating, and enforcing" seem to capture the process of structuration.

Bourdieu's insistence that practices not be seen as a mechanical response to antecedent conditions (either material conditions or *habitus*) is echoed in Shweder's point that in Orissa there is no "locked in," fixed pattern determining who sleeps next to whom at night, despite well-defined cultural values that are expressed and realized through sleeping practices.

Shweder and his colleagues assert that to give a cultural account of behavior "one must establish a correspondence between behavior patterns and the preferences, values, moral goods, and causal beliefs exhibited in those behaviors"—all of which are constituents of what Bourdieu refers to as *habitus*. The locus where the constituents of mind merge, for both Bourdieu and Shweder (and colleagues), is practices.

Congeries of Terms Reconsidered

I have by no means adequately surveyed the range of scholarly efforts to refocus psychologists on a view of cognition that places cultural mediation at its center—a view that focuses on some form of sociocultural structured/structuring entity that includes active human beings as its unit of analysis. Acknowledging this shortcoming, I want to concentrate my remaining comments on the possible entailments of differences in choices among such terms such as *situation*, *event*, *practice*, *activity*, and *context*, as well as what those terms have in common.

In her provocative discussion of cognition in practice, Jean Lave (1988) provides a succinct summary of several themes uniting scholars interested in practice theory:

An emphasis on the dialectical character of the fundamental relations constituting human experience. (In Lave's terms, human agency is "partially determined, partially determining" [p. 16].)

A focus on experience in the world that rejects the structure and dynamics of psychological test procedures as a universally appropriate template.

A shift in the boundaries of cognition and the environment such that, in Lave's phrasing, cognition "is stretched across mind, body, activity and setting" (p. 18)—a perspective sometimes referred to as "distributed cognition" (Hutchins, 1991; Norman, 1991; Salomon, 1993).

Although their vocabulary is somewhat different, I believe the same points of agreement can be attributed to Dewey in his discussions of situation and to those context theorists (such as Bateson) who hold firmly to the conviction that it is essential to see an "action as part of the ecological subsystem called context and not as the product or effect of what remains of the context after the piece which we want to explain has been cut out from it" (Bateson, 1972, p. 338).

At the same time, I have come away from this exercise worried about treating *activity*, *practice*, and *context* as if they were synonymous, especially in light of the fact that these terms often go undefined. They are not always synonymous, although they may well often coalesce in human experience. In some cases, practices appear to be parts of activity systems; for example, distinct literate practices can be seen as elements in a variety of activity systems (as part of a bar mitzvah, the weekly shopping, or a courtship). Activity systems can also be seen as elements in a practice (the term "practice of law" implies involvement in courtrooms, boardrooms, libraries, and private conferences, all of which are analyzable in activity theory terms).

There also appear to be some differences in theoretical and methodological approaches associated with adherence to one or another vocabulary preference. Those associated with activity theory, for example, appear to place a relatively heavy emphasis on the notion that practice is an essential theoretic-

cal moment in their inquiry (in comparison to those who adopt practice theory terms). In this, they are more similar to Dewey than to Giddens or Bourdieu. An orientation to activity theory also seems to place a relatively heavy emphasis on historicity and development.

I am uncertain about the reasons for, and significance of, these differences. One circumstance I can note is that practice theory has been developed largely in anthropology and sociology, which have a long and troubled relationship to historical explanations and notions of development. Such notions have too often been used to justify European political domination and exploitation of other parts of the world. This same legacy renders problematic the testing of theories in practice: What could it possibly mean for an anthropologist to test out her ideas about ritual practices in a society of which she is not a member? Yet societies do differ in multiple ways related to their histories; consequently, theoretically motivated descriptions of complex, interactively accomplished events are routinely vulnerable to alternative descriptions without the benefit of empirical criticism.

Similar questions can be, and have been, raised about activity theory. In some of its interpretations, it has adhered rather closely to notions of historical progress that come perilously close to asserting that primitives think like children. And despite its claims to unifying theory in practice, the number of convincing examples of research remains small.

The contributions to this volume illustrate the promise of a more powerful framework for understanding the development of thought in culture. Fulfilling that promise will require an increased commitment to interdisciplinary research among psychologists, anthropologists, and others. Such work is needed, I believe, because it is the most likely way to bring greater stability and precision to our ideas about the supra-individual unit of analysis toward which so many are gesturing.

References

- Bakhurst, D. *Consciousness and Revolution in Soviet Philosophy: From the Bolsheviks to Evald Ilyenkov*. New York: Cambridge University Press, 1993.
- Bateson, G. *Steps to an Ecology of Mind*. New York: Ballantine Books, 1972.
- Bernstein, R. J. *Praxis and Action: Contemporary Philosophies of Human Activity*. Philadelphia: University of Pennsylvania Press, 1971.
- Bourdieu, P. *Outline of a Theory of Practice*. New York: Cambridge University Press, 1977.
- Bronfenbrenner, U. *Experimental Human Ecology*. Cambridge, Mass.: Harvard University Press, 1979.
- Brushlinskii, A. V. *Kul'turno-istoricheskaya teoriya myshleniya* (The cultural-historical school of thinking). Moscow: Vysshaya Shkola, 1968.
- Chaiklin, S., and Lave, J. *Understanding Practice: Perspectives on Activity and Context*. New York: Cambridge University Press, 1993.
- Cole, M., Gay, J., Glick, J. A., and Sharp, D. W. *The Cultural Context of Learning and Thinking*. New York: Basic Books, 1971.
- Cole, M., Griffin, P., and Laboratory of Comparative Human Cognition. *Contextual Factors in Education*. Madison: Wisconsin Center for Educational Research, 1987.
- Dewey, J. *Democracy and Education*. New York: Macmillan, 1916.

- Dewey, J. *Logic: The Theory of Inquiry*. Troy, Mo.: Holt, Rinehart & Winston, 1938.
- Engelsted, N., Hedegaard, M., Karpatscholf, B., and Mortenson, A. *The Societal Subject*. Aarhus, Denmark: Aarhus University Press, 1993.
- Engeström, Y. E. *Learning by Expanding*. Helsinki, Finland: Oy, 1987.
- Engeström, Y. E. "Developmental Studies of Work as a Testbench of Activity Theory: The Case of Primary Care Medical Practice." In S. Chaiklin and J. Lave (eds.), *Understanding Practice: Perspectives on Activity and Context*. New York: Cambridge University Press, 1993.
- Gay, J., and Cole, M. *The New Mathematics and an Old Culture*. Troy, Mo.: Holt, Rinehart & Winston, 1967.
- Gibson, J. *The Senses Considered as Perceptual Systems*. Boston: Houghton Mifflin, 1979.
- Giddens, A. *Central Problems in Social Theory*. London: Macmillan, 1979.
- Goodwin, C., and Goodwin, M. H. "Perception, Technology, and Interaction on a Scientific Research Vessel." *Social Studies of Science*, in press.
- Hickman, L. *John Dewey's Pragmatic Technology*. Bloomington: Indiana University Press, 1990.
- Hutchins, E. "The Social Organization of Distributed Cognition." In L. B. Resnick, J. M. Levine, and S. D. Teasley (eds.), *Perspectives on Socially Shared Cognition*. Washington, D.C.: American Psychological Association, 1991.
- Jacobson, R., and Halle, M. *Fundamentals of Language*. The Hague, Netherlands: Mouton, 1956.
- Laboratory of Comparative Human Cognition. "Culture and Cognitive Development." In W. Kessen (ed.), *Mussen's Handbook of Child Psychology*. Vol. 1. (4th ed.) New York: Wiley, 1983.
- Lave, J. *Cognition in Practice: Mind, Mathematics, and Culture in Everyday Life*. New York: Cambridge University Press, 1988.
- Lave, J., and Wenger, E. *Situated Learning: Legitimate Peripheral Participation*. New York: Cambridge University Press, 1991.
- Lektorsky, V. A. *Subject, Object, and Cognition*. Moscow: Progress, 1980.
- Leontiev, A. N. "The Problem of Activity in Psychology." In J. V. Wertsch (ed.), *The Concept of Activity in Soviet Psychology*. Armonk, N.Y.: Sharpe, 1981.
- Marx, K. "Theses on Feurbach." In L. D. Easton and K. H. Guddat (eds.), *Writings of the Young Marx on Philosophy and Society*. New York: Doubleday/Anchor, 1967. (Originally published 1845.)
- Nardi, B. (ed.). *Activity Theory and Human-Computer Interaction*. Cambridge, Mass.: MIT Press, 1994.
- Norman, D. "Cognitive Artifacts." In J. Carroll (ed.), *Designing Interaction: Psychology at the Human-Computer Interface*. New York: Cambridge University Press, 1991.
- Pepper, S. *Word Hypotheses*. Berkeley: University of California Press, 1942.
- Raeithel, A. "Symbolic Reproduction of Social Coherence." *Mind, Culture, and Activity*, 1994, 1, 69-88.
- Rossi-Landi, F. *Language as Work and Trade: A Semiotic Homology for Linguistics*. South Hadley, Mass.: Bergin & Garvey, 1983.
- Salomon, G. (ed.). *Distributed Cognition*. New York: Cambridge University Press, 1993.
- Scribner, S. "Cognitive Studies of Work." *Quarterly Newsletter of the Laboratory of Human Cognition*, 1984, 6 (entire issues 1 and 2).
- Van der Veer, R., and Valsiner, J. *Understanding Vygotsky: A Quest for Synthesis*. Oxford, U.K.: Blackwell, 1991.
- Vygotsky, L. S. *Mind in Society*. Cambridge, Mass.: Harvard University Press, 1978.
- Wertsch, J. *The Soviet Concept of Activity*. Armonk, N.Y.: Sharpe, 1981.
- Zinchenko, V. P. "Vygotsky's Ideas About Units for the Analysis of the Mind." In J. V. Wertsch (ed.), *Culture, Communication, and Cognition: Vygotskian Perspectives*. New York: Cambridge University Press, 1985.

MICHAEL COLE is professor of communication and psychology at the University of California, San Diego.

CONCLUSION

We began this project with a particular purpose—one that we saw as especially apt for a time when references to social contexts are increasing in frequency and diversity. We wanted to introduce a concept, to demonstrate several of the ways in which it is being thought about and pursued in research, and to point to some propositions that cut across the variety.

We are well aware that the coverage has gaps: inevitable in a short volume with a strict page limit. (Every contributor concluded with a sense of important points foregone.) The temptation, then, in any final comment is to try to mention everything that has not yet been covered.

In the face of that impossibility, we shall end by noting a single new direction—one that flows from Michael Cole's commentary. He has pointed to the need for some integration of practice theories and activity theories. We see the need as well to bring together approaches that emphasize actions and approaches that emphasize meanings. These, too, lack integration. "Meanings" appear under the labels of belief systems, cultural models, folk theories, consensus models, social representations, explanatory styles, and the interpretation of practices (see, for example, D'Andrade and Strauss, 1992; Duveen and Lloyd, 1990; Harkness and Super, in press; Modell, 1994).

Lave (1993) has suggested that these two broad approaches to contextualizing development differ both in their emphasis and in their history. The first concentrates on the nature of engagement with an activity; its tradition is likely to be activity theory. The second "focuses on the construction of the world in social interaction" (Lave, 1993, p. 17); its tradition is likely to be phenomenological social theory. The contrast is provocative, and we join Lave in urging attention to both these approaches and to the continuing analysis of their interconnections and of what each contributes to the overarching problem of contextualizing development.

Jacqueline J. Goodnow
Peggy J. Miller
Frank Kessel
Editors

References

- D'Andrade, R. G., and Strauss, C. *Human Motives and Cultural Models*. New York: Cambridge University Press, 1992.