

# Voices of the Mind

A Sociocultural Approach to  
Mediated Action

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are differences between groups; important differences between such groups obviously remain. As I shall suggest, they can be understood in terms of how subjects recognize and create contexts by using various items from a tool kit.

The tool kit analogy represents an extension of my basic claims about the need to place mediated action and mediated agency at the center of our analyses. What is new is that, in addition to recognizing that the agent is the individual(s)-operating-with-mediational-means, there is a need to provide some account of why one of several possible mediational means is employed on a particular occasion. Given that the selection and use of mediational means is assumed not to be random, some sort of an account of the organization of mediational means is required.

I would emphasize that this line of reasoning does not assume that differences in the level of mastery of mediational means are unimportant and that the selection of a mediational means is the only dynamic at issue. In my view, however, the possession metaphor has come to dominate the discourse on these issues to such a degree that it often blinds us to other accounts of how and why people are different in their mental functioning.

In order to address these issues, I want to extend Vygotsky's account of mediation by exploring the tool kit analogy. My account will revolve around two basic problems: first, the notion of "heterogeneity," a notion developed, or redeveloped, by Peeter Tulviste (1978, 1986, 1987, 1988), which contributes to a general framework for understanding the nature of a tool kit; and second, the implications of a sociocultural approach to meaning (see Chapter 4) for a tool kit approach.

### Heterogeneity

In his account of verbal thinking, Tulviste (1986) has addressed what I am here terming a tool kit approach under the heading *heterogeneity*: "The phenomenon of the heterogeneity of verbal thinking (or 'cognitive pluralism') consists of the fact that in any culture and in any individual there exists not one, homogeneous form of thinking, but different types of verbal thinking" (p. 19). Tulviste has borrowed the term "heterogeneity" from Lévy-Bruhl (1923), noting an essential assumption in the latter's use of this term: *qualitatively different* forms of thinking exist. By assuming this rather than that different forms

could be distinguished strictly according to some quantitative dimension (for example, stages in a single developmental hierarchy), Lévy-Bruhl was able to generate several insights, which, as Tulviste points out, have often been overlooked or misinterpreted. In particular, it led Lévy-Bruhl to argue that "the intellectual activity of primitive man is not a lower, less-developed form of 'our' intellectual activity (as Spencer and other evolutionists asserted), but is qualitatively different from the latter" (Tulviste, 1987, p. 7).

As Tulviste notes, scholars have long employed some version of a notion of heterogeneity of thinking, but, on balance, heterogeneity has been given relatively little attention in most schools of psychology, even though an understanding of it might suggest solutions to many of the intractable issues these schools have addressed. Tulviste finds it particularly surprising that it has not been a topic of investigation in analyses of historical and cross-cultural differences.

Of the positions that have been taken on heterogeneity, some focus on thinking, others focus on something more specific, such as verbal thinking, and still others cast their discussion in terms of behavior. These differences are significant, especially because certain forms of heterogeneity can be distinguished from others on the basis of what is being ranked. What unites the work of the philosophers and psychologists I shall review is the opinion that a fundamental characteristic of human activity is the existence of a variety of qualitatively different forms of representing and acting on the world.

The three major positions on heterogeneity I shall outline differ in their view of how thinking, verbal thinking, behavior, or whatever, are organized, both in terms of genesis and in terms of power or efficacy. The first position views forms of representation and action as ranked, both genetically and in terms of power or efficacy; indeed, these two kinds of ranking are collapsed so that whatever emerges later is assumed to be inherently more powerful. This position, which I shall term *heterogeneity as genetic hierarchy*, can be summarized by saying that "later" is viewed as more powerful (and often, at least implicitly, as better). The second position assumes that forms of representation and action can be ranked genetically, but this does not mean that later forms are assumed to be more powerful. This position, which I shall term *heterogeneity despite genetic hierarchy*, can be summarized by saying that although some forms of functioning emerge later than others, they are not inherently better. Finally, the third position claims that there is no inherent ranking, either in terms of genesis or in terms of

power, of the various forms of representation and action in human mental functioning. This is a position that I shall term *nongenetic heterogeneity*.

### *Heterogeneity as Genetic Hierarchy*

As Tulviste (1986) observes, when the heterogeneity of verbal thinking has been addressed at all in psychology, it has usually been seen as a problem involving different stages in a developmental hierarchy. According to this view, "having attained higher stages in the development of thinking, humans sometimes nonetheless drop to lower levels, to already completed stages of ontogenesis or sociogenesis [i.e., socio-cultural history] . . . It is held that the completed stages in the development of thinking are not lost without a trace, but are preserved, and the return to them is viewed as regression" (p. 19). Here, developmentally later phases are seen as inherently higher in terms of power or efficacy. I would note the terms "drop" and "regression" in Tulviste's summary of this position, which often uses terms such as "higher," "levels," and "primitive" in a relatively undifferentiated way, one that does not distinguish between being developmentally higher and being higher in terms of power or efficacy.

A commitment to the notion of heterogeneity as genetic hierarchy is evident in the writings of several major developmental psychologists. One of the basic assumptions behind Werner's approach was that "man possesses more than one level of behavior" (1948, p. 39); that is, human mental functioning is characterized by heterogeneity and this heterogeneity is organized in terms of a genetic hierarchy. As he states, "the normal adult, even at our own cultural level, does not always act on the higher levels of behavior. His mental structure is marked by not one but many functional patterns, one lying above the other. Because of this the isolated individual, genetically considered, must occasionally exhibit in his varying behavior different phases of development" (p. 38). This assumption surfaces at many points in Werner's writings. It was explicit in his genetic experiments on "primitivation," and it provided the framework within which he approached issues such as the pathologically primitive (for example, schizophrenic) structure of human personality. With regard to the role of genetic ranking in the everyday activity of normal western adults, Allport's comments in his foreword to Werner's *Comparative Psychology of Mental Development* are instructive: "No matter how confidently we pride ourselves on our logical acumen and capacity for scientific inference, our thought

too turns out to be primitive much of the time. While tactfully confining himself to children, primitives, and psychotics, the author tells us in a sly way more than a little about our own mental lives" (1948, p. xii).

Vygotsky addressed the issue of heterogeneity most specifically in his analysis of concept development, yet his comments on this issue reveal a certain ambivalence in his thinking. In some cases, he seemed to assume that heterogeneity does not exist, since there is a powerful tendency for later forms of mental functioning to transform and incorporate earlier forms: "thanks to the mastery of this new structure [i.e., of scientific concepts], [a child] rebuilds and transforms the structure of all previous concepts . . . The formal discipline of studying in scientific concepts results in the transformation of the child's entire sphere of spontaneous concepts. The major significance of scientific concepts in the history of children's mental development consists of this" (1982b, pp. 280–287).

Elsewhere in his writings, however, Vygotsky seems to have assumed that earlier forms of speaking and thinking are not always transformed and incorporated by later forms. In this connection he argued that even with the emergence of genuine and scientific concepts, humans continue to have access to everyday concepts and, indeed, often employ the latter: "children who have mastered a higher form of thinking—[genuine] concepts, by no means leave more elementary forms behind. For a long time these elementary forms remain the quantitatively predominant and leading type of thinking in many areas of children's experience. Even in the case of adults, as we have noted earlier, it is far from always the case that they think in concepts. Their thinking often is carried out on the level of complexes, sometimes dropping to still more elementary, more primitive forms" (p. 176).

This formulation clearly reflects Vygotsky's acceptance of a notion of heterogeneity as genetic hierarchy and seems to be more representative of his overall approach. It is something he specified in more detail in his use of an analogy from geology: "one cannot think of . . . the process of shifting among various forms of thinking and distinct phases in its development as a purely mechanistic process in which each new phase emerges when the previous one is completely finished and completed. The picture of development turns out to be much more complex. *Different genetic forms coexist*, just as in the earth's core the deposits of quite different geological epochs coexist" (1956, p. 204). This geological metaphor is one that Luria (1973) also employed in explicating various genetically organized levels of mental functioning. In particular,

he used it in his analyses of the breakdown and remediation of neuropsychological functioning after brain injury.

There are strong parallels in Werner's, Vygotsky's, and Luria's treatment of heterogeneity. For all of them, however, heterogeneity exists because different genetic levels of functioning exist. In terms of the tool kit analogy, it is as if the tools are acquired in a certain order and are therefore *inherently* organized along a continuum from lower to higher, or from less powerful to more powerful. These theorists are also alike in that they say very little about when and why a subject would use anything less than the highest (that is, most powerful) form of mental functioning available.

The latter issue raises some very important questions that have puzzling, if not embarrassing, implications for all three approaches. In general, it would appear to be nonsensical to select a less powerful, and hence less appropriate, mediational means than is available to approach a task. As Tulviste notes, "it is incomprehensible why [lower forms of thinking] must be preserved when the 'savage' or child has mastered higher stages in the development of thinking" (1986, p. 19). This paradox remains the major unresolved issue for approaches that treat heterogeneity in terms of genetic hierarchy.

### *Heterogeneity despite Genetic Hierarchy*

A second major position on heterogeneity holds that different forms of mental functioning or behavior emerge at different periods, but that later ones are not inherently more powerful or efficacious than earlier ones. As Tulviste points out, several theorists have taken this position. One of those he cites is William James.

In his chapter in *Pragmatism* called "Pragmatism and Common Sense," James deals with three types of thinking: common sense, science, and critical philosophy. Although he spoke of these as "levels" or "stages" that have emerged at different points in history, he refused to accept the assumption that one is inherently more powerful (or more *true*) than another.

It is impossible . . . to say that any stage as yet in sight is absolutely more *true* than any other. Common sense is the more *consolidated* stage, because it got its innings first, and made all language into its ally . . . [However,] if common sense were true, why should science have had to brand the secondary qualities, to which our world owes all its living interest, as false, and to invent an invisible world of points and curves and mathematical equations instead? . . . But now

if the new kinds of scientific "thing," the corpuscular and etheric world, were essentially more "true," why should they have excited so much criticism within the body of science itself? (1916, pp. 190-191)

James's approach to the three types of thinking was based on a "pragmatistic view that all our theories are *instrumental*." These modes of mental functioning must be viewed as tools, or instruments, for dealing with particular tasks rather than as "revelations or gnostic answers to some divinely instituted world enigma" (p. 194). The upshot is that different forms of thinking are more appropriate for different spheres of human activity. "Common sense is *better* for one sphere of life, science for another, philosophic criticism for a third." On the issue of whether any one of these forms of thinking is inherently better in the sense of being truer, James answered, "Heaven only knows" (p. 190).

A particularly important aspect of James's approach is that he did not assume that common sense is somehow more primitive or lower than other forms of thinking. It is clearly genetically prior in his view (it "got its innings first"), yet this by no means implies that he viewed it as less efficacious or powerful. On the contrary, it "is *better* for one sphere of life." By separating genetic hierarchy from the hierarchy of power or efficacy, James's view is one of heterogeneity despite genetic hierarchy.

Building on other theoretical foundations, Tulviste (1986) has also developed a position of heterogeneity despite genetic hierarchy. His approach arises from his criticism of the psychology of thinking, child psychology, and educational psychology. Studies in these fields, he claims, tend to assume that "[more] developed forms of thinking can simply be equated with scientific [*nauchnyi*] thinking" (p. 24). This leads to the assumption that "pre-scientific" forms of thinking have no independent significance.

In contrast, Tulviste proposes an "activity-oriented" approach that shares certain underlying assumptions with the type of instrumentalism found in the pragmatistic approach outlined by James. According to this view,

there is an obvious connection between various forms of activity and the heterogeneity of thinking. This is true both between and within cultures. The reason for the heterogeneity of verbal thinking must not be sought in the accidental preservation in society or in the individual of "old," "lower," or "previous" sociogenetic [social historical] or ontogenetic stages of thinking. Instead, it must be

sought in the multiplicity of activities that are distributed in society and carried out by the individual. Heterogeneity developed through social history such that with the development of material and mental production new forms of activity appeared. These new forms of activity required new types of thinking and gave rise to them. At the same time, to the degree that earlier forms of activity, which fulfill some role in the culture, are preserved, the "old" types of thinking that correspond to them are preserved and continue to function. (pp. 24–25)

Although Tulviste does not specifically address the issue of a pragmatic theory of truth, his notion of activity overlaps with the notion of a "sphere of life" that James mentioned in describing where common sense, science, and critical philosophy may be adequate and appropriate.

Tulviste makes a further claim about an unfounded assumption he sees in the work of many scholars who have tried to make cross-cultural or cross-historical comparisons. This is the assumption that it is possible to characterize an individual or a society on the basis of a particular type of activity and a corresponding form of thinking. As he states, "the tendency to make a global opposition between the thinking of people in one culture with that of people in another is misguided. Types of thinking correspond not with different cultures, but with different forms of activity. It is not reasonable to speak of primitive and civilized thinking; instead, it is reasonable to speak of common sensical (everyday, practical thinking), scientific thinking, artistic thinking, and so forth. The basis for such a division is the functional correspondence between certain types of thinking on the one hand and certain types of activity and the tasks that emerge and must be solved in the course of carrying out these activities" on the other (p. 27).

In terms of the tool kit approach to mediational means, the notion of heterogeneity despite genetic hierarchy translates into the view that different tools are acquired at different developmental stages, but they have no inherent ranking with regard to power or efficacy. Some tools are more powerful and efficacious for certain activities or spheres of life, and others are more powerful and efficacious for others.

### *Nongenetic Heterogeneity*

Nongenetic heterogeneity, the third type, has in common with heterogeneity despite genetic hierarchy the assumption that there is no inher-



ent ranking of the power or efficacy of psychological tools; different mediational means are viewed as being appropriate for different settings or tasks. But it differs in that, in this case, the variation in mediational means is not tied to development. Those approaches that can be grouped under the heading nongenetic heterogeneity may assume that development occurs *within* various psychological tools, but they do not view the forms themselves as being distinguished or ranked on the basis of order of appearance.

The work of Carol Gilligan (1982) provides a good example of an approach grounded in assumptions of nongenetic heterogeneity. Gilligan has argued that, as a result of much of the theorizing done in psychology, "the thinking of women is often classified with that of children" (p. 70). In contrast to such theorizing, which makes the implicit assumption that mental functioning can be ranked along a single continuum, she has called upon investigators to be more sensitive to the existence of qualitatively distinct forms of mental functioning, each of which has its own developmental path. In this connection, Gilligan writes of the "distinct moral language" she found in interviews with women about the dilemmas posed by abortion and states that its "evolution traces a sequence of development." This distinct moral language is grounded in an ethic of care, which defines moral problems in terms of the "obligation to exercise care and avoid hurt" (p. 73), in sharp contrast to a moral language concerned with abstract rights and the "logic of justice" (p. 30).

Gilligan argues that mature forms of thinking involve an interanimation of these two languages, but she assumes that each follows a somewhat independent genetic path during earlier phases of development. This recognition of a diversity that is not tied to genetic hierarchy puts Gilligan's approach in the category of nongenetic heterogeneity. A tool kit based on a view such as Gilligan's, therefore, would include several items that can be ranked neither in terms of genesis nor in terms of power or efficacy. The various tools (in this case, "languages") are presumed to emerge and develop largely independently of one another.

### The Tool Kit Analogy and Bakhtin

When the notion of heterogeneity is considered from the perspective of a Bakhtinian approach to meaning (see Chapter 4), it raises a host of challenges and claims, foremost among them the question of how to