1 Introduction

Constructing Meaning through Collaborative Inquiry

Carol D. Lee and Peter Smagorinsky

The work of Lev Vygotsky (1978, 1987) has been appropriated in the last two decades by scholars in diverse fields to account for the processes of thinking, problem solving, interaction, and meaning construction that contribute to the development of human society. Psychologists (Cole, 1996; Lave & Wenger, 1991; Moll, 1990; Rogoff, 1990; Wertsch, 1985, 1991; Wertsch, del Rio, & Alvarez, 1995) turned to Vygotsky as they struggled to understand the influences of history, culture, and context on human development, both individually and in groups. This recognition and adoption of Vygotsky’s perspective on development occurred in conjunction with broad paradigmatic shifts in the study of cognition. This shift away from the study of the individual and toward the study of the social group and its cultural history highlights the role of social and material context in understanding how knowledge is both constructed and displayed. As is always the case with intellectual inquiry, these evolving traditions did not merely adopt constructs and propositions articulated by Vygotsky, Leont’ev, Luria, and other progenitors of what has come to be know as activity theory (Chaiklin & Lave, 1993; Leont’ev, 1981; Scribner, 1984; Wertsch, 1981) or cultural-historical activity theory (Cole, 1996). As these principles have been adopted by researchers beyond the confines of the Marxist Soviet Union of Vygotsky’s time, they have been adjusted in relation to the social problems of the diverse cultures they have been called on to help understand. In learning from Vygotsky, we have learned new ways to extend him.

Modern applications of Vygotsky have contributed to research in literacy practices and development, which in turn have contributed to the evolution of Vygotsky’s theory of human development. This volume addresses current dialogue in the field of literacy research that is influenced
by central tenets of Vygotsky’s work. Vygotsky’s core assertions include these principles:

1. Learning is mediated first on the interpsychological plane between a person and other people and their cultural artifacts, and then appropriated by individuals on the intrapsychological plane.

2. Learning on the interpsychological plane often involves mentoring provided by more culturally knowledgeable persons, usually elders, who engage in activity with less experienced or knowledgeable persons in a process known as scaffolding (Bruner, 1975). Knowledge is not simply handed down from one to the other, however. As Newman, Griffin, and Cole (1989) point out in describing children’s instruction by adults, “The appropriation process is reciprocal, and cognitive change occurs within this mutually constructive process. While instructional interactions favor the role associated with the teacher, we cannot lose sight of the continually active role of the child” (p. 58). Meaning is thus constructed through joint activity rather than being transmitted from teacher to learner.

3. The concepts, content knowledge, strategies, and technologies – that is, the mediational tools (Wertsch, 1985, 1991) or artifacts (Cole, 1996) – that are drawn on in the act of meaning construction, are constructed historically and culturally; thus cognition is “distributed” (Pea, 1988; Pea & Gomez, 1992; Salomon, 1993); that is, individuals are connected to cultural history and its manifestation in everyday life. People, tools, and cultural constructions of tool use are thus inseparable (Wertsch, 1991). This construct suggests that learning is inherently social, even when others are not physically present (Bakhtin, 1981, 1986; Perkins, 1993; Smagorinsky, 1995). Because speech is, in the words of Luria (cited in Cole, 1996, p. 108), the “tool of tools,” language becomes the primary medium for learning, meaning construction, and cultural transmission and transformation.

4. The capacity to learn is not finite and bounded. Rather, the potential for learning is an ever-shifting range of possibilities that are dependent on what the cultural novice already knows, the nature of the problem to be solved or the task to be learned, the activity structures in which learning takes place, and the quality of this person’s interaction with others. In other words, context and capacity are intricately intertwined (Ceci & Ruiz, 1993; Fredericksen, 1986; Gardner, 1991; Lee, 1993; Rogoff, 1990; Rogoff & Lave, 1984; Smagorinsky, 1995). Vygotsky (1978, 1987) argued that because learning takes place in this zone of proximal development (ZPD), teaching should extend the student beyond what he or she can do without assistance, but not beyond the links to what the student already knows.
Introduction

These core tenets of Vygotsky’s theory have influenced current debates in literacy research in part because of the centrality of language and the inherently social nature of literacy learning and practice. The following questions are at the heart of such a debate:

- What is the role of language in learning to read and write?
- What is the role of dialogue in literacy learning?
- How do we study the complexity of joint activity in classrooms and other spaces where literacy is learned and practiced?
- How do cultural practices and beliefs contribute to the practices and the learning of literacy?
- What implications do these dilemmas have for the professional development of teachers, both preservice and in-service?

The chapters in this volume extend and explore Vygotsky’s core tenets as a way of contributing to this dialogue in literacy research.

These core Vygotskian principles have provided the basis for modern analysis; at the same time, Vygotsky’s ideas have been modified through the studies that draw on them. Modern refinements have helped make Vygotskian principles relevant to the framing of diverse social problems not apparent through Vygotsky’s primarily laboratory experiments. Wertsch (1991) notes: “one of the major unresolved issues for a socio-cultural approach to mind is how, other than through the influence of decontextualization associated with literacy and ‘literacy practice’ (Scribner & Cole, 1981), mental functioning changes” (p. 22). For instance, Vygotsky (1987) identified the importance of verbal mediation in learning and problem solving. He emphasized mastery of linguistic systems of decontextualized categorization as evidence of higher mental functioning. Wertsch (1985, 1991) noted that an emphasis on verbal mediation is a decidedly Western value. Wertsch (1991) and Bruner (1990) describe a cultural “tool kit” of mediational means, expanding Vygotsky’s conception of mediational means to include goal-directed, tool-mediated action. This framework takes into account mediators (e.g., computers, art, music) that are not necessarily verbally mediated.

Cole (1996) has also critiqued Vygotsky for being insufficiently cultural through his reappraisal of Vygotsky’s (1987) claim that biological and cultural lines of development intersect at about the age of 2. Pointing to research on how infants are encouraged to behave, Cole has argued that the cultural line of development is present from the time of a baby’s first contact with other people. These examples illustrate how, while providing a foundation for a psychology of human development – one that remains
remarkably intact given the passage of time and the crossing of cultural boundaries it has endured – Vygotsky’s tenets become salient to subsequent generations through a process of transformation and adaptation. To apply the processes of learning and teaching described by Newman et al. (1989) to how researchers have learned from Vygotsky, the transformation process that takes place when subsequent generations of researchers call on Vygotskian principles is reciprocal and mutually constructive, requiring the active role of the learner (in this case, the researcher) in both adopting cultural knowledge (that is, Vygotsky’s published writing) and constructing new meaning from it.

The chapters in this volume seek to draw on Vygotsky and, in the process, transform him to meet new social challenges. They do so by examining literacy practices in diverse sites (e.g., Arnetta F. Ball’s study of professional development in American and South African universities; Carol D. Lee’s, Kris Gutiérrez & Lynda Stone’s, and Anne Haas Dyson’s research in urban high schools and primary schools) and by relating Vygotsky’s views to those of scholars from a wide spectrum of disciplines (e.g., James V. Wertsch’s reexamination of Vygotsky’s own development through the historical analysis of Charles Taylor, LeAnn Putney and colleagues’ incorporation of Vygotsky’s ideas with those of sociolinguists, and Luis C. Moll’s union of Vygotsky with the work of Cuban psychologists previously unavailable to Western readers). Through these efforts, we see an affirmation of the dynamic quality of Vygotsky’s work and the foundation and stimulus it has provided for understanding the effects of culture on the acquisition and enactment of literacy in societies he never could have envisioned.

In this volume the authors turn their attention to the role of social context in human development. How do the richness and complexity of the setting, the various actors, their goals, and the psychological and cognitive tools available in the setting (Bruner, 1986; Cole, 1996; Wertsch, 1991) all interact to expand the meanings that are constructed and how those meanings are constructed? These are the questions wrestled with by teachers and researchers as well as those in workplace and other settings where learning occurs. In sociocultural studies of literacy and meaning-making, researchers now consider the following issues as central to understanding how people come to learn new knowledge and make new interpretations using the tools of language, written texts, the act of composing, and other symbol systems (such as those used in the arts):

- The importance of speech in relation to learning
- The distinct semiotic potential of different kinds of tools and signs
Introduction

- The distribution and negotiation of knowledge within social groups working on common tasks
- The ways in which literate practices occur and evolve outside traditional schooling and an appreciation of the complexity of such practices.

To distill these concerns into an overriding objective, the contributors to this volume are fundamentally concerned with the role of joint activity in the construction of meaning in formal learning experiences, primarily those that take place in school. Because of the collective emphasis on the social nature of learning, the authors focus on how people form communities of practice and operate within them. These communities of practice are often problematic, with subgroups forming within them acting in subversive ways. The idea of community, then, does not necessarily refer to a sense of harmony, but rather to a shared set of social practices and goals that become differentiated among subgroups or idiocultures (Fine, 1987). The chapters in this volume flesh out the complexity of joint activity, not as a process of one-way appropriation, but rather as a process of multidirectional change over time. In such joint collaborative activity, teachers, students, and even the nature of the task all change over time and are negotiated among interlocutors in complex ways.

Such communities of practice are essentially cultural. Part of the power of the chapters in this volume is in the way they address the cultural issues raised by Vygotsky’s writings. Vygotsky argued that cultural artifacts – whether physical or conceptual tools – are historically constructed. He made explicit acknowledgment of the centrality of language as a semiotic tool through which individuals across developmental stages make sense of phenomena and solve problems. His conception of the ZPD includes the use of language between novice and more expert others as a tool for mediating misconceptions and consolidating understandings. In this volume, James V. Wertsch explores the bumpy intellectual territory in which Vygotsky struggled to consolidate his ideas about the functions of language, vacillating between what Taylor (1985) describes as the expressivist and designative traditions.

This struggle between what appear on the surface as competing traditions and assumptions about the function of language in meaning-making highlights the continued need to grope with the question of the semiotic potential of language. Currently, in the United States as well as in nations in other parts of the world (Saville-Troike, 1989), politically motivated power struggles in institutional settings, especially that of formal schooling, persist over the semiotic potential of symbol systems and, within particular systems, genres. Whole disciplines (arts, home economics, and
others) are devalued because they rely on nonlinguistic symbol systems (Gardner, 1983; Smagorinsky, 1995b). Within language-based systems, the modal practice is one in which devalued language varieties are not viewed as intellectual resources (Cazden, 1988; Lee, 1997). Such language varieties may include African American English Vernacular, Chicano English, Appalachian English, and other national languages such as Spanish and its varieties (Tex Mex, Puerto Rican Spanish).

Gee (1990) argues that Discourse includes more than issues of syntax, phonology, and vocabulary; it also includes certain beliefs, values, and social practices through which members of a speech community constitute their identities. Bakhtin (1981) calls such Discourses social languages. Gutiérrez and Stone, Lee, Moll, and Putney and colleagues in this volume make a case for classrooms as speech communities in which Discourse and identity are intertwined. All four authors provide rich examples of how the community languages that students bring to the classroom become cognitive resources, consciously used by teachers to extend student learning. In addition, they argue that the norms for who can talk, about what, with whom, and when offer either opportunities or constraints for how students are able to negotiate their understandings. Dyson adds to this conversation by looking at how issues of ethnic and gender identities, as well as the children's collective participation in media culture, are social and cognitive resources in the classrooms she describes.

These chapters extend and layer our understanding of the centrality of language as a semiotic tool, a perspective fundamental to all of Vygotsky's arguments. Vygotsky's conception of a ZPD implies that more knowledgeable other(s) must understand and attend to the novice's conceptions of the target task and the cognitive resources that the novice brings to it. The interplay between the novice and the more expert other(s) is negotiated through language and use of artifacts. Thus, the expert must consider the semiotic tool of language through which both parties communicate ideas and understandings and in which forms of relevant prior knowledge are couched. The mediation between these parties is a form of collaboration. The historical roots of such collaboration are explored by Wells. Examples of how that collaboration unfolds, particularly in classrooms where diverse languages meet, are fleshed out in the remaining chapters in this book.

The contributors also focus on the notion of learning as a process of inquiry, an extension of Vygotsky's (1987) view that meaning is constructed through the process of articulating ideas. This articulation includes both the transformation of inner speech to public speech and the use of public
speech in exploratory ways as learners tentatively propose and reflect on ideas in the pursuit of answers to authentic questions. As the contributors to this volume assert, the reconceptualization of school as a site for collaborative inquiry is not unique to Vygotsky but is a central theme in the work of Dewey (1956). The notion of collaborative inquiry, then, is presented here as an overarching goal for the process of education and includes the necessity for teachers to view their work as a means of learning (cf. Sarason, 1990).

To begin the volume, James V. Wertsch points to what he describes as an unresolved conflict in Vygotsky’s own work: Vygotsky’s (1987) apparently discrepant accounts of the source of meaning construction in human thinking. On the one hand, Vygotsky argues that meaning is constructed through signs, a post hoc attribution of meaning to a communicative artifact, even one as evanescent as the spoken word. Later, however, Vygotsky describes meaning as a function of the process of transforming inner speech into public speech, a constructive process that occurs during, rather than after, the process of articulation. Wertsch finds these two accounts of meaning to be unreconciled in Vygotsky’s writing and attributes his seeming inconsistency to his concomitant exposure to two Western philosophical traditions, described by Charles Taylor as the designative and expressivist traditions. Through his analysis, Wertsch locates Vygotsky as a cultural being whose thinking was mediated by conflicting philosophical heritages, heritages that, Wertsch argues, continue to shape Western thinking. Rather than attempting to resolve the problem of how to escape cultural constraints or resolve ancient disputes, Wertsch offers his analysis of Vygotsky as embodying a tension that any member of Western society needs to acknowledge in order to think about questions of meaning.

Wertsch’s identification of the expressivist and designative traditions of thought provides a framework for understanding themes developed in later chapters. All authors in this volume address the question of how meaning is socially constructed through language. Both the expressivist and designative functions of speech are implicated in these accounts. Several authors focus on the importance of encouraging exploratory speech in classrooms, enabling students and teachers to talk through their ideas on their way to constructing meaning. This tentative use of speech falls squarely within the expressivist tradition and includes attention to inquiry through both spoken and written language (e.g., the idea that writing can be a tool for exploring ideas). The designative functions of speech are also critical to communities of inquiry because of the need for intersubjectivity in imputing meaning to words. Wertsch’s attention to this paradox
in Vygotsky's thinking thus helps frame issues of teaching and learning explored in subsequent chapters.

Vera John-Steiner and Teresa Meehan next identify a second paradox implicit in Vygotsky’s account of internalization. How, they ask, do people learn to create new knowledge if thinking is social in origin? If sign-and-tool systems are initially functions of the environment and if learning involves their internalization, how then do people construct new knowledge? John-Steiner and Meehan assume that learning is fundamentally social and cultural and thus collaborative. To understand the paradox of how new learning occurs if learning is tied to internalization, they examine cases of exceptional creativity, including those of Albert Einstein and others involved in integrative collaboration. They argue that creativity involves imagination and thinking in complementary relationships in which social groups are involved in the process of constructing new knowledge by internalizing some aspect of collaborators’ knowledge. The creativity or new knowledge constructed may be related to but is ultimately different from the knowledge previously held by any one member of the group or by antecedent members of a culture.

Gordon Wells explicitly describes the need for learning to take place within communities of collaborative inquiry. In Wells’s view, Vygotsky’s notion of the zone of proximal development suggests that all learning is in some way collaborative, even in cases where immediate human contact is absent. The inherently social nature of learning is a function of the cultural history of mediational tools; that is, tools have historical uses within particular cultures and thus serve to connect members of cultures through shared values. Wells argues that learning takes place through a process of inquiry within a social group, with the inquiry involving the pursuit of authentic questions and learning involving the construction of meaning that comes through exploration. In a community of learners, all participants – including those designated as teachers – engage in inquiry. Wells sees classrooms as sites of two overlapping communities of learners: (1) the students and teacher(s) within particular classrooms who identify and explore questions together and (2) a cohort of practicing teachers whose classroom inquiries become part of a professional development quest in a process known as teacher research. To Wells, language plays a central role in these inquiries as the primary medium through which learning occurs – that is, through its expressivist function – and through which meaning is shared – that is, through its designative function. He thus sees inquiry as being a dialogic process that, due to its social nature, is necessarily collaborative.
Introduction

Leann Putney and colleagues provide an ethnographic study of one classroom to identify the ways in which people learn through joint community action, and to show how the group’s social practices shape and are shaped by what members learn over time. Like Wells, they see participation in classroom communities of practice as having consequences for each individual and for the group. To illuminate the significance of particular events, Putney and colleagues analyze the history of specific practices in the classroom, investigate the interactions – especially the discourse – that surround those practices, and represent the distribution of those practices and interactions across and among students, teachers, and other persons routinely present in the classroom. Their analysis provides additional support for the importance of dialogic inquiry as a central medium for developing the means of meaning construction.

Anne Haas Dyson looks at collaborative inquiry through her study of a group of second- and third-grade children in an ethnically diverse classroom in California as they interact in the process of co-constructing stories about superheroes. Dyson documents, largely through narrative analysis, the ways that race, gender, and the social relationships among specific students converge not only through the stories the children tell, but also in the processes of co-construction that occur. The children Dyson describes live, as she describes it, in a contested world replete with social tensions. Learning to write, then, is part of learning to participate in these communities of difference; particularly important is the need to develop an understanding of the consequences for textual choices on other inhabitants of the community. The process of writing, then, is simultaneously a process of meaning-making and a process of social interaction. Writing is thus an act of social responsibility through which students need to understand themselves as social agents who contribute to the construction of a community, for good or ill.

Kris Gutiérrez and Lynda Stone approach the challenge of understanding the culture of classrooms by offering an additional analytical framework, the idea of official scripts and counterscripts in classroom discourse. They do so by endorsing the idea of studying simultaneously occurring social practices in classrooms rather than by focusing on the official script typically following from a teacher’s intentions and discourse. Gutiérrez and Stone argue that the official script represents the goals that the teacher has for instruction, while the counterscript represents actions by students that either contradict or resist the teacher’s goals. Gutiérrez and Stone argue that the process of learning can be affected by the interactions that occur when these two scripts come face to face in the classroom every
day. They argue that researchers should study such counterscripts, their discourse traits, and how they evolve, and should study what these scripts reveal about what students know, what they value, and what meaning they have imputed to the literacy task at hand. This chapter considers the kind of discussion often overlooked in accounts of collaborative inquiry: the discourse of subversion that takes place within the larger social goals of a group. To Gutiérrez and Stone, this resistant discourse often authenticates students’ concerns and the ways in which they are not addressed in the teacher’s overriding intentions for learning. Not only are the goals of teacher and students at odds here, so are their representations of the task. This chapter reveals the ways in which the assumption of a community may be undermined when instruction does not take into account students’ authentic questions.

The problem of subversive discourse is further explored in the chapter by Peter Smagorinsky and Cindy O’Donnell-Allen. The authors provide an analysis of Cindy’s high school English class, which she deliberately organized to promote both the development of a respectful, supportive classroom community and the use and appreciation of unconventional tools for interpreting literature. Through the establishment of social practices designed to promote collaboration, personal growth, and practice in multiple interpretive and expressive genres, Cindy strove to create a social context in which students would internalize tenets of social responsibility, methods for literary understanding, and a recognition of multiple pathways for constructing meaning. An analysis of small groups interpreting Hamlet through an artistic medium called a body biography, however, reveals that students internalized these concepts to different degrees. Smagorinsky and O’Donnell-Allen focus on two small groups that the authors characterize as idioculturally diverse; that is, the groups formed subcultures within the overall classroom culture, itself an idioculture within the overall cultures of school and community. Illustrating Vygotsky’s principle that appropriation of cultural knowledge is not simply a clear process of transmission but a complex process of reconstruction, these groups operated within Cindy’s progressive pedagogy in more and less democratic ways. The less cooperative of these two case study groups illustrates a different kind of subversion from that described by Gutiérrez and Stone, for the resistant group in Cindy’s class included students whose counterscript rebelled against the idea of identifying and exploring authentic questions. The authors use Leont’ev’s (1981) notion of a setting’s overriding motive to discuss how and why a class designed according to Wells’s dialogic principles can be subverted by students whose goals for