

Toward a Dialogic Theory of Learning: Bakhtin's Contribution to Understanding Learning in Settings of Collaboration

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Abstract: I propose here a new theoretical framework for understanding learning as a socially-grounded phenomenon based the writings of the Russian philologist, M. M. Bakhtin. Bakhtin's writings on the dialogic nature of all texts provide the basis for a new view of language, knowledge, and learning. From this perspective, learning is seen as the process of multiple voices coming into contact, both within and across speaker-produced utterances. Examples are provided of two types of studies based on such a theory of learning: studies of the appropriation of a social language and studies of speech genres. I conclude by recounting the potential advantages of adopting dialogicality as a conceptual basis for ongoing work in CSCL.

Keywords: Bakhtin, social languages, speech genres, theories of learning

In ordinary everyday behavior, in what sense can we examine a talking unless we bring a hearing along with it into account?

(Dewey & Bentley, 1991/1949, p. 127)

Introduction

In the conventional (and occasionally disputed) expansion of the acronym CSCL as "Computer Support for Collaborative Learning," the expression *collaborative learning* is sometimes understood as denoting a particular type of learning, in the same way that *creative writing* denotes a particular type of writing. I would argue, on the other hand, that collaborative learning might be better construed as a *theory of pedagogy*, specifically the theory that learning is enhanced when it occurs in settings of joint activity. If collaborative learning is a theory about teaching, however, what is the theory of learning that underlies work in CSCL? I made the claim previously (Koschmann, 1996) that research in CSCL can be distinguished from other work in educational technology in its adoption of "socially-oriented" theories of learning and went on to describe three possible candidate theories, namely Neo-Piagetian conflict theory, Cultural/Historical Activity Theory (CHAT), and social practice theory.

Here I propose yet another theoretical framework for understanding learning as a socially-grounded phenomenon based on the writings of the Russian philologist, M. M. Bakhtin. References to Bakhtin have begun to appear with increasing frequency in work

on discourse and education. In this paper, I will attempt to show how Bakhtin's treatment of "voice" and "dialogicality" can serve as a basis for reconceptualizing learning.

Bakhtin's Notion of Dialogicality

As a literary theorist, Bakhtin was centrally concerned with issues of language and language use. He examined how novelists like Dickens and Dostoevsky employed different voices in the development of their fictional works. Bakhtin's analysis extended beyond literary text, however, to all uses of language. Indeed, Bakhtinian scholars such as Kozulin (1996), have generalized his ideas to apply to all aspects of human conduct, including "human thoughts, acts, and intentions" (p. 149). Bakhtin's writings on dialogicality are profound and represent a substantive shift from prevailing views on the nature of language and knowledge (Holquist, 1990).(1) *Dialogicality* is a term meant to capture the relational nature of all texts. It shares two roots with the more commonly used *dialogue* (the Greek *dia* for through and *logos* for word) and concerns the way in which dialogue occurs within and across particular utterances. I will briefly survey some of the ways that dialogicality has been developed in the work of Bakhtin and others.

Bakhtin demonstrated how the voices of others become woven into what we say, write, and think. The term *intertextuality* (Kristeva, 1990) can be used to describe this property of all texts, spoken, inscribed, or otherwise performed. Bakhtin used the terms *polyphonous* and *multivocal* to describe text in which multiple voices can be discerned. Polyphony is one way, therefore, in which single utterances can be viewed and analyzed as dialogic.

Wertsch (1998) describes how our culture supplies us with various forms or "patterning," which Bakhtin (1986) describe as *social languages* and *speech genres* (about which I will have more to say later), to facilitate communication. Wertsch (1998) argues that these cultural tools can be *mastered* and/or be *appropriated*. Mastery, for Wertsch, is a special form of internalization that entails knowing how to use a social language or construct text in a particular genre. Appropriation may go along with mastery, but this is not always the case. Appropriation, for Wertsch, involves an aspect of intentionality, that is a tool is appropriated when it can be bent to the agent's purposes. As Wertsch says, "an agent may use a cultural tool but [do] so with a feeling of conflict or resistance" (p. 56). Appropriation and mastery represent a form of tension within a text and, as a result, are analyzable aspect of text production.

Wertsch (Wertsch & Bivens 1992; Wertsch & Smolka, 1993; Wertsch, 1998) also described how the text itself may serve two distinct purposes. The "functional dualism" of text is a concept Wertsch attributes to the Soviet semiotician, Lotman. Lotman (1985) described how text serves both, "to convey meanings adequately and to generate new meanings" (p. 34). Though this tension exists in all texts, the degree to which it evidences itself may vary widely across text types. Some text may be designed to transmit meaning in a way that inhibits all but one canonical reading (e.g., a legal document (2) or a formal proof), while others (e.g., a short story, a poem) maybe designed to be read ambiguously. Bakhtin described a dynamic tension between the *centripetal* (or centralizing) and the

centrifugal (or decentralizing) aspects of all living languages. Some forms of discourse may be designed to suppress the destabilizing aspects of language use by seeking to uphold a particular sanctioned viewpoint, an issue Bakhtin discussed in terms of "authoritative" versus "internally-persuasive" discourses (Prior, 1995).

At its most fundamental, dialogicality addresses an ontological distinction between self and other (Holquist, 1990). All speech (even internal) has an intended audience, a property referred to as *addressivity*. The "other" enters into speech not only as an audience and interlocutor, but is also embedded *in* our every utterance. Bakhtin wrote:

. . . word is a two-sided act. It is determined equally by whose word it is and for whom it is meant. As word, it is precisely the product of the reciprocal relationship between speaker and listener, addresser and addressee. (Voloshinov, 1973, p. 86) (3)

This reciprocal relationship leads to a form of tension that Wertsch (1998) describes as the conflict between *intersubjectivity* (i.e., the need to develop shared understanding with others) and *alterity* (i.e., the opposing need to distinguish oneself from the other). Ultimately, this conflict is the fundamental basis for what I am describing as *dialogicality*.

Learning as Transaction: A Third Metaphor

Deborah Hicks (1996a) wrote, "Learning occurs as the co-construction (or reconstruction) of social meanings from within the parameters of emergent, socially negotiated, and discursive activity" (p. 136). What she is proposing is a theory of learning based on Bakhtin's notion of dialogicality. Wertsch and Smolka (1993) described dialogicality as concerning "the various ways in which two or more voices come into contact" (p. 73) and go on to say, "understanding is a process wherein the utterances of a listener come into contact with and confront the utterances of a speaker" (p. 74). There are some important ramifications of shifting from our more commonly held views of what constitutes learning to a dialogic view. First, such a move has the effect of decentering learning, locating it in social interaction rather than in the head of any one learner. Second, it effects a shift from viewing learning as a discrete achievement or event to a more dynamic and process-based account. Third, since meaning for Bakhtin is always constructed locally and is situationally determined (see definition of *heteroglossia* in the Emerson and Holquist (1981) glossary), dialogicality treats the content of learning, not as given, but rather as emergent, nondeterministic, and contingent (Hicks, 1996a). Finally, there is an element of agency to dialogic learning that is missing in traditional behavioral and cognitive accounts of learning. This aspect of agency adds a normative or moralistic dimension to the theory, as seen in Clark and Holquist's (1984) discussion of "answerability" or Hicks' (1996b) description of the development of self consciousness.

Sfard (1998) described two dominant metaphors for learning: the *acquisition metaphor* in which learning is treated as "gaining possession over some commodity" (p. 6) and the *participation metaphor* in which learning is conceptualized as changing roles and

identities within communities of shared practice. Current socially-oriented theories of learning can be divided on the basis of the metaphor to which the theory appeals-neo-Piagetian conflict theory, Vygotskian internalization theories, and distributed cognition all treat learning as a form of acquisition; while social practice theory explicitly employs a participation metaphor. Earlier (Koschmann, in press), I proposed a third possible metaphor for learning based on Dewey's notion of transactionalism. Using the metaphor of a simple sales transaction, learning can be seen as a transaction taking place between the learner and the enviroing situation. Employing such a metaphor affords a broader view of learning, one that includes both changes to the learner (acquisition effects) and to the learner's social environment (participation effects).

Dialogue is itself a transactional process and, as a consequence, a dialogic theory of learning might be considered to be a transactional theory. Hicks (1996a) described thinking as a "boundary phenomenon," a term she attributes to Emerson (1983) and Shotter (1993). As such, she argues, it does not exist "as a property of either the individual or her culture" (p. 109). A dialogic theory of learning, however, attends to changes in both, treating them as concomitant sides of a single transaction. To study either side in isolation, as occurs when one applies a view of learning as strictly acquisition or participation inevitably produces a distorted picture of the full unfolding process. Focusing on participants' voices (and the voices within their voices), on the other hand, offers a new and powerful framework for analyzing learning, one that allows for an appreciation of changes taking place both within the individual and the social environment.

Studying Learning as Discursive and Dialogic

In a panel presented at the last CSCL conference, Scardamalia (1997) described three approaches being considered as a means of documenting "knowledge building" (Scardamalia & Bereiter, 1996) on the part of students working in Knowledge Forum. One approach was to simply report usage data (number of times read, number of times referenced) for notes in the system. A second was to compare student-generated text to that produced by a content expert using a statistical textual analysis technique (Landauer, Foltz, & Laham, 1998). Finally, Scardamalia proposed analyzing the content of the students' notes for evidence that the students considered their contributions "improvable."

Bakhtin's notion of dialogicality provides an alternative means for conceptualizing (and making claims about) knowledge building. If knowledge is a "boundary object" as Hicks (1996a) suggested and understanding occurs in the places where "two or more voices come into contact" (in the words of Wertsch and Smolka, 1993), then knowledge building should be analyzable as a property of the student-generated texts themselves.

Bakhtin advocated a unit of analysis based on *utterances* (Wertsch, 1991, 1998). The utterance is the locus whereby we "appropriate the words of others and populate them with [our] own intentions" (Wertsch, 1998, p. 78, quoting Bakhtin). Bakhtin (1986) wrote, "An absolutely understood and completed sentence, if it is a sentence and not an utterance comprised of one sentence, cannot evoke a responsive reaction: it is

comprehensible, but it is still not all." As a consequence, Wertsch (1998) specified that utterances are not analyzable in isolation but must be studied instead with reference to the culturally-supplied mediational structures of which they are instantiations. As mentioned earlier in the description of dialogicality, Bakhtin distinguished between "two patternings of utterances" (Wertsch, 1998, p. 74): *social languages* and *speech genres*. The former allows for a classification of utterances on the basis of "particular groups of speakers" (Wertsch, 1998, p. 76), while the latter categorizes utterances on the basis of the settings within which the speech is produced .

In describing social languages, Wertsch (1998) pointed toward Bakhtin's description of "professional, social, generational, and gender 'stratifications' of language" (p. 76). Studies of how learners appropriate particular social languages, such as the specialized languages of science abound (e.g., Ballenger, 1997; Leander & Brown, 1999; Lemke, 1993; Rosebery, Warren, & Conant, 1992). An example perhaps more familiar to this community is Roschelle's (1996) study of the appropriation of the technical language of physics by two students. One aspect of knowledge building, therefore, that could be studied within the framework of dialogicality would be the appropriation of particular social languages within the texts generated by students, not only noticing the occurrence of special terminology, but also tracing its ontogenesis as was done in the Roschelle (1996) study.

Bakhtin (1986) described speech genres in this way:

Speech genres organize our speech in almost the same way as grammatical (syntactical) forms do. We learn to cast our speech in generic forms and, when hearing others' speech, we guess its genre from the first words; we predict a certain length (that is, the approximate length of the speech whole) and a certain compositional structure; we foresee the end; that is, from the very beginning we have a sense of the speech whole, which is only later differentiated during the speech process. (p. 87; quoted in Wertsch, 1998)

Classroom discourse has been extensively studied as a special form of speech genre. There have been, for example, numerous studies of how teacher-organized talk provides opportunities for students to voice their understandings (e.g., Forman, Larreamendy-Joerns, Stein, & Brown, 1998; Forman, McCormick, & Danato, 1998; O'Connor & Michaels, 1993; Wells, 1996). Others have studied how student-produced speech and text become interanimated by the voices of others. Crook (1994), for example, described the delicate interweaving of voices that occurred when two students planned a narrative together at the computer. Wertsch and Toma (1995) analyzed videotape of fifth-grade students discussing a balance beam experiment, focusing in particular on examples of "indirect speech," that is, instances in which speakers incorporated text from prior talk. They cited evidence that "pupils . . . treat their utterances and those of others as thinking devices" (p. 171). In a series of more recent studies described by Wertsch (1998), college undergraduates were asked to prepare essays on the historical origins of the U.S. These essays were then analyzed to show how the texts demonstrated the voice of the agent

producing unique utterances within a culturally-provided genre, the genre of the class essay. These studies involve understanding not only the degree to which learners appropriate particular genres (i.e., classroom discourse, essay writing), but also the degree to which the genres themselves afford opportunities for the expression of the multivocal aspects of learner-produced utterances. This latter point is particularly relevant in the context of the less well-studied and emergent genres made possible by new mediating technologies such as the Knowledge Forum.

Toward a Theory of Learning in and through Collaboration

In his remarks in the closing panel at CSCL '97, Roy Pea (1997) posed the question, what would represent a 'breakthrough' in CSCL research? Given the current state of the field, however, it would be very difficult to formulate an answer to this question. Kuhn (1972) illuminated how a shift in paradigm requires an attendant shift in the theoretical underpinnings by which the research utilizing the new paradigm is motivated and understood. An even cursory review of recently published in this area, however, would suggest that a shared theoretical foundation has yet to be achieved. Absent such a common framework, it is impossible to define a set of agreed upon research questions, an obvious prerequisite to entertaining any discussions about 'breakthrough' or grand challenges.

A "literary" (Kozulin, 1996) theory of learning, based on Bakhtin's notion of dialogicality, is a particularly attractive candidate as an integrative theory of learning for work in CSCL. Its focus on the analysis of voice in texts is useful in a field in which much of what we have to study, like Scardamalia's Knowledge Forum notes, is text-based. Further, it does not require us to abandon the most valuable features of other socially-oriented theories of learning (e.g., conflict and accommodation, scaffolding, communities of practice) as these can be easily assimilated within a dialogic theory. This flexibility highlights the reflexive nature of the theory-not only does it seek to give an account of the multivocal nature of text, it is itself a theory that allows for the expression of multiple voices. It is, in short, just the right kind of theory for a polyphonous area of research such as CSCL.

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Footnotes

(1) I cannot hope to do justice to the extensive corpus of writing on and by Bakhtin here and I encourage the interested reader to pursue these issues in greater depth in one or more of the available translations of his work (e.g., Bakhtin, 1981, 1984, 1986; Voloshinov, 1973), biographies (Clark & Holquist, 1984; Morson & Emerson, 1990), and

related commentaries (cf., Hicks, 1996a, 1996b; Holquist, 1990; Kozulin, 1996; Wertsch, 1991, 1998).

(2) But see Hanks (1995) on the "crisis of text" in law.

(3) This is one of the "disputed texts" assumed by many translators and commentators (e.g., Clark & Holquist, 1989; Wertsch, 1998) to have been actually authored by Bakhtin.

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