Reading: Beyond Cognitive Skills to Enactment in Sociocultural Contexts

In *Cognitive development and learning in instructional contexts*, Byrnes (2001) lays out a connectionist view of literacy, drawing primarily upon the model of Seidenberg and McClelland (1989). This model conceptualizes reading as the product of the interaction of four processors—the orthographic (visual symbols), meaning (word meanings), phonological (graphophonemic), and context (knowledge of language pragmatics, semantics, syntax). These processors work as a complex feedback loop, with each discrete skill playing a role in the overall act of reading for the individual. And it is important to emphasize that it is for the *individual*. This model of literacy does account for the important role that skills such as phonemic awareness, phonics, and schema activation have been shown to play in fluent reading. However, I question whether the connectionist model leaves out essential components of reading, because becoming literate is "transpersonal (a distributed phenomenon, not simply something residing within a single head" (Erickson, 1996, p. 29). Many in the field of literacy, myself included, would consider the connections model to be a limited one, as it constructs reading as an act of cognition, or a "complex collection of skills" which reside within the individual alone. It is a view that Gee has referred to as a "traditional view of literacy":

> "[T]he traditional view of literacy as the ability to read and write rips literacy out of its ociocultural contexts and treats it as an asocial cognitive skill with little or nothing to do with human relationships. It cloaks literacy's connections to power, to social identity, and to ideologies" (Gee, 1996, p. 46).

The traditional view of literacy that Byrnes lays out in his text conceptualizes literacy as not only residing within the individual, but also accomplished by the individual, for the purposes of the individual. This view of literacy is inadequate when viewed through the lens of sociocultural theories of learning and teaching, sociocultural theories which view literacy as only

possible for the individual because it is embedded in and enacted within a sociocultural context—the social, cultural, historical, and political context. Indeed, without a particular context there would be no literacy, as "[r]eading does not consist merely of decoding the written word or language; rather it is preceded by and intertwined with knowledge of the world" (Freire & Macedo, 1987, p. 29). Literacy is a cultural artifact which may be explained best as an iterative and enacted sociocultural process: if social interactions in a given context give rise to a need for literacy, it will develop; literacy is then enacted within the sociocultural context, in order to fulfill social and personal needs; and enacted literacy results in the potential to change the literate individual and the larger context. To reduce literacy to discrete skills residing within the individual, as the connectionist model has done, is to ignore literacy's embeddedness within a context that gives rise to it, shapes it, and is shaped by it in return. To isolate literacy within an individual ignores the fact that even reading alone is a social interaction, as the text itself is a cultural artifact (Vygotsky, 1996). Reading is an interaction with a text, a form of engaging in a dialogue with another (Bakhtin, 1981).

Sociocultural views of literacy emphasize that literacy knowledge, skills, and applications are the interwoven functions of social interactions and the construction of shared meaning (Vygotsky, 1996). Even the written texts themselves are shaped by the sociocultural context:

> "[T]exts and the various ways of reading them… are the social and historical inventions of groups of people. One always and only learns to interpret texts…in certain ways through having access to, and ample experience in, social settings where texts of that type are read in those ways. One is socialized or enculturated into a certain social practice" (Gee, 1996, pp. 44-5).

The transmission of culture through texts is key to enculturation into a literate society. Seen in this light, the definition of "text" should encompass many forms of sociocultural

artifacts, such as books, letters, legal documents, Internet text, and even rap song lyrics. Such texts allow a culture to form a "prism through which members… see the world and create shared meanings" (Bowman 1990). This idea of literacy as access to shared cultural meanings moves beyond the connectionist model's limited view of creating meaning from text through cognitive processors.

Meaning does not reside in the text alone. Seen from Rosenblatt's transactional theory, meaning is the result of the dynamic interaction among the reader, the text, and the context; the reader is actively constructing meaning (1994). The connectionist model of reading that Byrnes relies upon also sees the reader as active, but in an individual and cognitive sense. From a sociocultural perspective, the reader is able to construct meaning only by drawing on his/her situated experiences in a sociocultural context. Our interpretation of text is possible through the filter of everything that an individual is and knows, and these are the embedded in social interactions and systems. The meaning of a given text does not reside within the text itself, but is constructed by the reader as he/she interacts with the text. Gee articulates it thus:

> "Literacy is something different when a Los Angeles street gang member writes a piece of graffiti on an urban wall to memorialize a recent event than when an elementary teacher writes a note in her journal about one of her students… Furthermore, 'ways with printed words' within such sociocultural practices are always integrally and inextricably integrated with ways of talking, thinking, believing, knowing, acting, interacting, valuing, and feeling" (1996, pp. 30-31)

Social practices shape not only the texts, but also the literacy practices. These practices and related literacy behaviors vary greatly among cultures and a student's success in school may be partly a result of the match between home and school literacy events (Bernstein, 1960, 1971, 1972; Heath, 1983). In the field of education, much attention has been turned to the literacy achievement gap that exists between those students for whom there is a close match of home and

school literacy, and those for whom this is not the case. In chapter 6 of *Cognitive development and learning* (Byrnes, 2001), the author gives only *one paragraph* to cultural differences in literacy; however, this is limited to differences in achievement according to ethnicity. It is also addressed in terms of quantitative differences rather than qualitative differences in literacy. This suggests a deficit model for minority literacy practices, which Byrnes discusses in chapter 12 as a "contextual view model" (pp. 323-4). While Byrnes does give limited discussion to different cultural contexts for literacy in chapter 12, he clearly does not foreground this in his discussion of beginning reading, instead drawing heavily on the connectionist model of Seidenberg and McClelland (1989).

My criticisms of this model thus far are not to say that I don't see its importance for explaining the cognitive processes of reading; I do, but I want to expand it to include not only the four cognitive processors identified by Seidenberg and McClelland, but also critical sociocultural factors. Perhaps the answer is to situate the connectionist model *within* a sociocultural framework. I'm envisioning two concentric circles drawn around the connectionist model—the first one labeled "Immediate Social Context" and the second one "Larger Sociocultural Context." At present I am reading Sribner & Cole's *The psychology of literacy* (1999), and am fascinated to see how they are working within a psycho-social framework (not sure at this point what the actual term for this framework is) to examine the literacy of the Vai. Scribner & Cole do not deny the importance of cognition operating within the individual, but also view the importance of the individual as embedded within a sociocultural context, enacting literacy as social practice. I view reading as a social practice, even when enacted by an individual reading silently and alone, for "[n]either artifacts nor actions exist in isolation. Rather, they are interwoven with each other and with the social worlds of the human beings they mediate to form vast networks of

interconnections" (Cole, 1996, p. 120). It is this interconnected nature of literacy that is so fascinating to me. It is the pursuit of its understanding that led me to graduate studies in the first place.

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