NEW TRENDS IN AN HISTORICAL PERSPECTIVE: CHILDREN AS INVENTORS OF LANGUAGE AND LITERACY

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Much of what comes around in education, sometimes in new bottles, sometimes in old, has indeed been here before. Rarely do ideas present themselves, nor are they received in exactly the same way, however, as when they last visited. Though history does not literally repeat itself, it certainly offers up analogies for the present—and because of that, lessons to be learned. These are lessons that we hope will be valued, generative, and productive for the “reflective practitioner,” for whom, as Bill Teale has noted, *Language Arts* is published.

Therefore, this column will explore contemporary trends from an historical perspective—ideas that have helped to shape where we are pedagogically and theoretically in language arts education. We’ll examine how the ideas have changed, what may be genuinely new, and what may be understood better now than in earlier years. Each column will be penned either by me or by others who have reflected on trends in the context of their historical antecedents.

In this inaugural column my theme is admittedly and apologetically rather ambitious; several of the issues touched upon, however, rightfully deserve and will receive more considered treatment in later columns. This time around I explore one of the most prevalent and perhaps powerful ideas about children’s learning and language: their shaping, transformation, and *invention* of what is “out there”—as opposed to what is “out there” being directly inscribed on their brains. Though children do not “invent” in the purest sense, the metaphor works because it properly focuses attention on the *process* of how information that is “out there” is transformed. This transformation can lead to unique as well as strikingly equivalent formulations across children. Scholars study it because it continually yields insights into what may “naturally” unfold and what requires input from the culture—specifically, from educators.

Over the centuries many have championed the idea of children “inventing” their reality, language, and literacy. Moreover, the *sequence* in which children’s inventions appear to unfold is markedly similar to the sequence in which these processes developed historically. For this reason the “invention” metaphor is perhaps expressed best through the somewhat intimidating notion of “ontogeny recapitulates phylogeny,” a biological phenomenon that has entralled scholars since the early nineteenth century. In human beings this refers simply to the notion that the development of the individual child (ontogeny) is similar to the development of humankind (phylogeny) over the eons. The notion is at least as old as the observations of Herbert Spencer (1861) and Edward Cope (1887): “If we look at representation by drawing or sculpture, we find that the efforts of the earliest races of which we have any knowledge were quite similar to those which the untaught hand of infancy traces on its slate . . .” (p. 153). It is also as contemporary as Yetta Goodman’s observation that “There are developmental moments in the literacy development of the individual that parallel in complex ways the development of literacy for the human race” (Goodman, 1990, p. 118). In recent years researchers have been particularly struck by parallels between the development, or invention, of literacy in young children and the historical development of literacy.

Although the earlier work that considered the
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development and the education of children did not use the "invention" metaphor directly, it is clear that children were conceptualized not as mere imitators or copiers of reality but as creators in their own right. Guillet (cited in Thorndike, 1919) observed that "Since it is the order of nature that the new organism should pass through certain developmental stages, it behooves us to study nature's plan and seek rather to aid than to thwart it... The parallelism of phylogeny and ontogeny enforces the argument in favor of natural development... forcing is unnatural..." (pp. 104–105). By studying "natural development" then, we may discern those developmental stages to which we might appropriately respond and better understand than when we are "forcing" developmentally "unnatural" objectives. And once one buys into the notion of "developmental stages," it is almost inevitable that the exploration of historical/ontogenetic parallels will occur.

In 1923 Bovet suggested that there are "relationships between the drawings of children and those of primitive peoples, between the grammar of baby-talk and that of certain well-worn idioms, between the dreams of the child's imagination and myths and folklore, and between so many other varied manifestations of mental activity in the beginnings of individual men and of mankind as a whole" (cited in Gould, 1977, p. 136). As Bovet's observation reveals, the concern in earlier years unfortunately equated non-literate or "savage" societies with little children, although the thrust of the idea later took on a more benign and informative cast. Yetta Goodman's observation, however, properly juxtaposed the issue: By examining these parallels and the historical development of how humankind invented language and literacy, we gain insight into children's inventions, and we appreciate more keenly the processes in which they engage and respect more profoundly their efforts. The situation with written language is not as powerful as with the broad-
er domain of biological parallels, of course—our genes do not guarantee that we will learn to read and write. Rather, these parallels underscore the respect for what children accomplish on the one hand and of what they may be capable on the other.

Children's Inventions, Cultural Inventions

The work of Piaget underscored the realization that children really understand only what they have invented for themselves (1947/1973; 1971; 1977). There are three domains in which the invention metaphor can be explored in the context of the "ontogeny recapitulating phylogeny" notion: first, the idea of a cultural recapitulation in the development of children; second, a recapitulation in oral language; and third, a recapitulation in written language. After a brief nod at the first two, I focus on written language, exploring the parallels in terms of the nature and the effects of written language.

In the late nineteenth and early twentieth centuries the idea of "natural development" unfolding in a recapitulative sense led to the "cultural epochs" curricular trend in education. This buzz-term referred to a "scope and sequence" in the elementary grades that paralleled significant developments in the history of civilization. Children would study early agriculture and weaving, for example, before studying the Greeks, then the Romans, and so on. Although he believed the curriculum theorists took "ontogeny recapitulating phylogeny" too literally, John Dewey offered the philosophical justification for the curriculum recapitulating in some fashion the historical picture: "The race-experience... is embodied in that thing we call the Curriculum" (cited in Dworkin, 1959, p. 30). Dewey engaged the "invention" metaphor almost literally when he talked about how children may "follow the progress of mankind in history" and in so doing re-invent processes that humankind needed to invent: "Education... is that reconstruction or reorganization of experience..." (Dewey, 1916/1961, p. 76).

Whereas Chukovsky (1925/1971) stated the case for oral language development by noting how the young child "miraculously" masters early forms of language "which were used by his very distant ancestors in building the language" (p. 5), Bissex aptly stated the case for written language: "Some of the things children do in writing
and reading may appear less strange to us if we are aware of systems used by other cultures, systems that children are free to reinvent. From this perspective, cross-cultural and historical studies of writing and reading may be significant for understanding children’s written language behavior” (1981, p. 204, emphasis added).

We might begin with the “text” context out of which reading and writing emerge: In some fashion, narratives are a part of the early experiences of children across all cultures. Over the years the role of oral narrative in the development of humankind and of individuals has been extensively studied, most recently and engagingly by Egan (1987, in press). The rhythm, rhyme, and cadence of verse (and more recently, predictable text) supports the memory for the narrative; and historically, this memory supported the early “readings” of written language, which in many instances simply “reminded” the reader of what he already knew it said. As Egan (1987) observed, “The story form is one of the true cultural universals—everyone, everywhere has told and enjoyed stories. They are one of the greatest cultural inventions for catching and fixing meaning” (p. 455). So they are re-invented and seem to function for children as well. In “reading” a favorite storybook or nursery rhyme, young children require lots of contextual support as well as good oral memory of what the text “says.” Out of such experiences evolve many of the intuitions about print-to-sound correspondences. Words will be learned first as “logographs” or ideographs, later as alphabetic sequences. This is not to say that narratives are an absolute necessity but that, historically and ontogenetically, they do provide a more familiar and facilitative context for repetition and for the rhythms of oral language.

In recent years researchers have traced the differentiation of writing from drawing, writing from writing, and the “phonetization” of writing—when children move to establishing a correspondence between speech and print (e.g., Clay, 1982; Ferreiro, 1985, 1986; Ferreiro & Teberosky, 1982). Although children must be in the presence of a writing system in order to re-invent the speech/print correspondence, there are “universal rules that all children seem to conceptualize in similar ways at particular developmental moments in their personal history” (Goodman, 1990, pp. 118–119). The early drawing and scribbling of children reflect the beginnings of the development of written language from pictures and, later on, the highly stylized drawings that are much like ideographs. A child’s name may be the catalyst for the child’s dawning conception that there is some type of systematic relationship between speech and print (Ferreiro & Teberosky, 1982), just as names were in the historical evolution of writing from the “ideographic” stage to the syllabic stage (Golb, 1963) and eventually to the alphabetic stage. In fact, in Classical Greek the word that was used to refer to a word was onoma—“name” (Havelock, 1985). Awareness of their own name in print can start children on the long road to objectifying first themselves, then the world, at the same time as such awareness begins to objectify the language.

As a considerable body of research has shown, a seminal event in children’s invention of the relationship between oral and written language is the phenomenon of phonological awareness—the realization that words are comprised of sounds (Bradley & Bryant, 1985; Stanovich, 1988). In their invented spellings children reveal this understanding when they have both vowel and consonants represented; in their reading, this understanding is reflected in their more rapid acquisition of a sight word vocabulary (Henderson, 1981). This is the benchmark of alphabetic as opposed to semi-alphabetic writing systems, and as is discussed later, it has the potential to effect a qualitatively different way of thinking.

As Bissex (1980) observed, children’s inventions become “increasingly shaped to cultural forms” (p. 203). For the English language specifically, there is a striking similarity between the historical development of the written language and children’s invention of the written form. Children must continue to refine their word knowledge in response to the more abstract nature of the spelling system of English. They begin much as the Anglo Saxons did, matching up letters with sounds in a left-to-right fashion. Later, in response to spelling patterns that are not so straightforward and which historically came later to English, they adjust their knowledge accordingly. In the development of English spelling there was considerable influence from classical Greek and Latin which changed the way that literally thousands of words were spelled. For example, verdit changed to verdic from the Latin dicere; dette changed to debt from the Latin dicere.
debitum; doubt changed to doubt from the Latin dubitare; bankrupt changed to bankrupt from the Latin ruptus (“to break”); scissors changed to scissors from the Latin root cid- (“to cut”). These more abstract layers of information, of course, must also be accommodated in children’s conceptualizations. It happened later in the development of written English; it happens later in the development of children.

The effects of these spelling changes for meaning as opposed to sound are evident in the way derivationally-related words are represented (e.g., compete-competition; normal-normality; autumn-autumnal; posthumous-humanity). Although the pronunciation of the italicized letters changes, the spelling does not because the words are related in meaning. This is a feature strongly developed in English spelling, one that has moved the correspondence between letters and sounds “beyond” simply an alphabetic one. The historical catalyst for this change—which also, by the way, captures the development in children from beginning to more mature reading—was insightfully described by Scruggs (1974): “As medieval man ceased pointing to the words with his bookmark as he pronounced them aloud, and turned to silent reading for personal edification and satisfaction, so his attention was concentrated more on the written word as a unit than on the speech sounds represented by its constituent letters. The connotations of the written as opposed to the spoken word grew...” (p. 56).

Thus far we have examined the parallels between humankind’s and children’s invention of the nature of written language. What are the parallels in terms of the effects of a written language knowledge on thinking? The historical equivalent of “phonological awareness” was the Greeks’ development of a true alphabet in which all vowels and consonants were represented. As we’ve seen, this is a seminal event for children. As far as humankind is concerned, some scholars have referred to the Greeks’ invention as the most significant technological advance in the last 2500 years. Up to this point—just as with children—“Narrative along with rhythm had been the necessary means of supporting the oral memory and was now no longer needed” (Havelock, 1985).

Havelock (1976, 1982, 1985) examined the explosion of culture in classical Greece and noted that it followed upon the Greeks’ invention of a purely alphabetic writing system. The discovery of the alphabetic principle was probably not the sole cause of the impressive cultural revolution in classical Greece, but it interacted with other factors in significant ways so that the revolution may not have been as wide-ranging without it.

Havelock (1982) stated that the Greeks “‘did not just invent an alphabet; they invented literacy and the literate basis of modern thought’” (p. 82).

Because speech was now matched to writing in a straightforward, more easily understood fashion than in earlier writing systems, literacy could be acquired by most individuals in childhood. The number of written works and their availability increased, leading to “an immense expansion of knowledge available to the human mind” and most important, the alphabet “made possible the production of novel or unexpected statement, previously unfamiliar and even ‘unthought’” (pp. 87-88). The long-range consequences of this “were new inventible ways of speaking about human life, and therefore of thinking about it, which became preservable and extendable in the alphabetic literatures of Europe” (p. 88).

In those societies in which alphabetic literacy has advanced, there are definitely different ways of organizing experience, technology, and thinking. Are children similarly affected? This question is fraught with controversy, although there is little disagreement that literacy can lead to different kinds of awarenesses perhaps unavailable to nonliterate. Social historians and ethnographers have been careful to point out the pitfalls of assuming that literacy conveys a qualitatively better mode of abstract thinking. For example, the early work of Luria (1976), the later work of Scribner and Cole (1981), and Egan’s analyses of the more abstract properties of oral narratives in nonliterate cultures (1987) all serve to remind us of the pitfalls of “literocentrism.”

In societies where alphabetic literacy defines the norm, however, the degree and type of liter-
acy afforded by an alphabetic writing system can be a major contributor to children’s inventions of their reality and their movement beyond themselves toward achieving when appropriate a more objective or “reflective” stance: “This movement from ‘action’ to ‘reflection’ may create, in a more formal sense, the argumentative out of the narrative form” (Templeton, 1986, p. 302).

But there is another type of awareness—of transformation—that occurs with the invention of the alphabet. It moves beyond simply an objective awareness of oneself to the awareness of one’s ability to change what is “out there” in a more consequential sense (Freire, 1970). Young children transform the world tacitly as they re-invent it; older children (and adults) may be aware that they are empowered to transform it.

For humankind, literacy has offered this potential; for individuals, literacy offers this potential. The tragedy of history and of schooling, however, is that all too often individuals do not realize they can be so empowered. It is as true for children as it has been true historically for humankind.

Implications

The convergence of work in a number of disciplines has yielded insight into the order and the complexity of cultural inventions—and thus, through the engaging recapitulative parallel we have touched upon—into the order and the complexity of children’s inventions of their world, specifically language and literacy. By examining the process of invention in children and viewing it through a recapitulative historical lens, we most obviously reaffirm our respect for and fascination with children. In the context of the theme of this issue, we realize the potential of children to invent and thus to revel in language and literacy.

We are delighted and often surprised with this potential but also reminded of how all too often we inadvertently take for granted what children have invented—an example being the alphabetic principle which took humankind some 30,000 years to invent.

While valuing what orality can offer that literacy cannot, we also recognize that once the alphabetic principle is invented and applied, literacy does affect children’s consciousness and their sense of themselves in definite ways. In the information processing/technological world in which we live, it allows them when necessary to assume a “decontextualized” stance and not only to participate in but also to transform in consequential ways the domains Bill Teale presented in his description of the theme of the present issue: “words, books, speeches, poetry, philosophical and scientific discussions, critical inquiry, conversations, other uses of language, and, ultimately, their own lives.”

Stephen Gould (1977) suggested that, in the early twentieth century, recapitulation “became the strongest argument for child-centered education . . . much of the little that is good about modern American education follows an ideal that triumphed with the strong aid of recapitulation” (p. 155). Cross-culturally, more that is better in language arts education can continue to unfold with our discovery of how children’s oral and written language “inventions” recapitulate the complexity and the utility of these inventions in an historical perspective.

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CALL FOR AWARD NOMINATIONS

The National Council of Teachers of English announces a call for nominations for the *Orbis Pictus Award for Outstanding Nonfiction for Children*. The first competition was open to books published in 1989, and the winner was *The Great Little Madison*, a biography of U.S. President James Madison, by Jean Fritz. Also named were two Orbis Pictus Honor Books: *The Great American Gold Rush* by Rhoda Blumberg and *The News about Dinosaurs* by Patricia Lauber. Nominations for the outstanding children’s nonfiction book published in 1990 must include bibliographic information, reasons for the book’s nomination, and the name, address, and phone of the nominator. To receive additional information and nomination forms contact: Dr. Sylvia Vardell, University of Texas at Arlington, Teacher Education, Box 19227, Arlington, Texas 76019-0227, Phone 817-794-5058.

Nominations must be received by January 31, 1991.

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