Some children become capable readers and writers before ever attending school and without exposure to formal instruction. This phenomenon—sometimes referred to as natural literacy development—is not, in the strictest sense, natural; as the adult presents much of the literacy environment to the child in a socialized, mediated form, teaching is also involved. The implications for literacy development in early childhood are that a child is not given a preexisting literacy environment, but is actively involved in creating his or her literacy environment. The child's initiations, temperament, questions, and other actions or qualities actually affect the nature and frequency of literacy mediated activities occurring in the child's environment. To determine what role the child's environment plays on literacy development, future research should carefully document (1) what information is in the environment for the child to assimilate, (2) how finely tuned the environment is to the child's development, and (3) what strategies the child develops over time for dealing with written language. (HOD)
Toward a Theory of How Children Learn to Read and Write 'Naturally': An Update

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Some children become capable readers and writers before ever attending school and without exposure to formal instruction. In a previous paper (Teale, 1982) I concluded that this phenomenon, sometimes referred to as natural literacy development, was not, in the strictest sense, natural. The reasons for that conclusion are as follows.

**Toward a Theory**

Although becoming literate before schooling does occur for the vast majority of early reader-writers in the course of normal daily interactions in the home and community and with no formal instruction, the process can profitably be described as involving both learning (on the part of the child) and teaching (on the part of the parent(s) or other significant literate persons in the child's environment). However, the teaching that occurs in homes looks nothing like what is typically thought of as teaching in classrooms. Yes, there is some of what may be termed 'direct instruction': "This is a D," "That says fish," teaching children to name the letters of the alphabet. But most of the teaching occurs as an aspect of the social interaction between parent and child in activities typical of the home or community which are mediated by literacy.

"Thick descriptions" (Geertz, 1973) of such activities (using the T.V. Guide to select a program, writing a letter to Grandma, constructing a shopping list, setting up a lemonade stand, storybook time, and so forth) show us that parents scaffold the events for the children, giving as much support as is needed so that the child can accomplish the writing of the letter to Grandma or the reading of the storybook (See Scollon & Scollon, 1981; Hoffman, 1982; Teale, 1982; Snow, 1983 and Baghban, in press, among others, for examples). Sometimes the help is a routine; at
other times, a response frame. In any case, the event itself is accomplished interactionally, and the speech which surrounds the actual reading or writing is a key feature of the process.

It is quite apparent also, however, that the mother is not writing the letter for the child, nor is the storybook merely getting read to the child. Rather, the child, as well as the adult, is an active participant in the events. As the child becomes more adept, he or she takes over more and more of the interaction until what was originally an interpsychological activity (between people) becomes an activity that is conducted intrapsychologically--the child can read the book or write the letter on her/his own.

In the 1982 paper I invoked the Russian term obuchenie as a way of capturing the essence of the development of early reading and writing in children. Obuchenie is a concept which means teaching and learning. The two aspects, teaching and learning, are seen as inseparable components in a dialectical interplay. As Andrew Sutton (1980) has said, "It should be recalled that the verb 'to develop' is transitive as well as intransitive...Not only do children develop, but we adults develop them" (p. 170). Hence, the child is active in the enterprise of learning to read and write before schooling, but the process is not entirely endogenous; the adult 'presents' much of the literacy environment to the child in a socialized, mediated form and thus teaching is also involved.

For the remainder of this paper I should like to clarify certain points made on the topic of preschool literacy development and to raise some additional issues which I believe must be resolved if we are to build an adequate theory of how young children come to be able to read and write before they are formally instructed in reading and writing.
Also, I shall conclude by considering implications these ideas have for conducting reading and writing instruction in school or preschool settings.

**Natural versus "Natural"**

I take the position that early reader-writers like those children described by Durkin (1966), Clark (1976), Hoffman (1982), Lass (1982; 1983), Baghban (in press) and others betoken "natural" literacy development rather than natural literacy development. The quotation marks around the word natural are significant, for they remind us that these children's accomplishments do not stem from nature per se nor can they be accounted for by innate abilities (i.e., abilities existing or present by nature). However, the literacy development of such children is natural in the sense that it "comes easily" to them, or, as the *Oxford English Dictionary* puts it, "arises or results from, (is) fully consonant with, the circumstances" in which they find themselves. Thus, the quotation marks: to show that in one respect describing such development as natural is quite fitting (these children do learn to read and write without apparent contrivance or manipulation) but at the same time to remind us that we cannot accept other implications which the term brings with it.

The distinction between natural literacy development and "natural" literacy development might be viewed as so much ado about nothing or as just plain picky, picky, picky; however, recent interpretations which equate "natural" with "direct instructional models of language teaching and a behavioral model of learning" (Harste, Burke, and Woodward, 1983) and current debates among language acquisition researchers on the part which "input" plays in learning to talk (e.g., compare Shatz, 1982 and Snow, 1979) suggest that this is an important issue for us to address.
The work of David Feldman and his colleagues (Feldman, 1980) can help to elucidate the differences between natural learning and "natural" learning. Feldman proposes the following continuum for describing cognitive achievements.

| Universal | Cultural | Discipline-Based | Idiosyncratic | Unique |

On the one end of the continuum are universal achievements, those which are "The common achievements eventually attained by all individuals in all cultures..." (Feldman, 1980, p. 6). Conservation is one example of a universal achievement.

Universals may be viewed as the basic concepts of intelligence. Because the empirical work of Piaget focused on describing the development of such concepts, his is the appropriate name to raise at this point in the discussion. Piaget contended that the achievement of universals was spontaneous; viz., given opportunities to interact with the environment children's intrinsic tendencies enable them to construct this knowledge (Piaget, 1959). Furthermore, and of extreme importance, it does not matter what environment (i.e., when or in what culture or physical location the children are raised); the achievement of universals occurs under conditions so varied that we must conclude that they require no special environment to develop.

However, as Feldman also points out, much of what we learn is not universal but relates to the specific culture, society, and conditions in which we find ourselves. Non-universal achievements--the types of knowledge which not every individual will acquire--range from the cultural (knowledge that all individuals within a given culture are expected to acquire) to the unique--knowledge that represents "a form of organization
within a domain that has never before been accomplished in quite the same way" (p. 11). There is not space here to describe the whole of Feldman's continuum. The key distinction for our purposes is the one between universal achievement and all levels of achievement beyond universals.

Literacy is an example of a cultural achievement in a country like the United States. That is to say, in our society it is expected that all individuals will, at some level, be able to read and write (while there is not the same societal expectation that everyone will be able to play chess or make violins). However, unlike universals, literacy is not something that everyone does achieve regardless of the environment in which he or she develops.

Universal achievements, then, can be viewed as natural learning because they require no special environment to develop. Natural learning is spontaneously achieved: children possess intrinsic tendencies to construct their knowledge of universals.

Non-universal knowledge--such as literacy--is not natural learning because it does require a special environment. Often parents of early reader-writers report that their children "just picked it (literacy) up," but now that we are beginning to get detailed descriptions of the social situations in which such children are raised, we can see that these are special environments.

The environment does provide children with "some form of instruction" which Feldman claims is necessary for all achievements beyond universals. However, it is important to emphasize that this instruction need not be characterized by formal teaching of reading and writing. Thus, Feldman's theory helps us see why "natural" literacy development can be adopted as a way of describing how these early reader-writers become literate.
The Role of the Child; The Role of the Environment

Having proposed that teaching is intimately involved in a preschool child's becoming literate, I wish to emphasize that I am not, however, propounding a behavioristic theory of "natural" literacy development. Rather, the model reflected in the concept of obuchenie is a dialectical one. Engels (1940) pointed out the "transforming reaction of man on nature." Vygotsky (1978) incorporated this notion into his theories, admitting that although the environment influences humans (and that includes children), humans, in turn, affect the environment and create through changes in the environment, new conditions of existence. The implications for literacy development in early childhood are that there is not simply a literacy environment 'out there' which is presented to the child. Instead, the child is actively involved in creating the literacy environment. The initiations, temperament, questions, and other actions/qualities of the child actually affect the nature and frequency of activities mediated by literacy which occur in the child's environment. Thus, an 'outside-in' behavioristic theory of "natural" literacy development is patently inadequate.

So what is the role of the environment, given that the imprint-on-a-blank-slate notions of S-R theory have been rejected? There seem to be two general positions left, both of which view the child as an active participant in the process of literacy development.

One, a strong position, is that social interactions directly provide the information necessary for literacy acquisition. In other words, there would be direct structural relations between the social environment and literacy strategies. The issue of how finely tuned the environment is to the child becomes critical. This strong position would place the
weight of the course of development on the nature of the input to the
child. Thus, in order for social interactions directly to provide all the
necessary information, there would have to be an ordered set of regularly
changing data being presented to the child.

The weaker position would contend that children operate selectively
on the data available to them. Here the role of the child's internal
control process is expanded.

There is at present no clear-cut answer as to which of these posi-
tions provides the better theory of "natural" literacy development.
However, it seems that an informative direction for future research on
young children's literacy development to go would be one of document-
ing carefully in longitudinal studies on individual children:

(1) what information there is in the environment for the child to
assimilate,

(2) how finely tuned the environment is to the child's development,
and

(3) what strategies at various points in time the child develops for
dealing with written language.

The work of Emilia Ferreiro and her colleagues (Ferreiro, 1982;
Ferreiro & Gomez Palacio, 1982; Ferreiro & Teberosky, 1982) and the re-
search on invented spelling (Read, 1971; Henderson & Beers, 1981), for
example, suggest that the development of literacy is not free of media-
tion by the internal properties of the child. But evidence previously
discussed also suggests that formatted literacy encounters provide cru-
cial framing that helps children discover how to use written language by
cueing them into the procedures, conventions and strategies of reading
and writing.
How much of the full complexity of literacy is available to children in social interactions? Does the child internalize certain aspects of literacy practice from the environment and construct others by him/herself? Only more detailed attention to these issues can tell us. Currently, the available data cannot answer these questions.

**Guided Reinvention**

Andrew Lock (1980) has described first language acquisition in the following way:

By establishing meaningful communication between themselves, the mother and the child open up "a whole new universe of possibilities and potentialities" some of which comprise the "problem" the child has to surmount in progressing towards a fully fledged language. The mother is as much involved in the surmounting of them as is the child...Language emerges through a process of guided reinvention. The mother is the guide and the child the inventor. (p. 36)

Lock's notion of guided reinvention may provide a suitable description for helping resolve the issues just outlined, because it seems a fitting way of describing "natural" literacy development also. The child is not responsible for learning the strategies of reading and writing all by his/her own devices. Rather, the process is essentially one of social construction in which the child and the parent are both actively involved. The task for us now is to document more precisely the characteristics of the guiding and the nature of the reinvention.
References

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