Differing views on how meaning in a literacy event is formed have a large impact upon literacy instruction and language research. Teaching and research are often conducted without considering who is in charge of meanings. Yet the answer to this question establishes an interpretive frame that creates the questions, methods, and findings in language research. This interpretive frame is a perspective, a system of beliefs and assumptions about language—a "paradigm." Three literacy paradigms have shaped the questions, methodology, and interpretations of reading comprehension research. In the transfer literacy paradigm, a text's fixed meaning is transferred to the reader's mind. Able readers are those who can absorb the greatest amount of text information. In the interactive literacy paradigm, the reader activates cognitive knowledge structures and language processes to interact with meanings fixed in the text by the author's language processes and cognitive structures. This paradigm is dominant in school literacy instruction and language research. Finally, the transactive literacy paradigm treats meaning in a social context. Reader, text, and context are dynamically created in the meaning. Since multiple contexts coexist, multiple meanings are created while reading. Each of these literacy paradigms represent a different way of thinking—linear, cyclical, and dynamic. A triadic dynamic, derived from the transactive literacy paradigm, organizes pragmatics, sign-systems, and social interaction (three primary symbols involved in literacy research) into a dynamic reflecting the focus of literacy research. (One chart is included, and 52 references are appended.)

(NE)
Literacy Paradigms

and

Language Research Methodology

Jamie Myers
Indiana University
Summer, 1988
Introduction

The concept of paradigms has become quite popular since its introduction into the philosophy of science community by Kuhn in 1962. I hesitate in using the word because its widespread use conjures up various interpretations. However, the ambiguous meaning of "paradigm" is a perfect example of the literacy problem that this paper addresses.

The primary purpose of language, as the story usually goes, is to communicate. Many people, from Edwin Newman to Humpty Dumpty, insist that successful communication requires words that have specific, exact, meanings. In schools, this view is reinforced whenever texts are used as repositories of specific knowledge that must be communicated to the student, then repeated correctly for assigning grades. In this situation, teachers approach the classroom reading of a text as a carefully sequenced set of questions or activity that will lead the student to the correct meaning. Personal interpretations are clearly shown as impossible to put on the text. In this "language as communication" view, "paradigm" should mean the same thing to everyone in any context. All one has to do is to look it up in the dictionary. I hate going to the dictionary. I refuse to include a dictionary definition in this paper!

I view language as creating worlds. Primarily we create our own perspective of the world using language, but we also symbolize possible worlds for others when we interact with them using language. Likewise they make new worlds possible for us to
create. We can never share these worlds entirely or exactly. We can only interpret someone else's interpretation of a word or material object (signs) we share. We do attach conventional meanings to both language and non-language signs, hence, have the impression of sharing identical symbols, a "reality." But these conventional meanings are also the continual product of creation, created and recreated in every language context to serve our meaning making purpose. Many of the conventional meanings seem so exact and specific because their meanings are used everyday in our social interactions which reinforce the conventional meanings. However, no matter how conventional the meaning of a sign may seem, it is also rich with possibilities, unique connections from our own experience, or new contextual interpretations, which when shared can lead to new conventions for symbolizing the world.

The way language generates new meanings for signs often seems to be different between oral and literate experiences. In carrying on a dialogue, if I bring up the word "paradigm," a whole set of possible meanings will be generated in the listeners based upon the context and purpose of the current discussion and upon prior contexts of "paradigm." In a dialogue, you can immediately, or shortly thereafter, interrupt and ask, "What do you mean by paradigm?" We talk back and forth for a while and kick the concept around, sharing our meanings by recontextualizing "paradigm" into our favorite examples. In our minds, we might even hear the voices of other people not
physically present use "paradigm" in a different way. What each of us in the dialogue will end up with is an entirely new and unique context for the word "paradigm." Some of this new meaning will be shared because of the common context created by our social interaction. Some of the meaning will each person's unique connections of previous contexts of "paradigm" that are now reinterpreted in the presentground context. But, we can never end a conversation with the same signs as we begin it; every sign has gained new contexts and more meaning potential. This gives us a new world and a new self at every moment. Meaning is never fixed.

It is not as easy to think about literacy events as having the same potential to generate new meanings every moment. Texts don't seem to talk back, or even better, we may not talk to the texts. We tend to think that texts have fixed meanings across contexts (time and space) and across readers. We have also created a unitary skill called reading ability that describes the level of each person's comprehension across different texts and contexts. We rarely treat the text-reader literacy event as open to new and unique interpretations in each unique context. Maybe as writers we believe that we are fixing our meanings in text to communicate an exact set of ideas to a vast and varied historical audience. We may not be very willing to let readers use our texts as interpretative playgrounds.

However, it is common sense that we never have the same interpretation on a second reading, that we are different kinds
of readers with different texts, that we often stop reading a
text when our purpose is met, that reading one text after another
makes even more meanings possible, and that we never share the
same interpretations with other readers. Each time a word like
"paradigm" is used in one text, it creates new possible meanings,
new signs, new contexts.

The ambiguity of "paradigm" focuses us on what may be the
central literacy question: Who is in charge of the meanings?
Others may state the central issue of literacy instruction and
research is how to teach everyone to be readers. But, underlying
that concern is the implicit assumption that everyone will read
texts in the correct way; this assumption is represented by the
question: How do you know if someone is literate? To know if
someone is literate, you must measure their literacy behavior.
To measure their literacy, you must design an assessment that
reflects the correct way to read a text, which is the same as
saying that a few literate people who design literacy tests are
in charge of the meanings. These people's definitions of
literacy as performance skill taught and measured, cover up the
underlying power given them by being in control of the meanings.
The teacher who asserts that the text means one, and only one
thing, is usually most upset that the students don't know how to
read.

Differing views on how the meaning in a literacy event have
a large impact upon literacy instruction and language research.
Often we teach and research without ever considering who is in
charge of the meanings. Yet, our answer to this question establishes an interpretive frame that creates our questions, methods, and findings. This interpretive frame is a perspective, a system of beliefs and assumptions about language, that might well be called a "paradigm". In our everyday use of language in social interactions, we seldom reflect upon how our literacy paradigm shapes our interpretations. If a system of language beliefs and assumptions is a "literacy paradigm," then I am calling for a paradigm crisis, even a paradigm revolution!

As this paper continues, I will sketch out three literacy paradigms. I'll illustrate how each of these literacy paradigms shapes the research done in reading comprehension. I'll attempt to connect my thoughts in semiotics, reading theory, language theory, literacy, philosophy of research, sociology, psychology, anthropology, sociopsycholinguistics, educology, and "life down home on the farm." My final goal is a view of literacy and text comprehension that I value. This view of literacy has implications for the research questions and methodology of future language research. It is also hoped that the reader will, by the end of the paper, symbolize, for the moment, who controls the meaning of "paradigm" and "literacy."
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Literacy Paradigms

Three literacy paradigms have shaped the questions, methodology, and interpretations of research in reading comprehension. I believe these paradigms continue to overlap in the educational research and teaching communities, but do create a pattern of historical development. The transfer literacy paradigm is earliest, where the fixed meaning in the text is transferred to the reader's mind. The authority for meaning always goes back to the text. Able readers are those who can absorb the greatest amount of text information. The truth of the information is exactly as the author says it, nothing more, nothing less. This paradigm is still pervasive in school instruction in the various knowledge disciplines.

The passive and receptive role of the reader in the transfer literacy paradigm is problematic for me, because comprehension seems like much more of an active, constructive event. In the interactive literacy paradigm, the reader activates cognitive knowledge structures and language processes to interact with the meanings fixed in the text by the language processes and knowledge structures of the author. The degree of match between the meaning constructed by the reader and the meaning of the author/text represents comprehension. In this paradigm, language is communication and the authority for the meanings lies with the expert reader. This paradigm is dominant in school literacy instruction and language research.
A transactive literacy paradigm is just emerging. In a transactive literacy paradigm, the reader, text, and context are dynamically created in the meaning. Meaning is part of a social context, and since multiple contexts are coexistent, multiple and unique meanings are created while reading a text. Reading ability is fluid--with the same text, a reader may generate a lot of meaning in one moment, and little meaning in the next moment. In this paradigm, texts have an infinite potential for generating interpretations. There is no objective authority for meanings. However, the subjective meanings are continually negotiated and conventionalized in social interaction. The transactive literacy paradigm assumes that language is for creating signs which symbolize our world, which must be social, and our own identity in that world.

With this brief introduction to the three literacy paradigms, I will continue to develop each one in connection to educational thought, research, and practice.
Simmons (1971) labels "the" seven major approaches to researching the comprehension process: skills, measurement, factor analytic, correlational, readability, introspective, and models approach. He concludes that all of the approaches have failed to produce any knowledge of the reading comprehension process. Simmons argues that the basic reason for this failure is the lack of an adequate theory or paradigm and he cites Kuhn's (1962) explanation that early fact gathering seems random in the absence of a paradigm. Simmons indicated that psycho-linguistic theory would give the field a paradigm that would provide hypotheses to test for theory refinement.

I don't believe that the research was missing a paradigm, but instead was shaped by an unquestioned transfer literacy paradigm. The research approaches tried to answer questions based upon a text with fixed meaning that was transferred in differing degrees depending upon the amount of reading ability in readers. The research methodology relied upon measurement instruments to both characterize readers and to represent the correct meaning in the text. These instruments were constructed to have reliability and validity, which in effect means that they were supposed to connect some observable, objective phenomena with the inherent text meaning or mental ability across all readers and contexts.

The skills approach hypothesized a collection of separate mental activities and tested for their existence. The
measurement approach tracked eye movements and other visible actions to link them to reading ability. The factor analytic approaches used the results of skills and measurement tests to statistically search for clusters of general reader factors that would predict the able reader and less able reader. Correlational approaches also searched for the best reader composite by correlating test scores with the readers' race, sex, instruction, etc. The readability approach delved directly into the structure of the text meaning under the assumption that every reader would confront this same structure.

Generalizing the reading processes of the best readers so this thing called reading ability could be taught equally to all readers, ignored the uniqueness of each reader in unique reading contexts. In fact, attempts were always made to control varying contexts, so each comprehending skill could be isolated and understood. Simmons contends that the failure to describe the comprehension process is because of the lack of a theory that could validly tell which measurable behaviors would reveal the hidden mental processes. I believe that the assumptions of the transfer paradigm is what prohibited any understanding of the reading process.

The assumption that texts have fixed meanings and that readers have a level of some unitary ability called reading ability constrains the methodology of the research. For example, most of the findings were based upon interpretations of reading tests. To construct a test over a reading selection to rank
readers' comprehension ability requires the psychometrist to create a parallel ranking of meanings in the text. The number of questions you can answer correctly combined with the ranked ease of the question, would determine the level of your reading ability. To make all these decisions about the quantity and quality of the items, you usually rely on construct definitions created by the experts in the field and on the normal curve to determine the p values for the questions, so good and poor readers can be discriminated. The use of statistics to construct a test spreads readers out high to low, even if reading ability is something that cannot be measured in such a way.

The ironic thing about constructing "objective" reading tests and experiments is that the interpretative constructs that are used to measure fixed text meanings and inherent reading ability are created by language users in social interaction. It might follow then that the meaning making processes that the research tries to uncover are actually happening within the test designers and researchers, and not in the "subjects" struggling to transfer the correct meanings in constrained experimental context. Maybe that is why researchers often prove their theories right when using tests based upon the theories.

Homans (1967) provides another argument about the lack of progress in generalizing and explaining the reading process. It is "in what is out there in the world of nature. The human mind is not altogether a free agent. It is subdued to the material on which it works. In some parts of nature the material is more
intractable than it is in others" (p. 89). To me, Homans suggests that human thoughts, emotions, and motivations are difficult "materials" to observe or manage in experimental situations. They are not the kind of thing you can hold on to, shove under a bright light, or chop open to examine. Material like air is constant enough across contexts that the general relationships between temperature, pressure, and volume can be explained. Laws can be written, but not about the highly intractable material of "reading ability," or "comprehension." Generalizations, laws, and derived relationships just don't seem to explain the variety of characteristics, or properties, of readers and texts. There are so many exceptions in the early reading research.

To make headway in literacy research, Homans (1967) believes that "the difference finally lies neither in the mind nor in the subject-matter but in the relation between the two--the problems that the materials of the different sciences present for the mind trying to bring order out of their different kinds of chaos" (p. 7). If the mind is studying the mind, then it is hard to be objective. Within the transfer literacy paradigm, the researcher makes the text meaning part of the objective world and creates an objective measure of the subjective ability in the reader. In such a dualist perspective, the researcher can describe the properties of each and the relationships among the properties to write the objective laws of literacy. However, all of this "begs
The paradigm. But, that may be just what research questions and methods do.

The transfer literacy paradigm is closely related to the positivist research paradigm. In both, the meaning is invested in the text, or the world, and is drawn out and organized in a law like manner equally by all men. The replication of the research establishes true knowledge about reading. Also, the researcher can be separate from the subject of study and not change it in any way as you study it. The laws, once discovered and refined, can be used to control nature; can be used to teach the correct processes of literacy. This discovery and use of the laws is value free and context free. In fact, my response to Kuhn's theory refinement as the last stages of a paradigm development suggests that a "paradigm" is a positivistic grand theory whose objectivity is refined until it breaks down and must be replaced.

The transfer literacy paradigm also undergirds the explanations of language in behavioral psychology, in which language use and meaning is a process of imitation and reinforcement. Language meanings and forms are transferred from the environment to each person by reinforcing correct forms and performance. To me, this is a passive reception of language, represented by the specific text meanings, "cultural literacy" (Hirsch, ), and reading skills, "functional literacy" (McLaren, 1988), that must be passed from the literate to the illiterate.
A Side Trip

As reading and language learning came to be viewed more as an active, constructive event, many researchers move away from the transfer literacy paradigm. At one time I envisioned this movement as a fourth paradigm called the transform literacy paradigm. The base for this set of assumptions was psychological work in perception and cognition, and in linguistics on Chomsky's 1957 language theory of transformational-generative grammar. Chomsky's theory was critical to shifting research away from the associationistic theories of language that emphasized the passive learning by imitation and reinforcement. In part, it was an assertion of the free will of the mind to interpret its world, rejecting the determinism of social conditioning and behaviorism.

In reading a text within this paradigm, the reader could come up with any interpretation they wanted based upon their own particular way of seeing the world. The reader's ideology shaped their perceptual apparatus which then transformed the text.

If you ever get into a discussion of reality and decide that it is all just in your head, then you are in the transform literacy paradigm. And the inability to answer the question about the reality of a charging elephant that runs you over reveals the limits of the paradigm for contextualizing our world. Some research paradigms today are wrestling with the nature of reality and how humans know the meaning of their world. Naturalistic Inquiry (Lincoln and Guba, 1985) is based upon the
position that there are "an infinite number of constructions that might be made and hence there are multiple realities" (p. 84).

This use of multiple reality seems to me to suggest that every person has a different reality. Shutz (19) has suggested that multiple realities exist within each of us as we contextualize our symbolization of the world in multiple simultaneous ways in our social interactions. Our everyday discussions of the ideas in a newspaper article is one reality that is overlaid by more abstract discussions with the barber about political philosophy, or by discussions with a colleague about how we interpreted the kind of language used in the article. Each of these frames of interpretation symbolizes a different reality and because of the many communities in which we carry on discourse about the world, we have multiple realities within ourselves and between each other.

The process of naturalistic inquiry is to express the different realities, or constructions, of the people involved in the research, and search for some consensus or group agreement in the constructions. However, there is never any convergence between the constructions of the world and the "true" world; reality can never be known. Research in a transform literacy paradigm would likewise focus upon the constructions about literacy in the minds of the people being researched in terms of the language they use as they engage in literate acts and talk about literacy.
In the 1971 review of reading comprehension research mentioned earlier, Simmons calls for more psycholinguistic research. Of the seven traditions he reviews, the introspective and the models research methodology are acceptable to him. Both of these methodologies focus upon what happens in the reader's mind to construct a meaning for the text. The advent of psycholinguistic comprehension research in the late 60's represents a reversal of the direction of meaning "from the text" (transfer) to meaning "on the text" (transformation).

I don't believe holders of these constructive views of meaning totally reject a fixed or limited meaning in the text; they just focus more upon the reader as a cognitive and linguistic processor of the world. After all, that is the most pragmatic focus, because instruction for improving reading comprehension has to be delivered to readers in terms of processes they can use. I think it is just a greater recognition of the subjective nature of reality.

In a way, I can think of the transform literacy paradigm as an antithesis of the transfer literacy paradigm. The synthesis paradigm would focus on the interaction between readers and texts.
The Interactive Literacy Paradigm

"Man is biologically predestined to construct and to inhabit a world with others. This world becomes for him the dominant and definitive reality. Its limits are set by nature, but once constructed, this world acts back upon nature. In the dialectic between nature and the socially constructed world the human organism itself is transformed. In this same dialectic man produces reality and thereby produces himself" (Berger & Luckmann, 1967).

In the interactive literacy paradigm the linguistic and cognitive structures in the mind meet up with the cognitive and linguistic structures in the text. The mind acts on the text and the text acts on the mind. From this interaction the mind constructs a meaning that matches reality (the intent of the text). The questions of the interactive literacy paradigm focus on this constructive process.

Pearson (1985) relates a shift over the 1970’s in research questions to a focus upon larger units of text in narrative and informative types of writing. This shift began to look for broader text structures and was accompanied by the search for larger mental structures in the reader; schema theory emerged. "Researchers in this period tended to fall into two categories: those who tried to characterize relations among ideas in texts and those who have tried to characterize relations among ideas stored in human memory" (Pearson, 1985, p. 14). Neither emphasis denies the importance of the other, but each just focuses upon their aspect of the entire comprehension process. Some researchers try to provide an equal emphasis upon both the text structure and the reader's knowledge structure, hence the
interactive literacy paradigm.

Harste (1985) points to the development of schema theory as evidence of a shift from transfer to interaction. In a meta-analysis of comprehension research from 1974 to 1984, Harste finds a massive number of research studies with a schema-theory perspective. These studies highlight what a reader brings to text variables (cohesion, propositional structure, organizational structure, story frames) and task variables (purpose, text type). "The dominant assumption is one of interaction, i.e., the reader contributes some things, the text contributes some other things" (Harste, 1985, p. 12:4). In this interaction, readers still vary in a unitary ability and now texts also vary in difficulty.

Information processing theories are also based upon interactive premises. These psychological models of how the mind handles the input of information, processes that information, then responds to it formed the assumptive base of many research studies into reading comprehension. I have a personal history in research based upon information processing. And, since this paper is long overdue for a personal story, I’ll present the history of my Master’s thesis. My thesis represents not only information processing and the interactive literacy paradigm, but statistical madness in an attempt to prove that a decontextualized textbook study procedure would work on a decontextualized text for decontextualized students in the context of a controlled experiment.

I taught 48 college freshmen to underline their text while
they studied and 52 different freshmen to use a study method called Survey-Question-Read-Recite-Review. To measure the effect of the study method, I constructed a 20 item test over a long reading passage about Sparta; I was in charge of the important meanings in the text (half were literal and half were inferential). I also factored into the design the reading ability of each student as measured by a comprehension test (the Nelson-Denny) and the preference of each student for underlining or note taking. I even had the nerve to justify my methodology by saying: "an investigation of reading/study methods need only consider the final product which is the quantity and quality of comprehension and retention achieved as a result of using the reading/study method" (Myers, 1980, p. 17).

My thesis assumed that there was a range of this thing called reading ability in people. It assumed that a text has fixed meanings that could be constructed by using a particular strategy for processing the text. It assumed that one strategy would engage the information processing of the mind better. I also assumed that everyone would study hard in an experimental context without grades or any purpose to learn about the Greek civilization. The only nice thing I can say is that I was aware enough of the influence of context and purpose to factor in the preference of the student for one study method or the other; although, I used an arbitrary behavioral measure to determine this preference. At no time did I interview, gather introspective or retrospective accounts of the reading process to
learn how each strategy was used by each reader to construct a
text meaning. Maybe that's why it wasn't so hard to finish
writing up the results! None of them were significant!?

Information processing theories also shift the
interpretative process of language from a syntactic to a semantic
base. Chomsky's (1957) generative grammar was based upon the
application of a small number of syntactic rules to an infinite
number of surface language structures to construct a deep
structure meaning. However, research by Bransford & Franks
(1971, cited in Pearson, 1985) indicates that comprehension is
more of a synthetic process, rather than the analysis of surface
language structures according to syntactic rules. And, Sachs
(1967, cited in Pearson, 1985) supports a memory that is more
semantic, a structure of propositions about the world which
provide the assumptions for schema-theoretic views of memory and
reading comprehension.

Fillmore's case grammar also explains meaning as a
synthesis and a semantic event by basing it on the different
relationships a verb has to nouns (nominative, accusative,
recipient). Other work in artificial intelligence brings the
proposition (a verb and the nouns, adjectives, and adverb that
go along with it) to comprehension research. The emerging
emphasis in semantic assumptions about meaning illustrate how an
interactive literacy paradigm is moving into the generative
meanings of signs assumed in a transactive literacy paradigm.

Meanwhile on the text side of the interactive reading
process, discourse analysis research also focuses upon the semantic structure of language in the text. Shanklin (1982) reviews discourse theories by Halliday and Hasan (1976), Frederiksen (1977), Kintsch and van Dijk (1978), and Rumelhart (1977). Their research investigates the properties of the text and how they influence the reader's meaning and memory of text information.

Early research methodology was based upon matching reader's protocols to the propositional structures of the text as determined by the particular text theory. A good match indicated good comprehension. Recent researchers manipulate the text to obscure or heighten the theorized idea structures, then compares a reader's introspective or retrospective protocols to the text propositions to analyze the effect of text upon reader meaning. Shanklin indicates that "recognition of the more active role played by readers has forced researchers in discourse analysis to take a more interactive view of the relationship between readers and writers as a communicative process" (p. 32).

As both sides of the interactive literacy paradigm focus upon the comprehending process, research suggests that meaning depends upon the purpose of the reader and the text in a particular language context. Lipson and Wixson (1986), in a review of the research on reading disability, call for a move away from the search for causative factors in readers. They pose research questions to examine the reader in interaction with text, task, purpose, and setting conditions of the reading
situation. This expanded view of the reading interaction incorporates the importance of social and cultural contexts and purposes in the construction of meaning for any text.

This context dependent view of the reading interaction is supported by many researchers. Scribner and Cole (1981) believe that "literacy is not simply learning how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use" (p. 236). Erickson (1984) states that "all 'literacies,' then, are radically constituted by their contexts of use" and "this new view turns the notion of individual ability inside out by seeing it as socially constituted rather than as context independent and located inside the individual alone" (p. 529-530). Heath (1982), accentuates the contextual nature of reading ability in three distinct communities each with their own adequate literacy, but a schooling context that only validates one form, or practice, of "literate ability."

The belief that literacy is constituted by the social uses of language brings the sociological to the popular psychological explanations of reader-text interactions. The interaction becomes a more complicated event than the processing of information using context-free semantic structures, or syntactic rules. Situational rules, contextual factors, human purposes, and social needs come to be viewed as factors in the meaning constructed with a text.

We have finally reached what I believe is the divergence
point between the interactive and transactive literacy paradigms. The movements from syntactics to semantics, social context and purpose and situational practices as reading ability are moves towards the assumptions of a transactive literacy paradigm. However, attempts to structuralize these notions as factors in reading formulates reading into another system of closed reader text interactions.

In the transactive literacy paradigm, every moment is a new context; every meaning is unique; neither are formulary. The symbolic nature of language is open to infinite meanings based upon the social interaction of language users. The character of that social interaction, although semantic, cannot be fixed across contexts. The uniqueness of each moment might seem absurd because in everyday literate acts we interact socially in fairly conventionalized ways across contexts.

I believe that the sense of absurdity has to do with the direction of interpretation across time. If you view the past as establishing a literacy environment (structure) that then impacts the way language is used in the present, extending into the future, then your beliefs move more into an interactive literacy paradigm. It would be absurd to suggest that in each moment we create all new conventions for understanding each other and the world. However, if you view the present as contextualizing both the past and the future, then your beliefs move more into a transactive literacy paradigm. Ultimately, any literacy paradigm must make assumptions about language across time and space.
because language is a sign system that allows us to symbolize and resymbolize our experience across time and space.

Current interactive paradigm research is characterized by generalized language processes that are qualified by generalized contextual situations. Pearson (1985) suggests that the recent research direction in metacognition is a logical extension of work on both schema theory and text analysis. Metacognitive questions attempt to describe the interaction of reader and text in terms of the awareness of the reader for all the semantic, syntactic, and pragmatic (context, purpose, and situational) variables.

When metacognitive research first began, I believe it was very much a examination of the moves a reader made, both consciously and unconsciously, with different types of text. Better readers seemed to be more conscious of meaning making, hence the early definition of metacognition—aware of your own cognition. In the context of an example, you might realize that you do not understand something you are reading, so you take some kind of action to fix up that lack of comprehension; or, when you open any text you have a particular purpose that directs your construction of meaning with that text.

Metacognitive research has focused on describing readers of different ability in contact with texts of varying structure, to develop a taxonomy of actions a reader might take to fix-up comprehension. Much of this research used texts that were "scientifically" constructed to be ambiguous or to be
inconsistent at some point where the reader’s fix-up action would then be measured -- the underlying literacy assumption that fixed meaning in the text is constructed by active processes in the reader. This taxonomy of reader strategies or processes is the generalization of language processes across contexts and readers which is characteristic of the interactive literacy paradigm. It is also often the case that these generalized processes are then taught as content to be learned -- an assumption in the transfer literacy paradigm.

It is important to note that experimental research into metacognitive processes rarely informs or establishes a context where the reader has genuine purposes for interpreting a text. This brings the study of metacognition under fire from those who believe that intention and context are critical elements of comprehension when a reader and text interact (Gates, 1983). So the study of metacognition and other comprehension processes has shifted into natural settings where literacy is more contextual and purposeful. Reese & Brown (1984) recommend that metacognition always be studied or taught in the format of small groups of interacting students, who share "natural" strategies for solving problems to reaching goals. This establishes a social context and purpose for literacy.

Information processing, schema-theory, discourse analysis, and metacognitive research, with its semantic and contextual emphasis, heads literacy inquiry away from the linguistic performance in the transfer paradigm. But, the interactive
literacy paradigm still assumes that fixed entities, or factors such as text, task, context, situation, and purpose have a force that impacts the active reader and can be generalized and taught. This paradigm accounts for the social nature of language by asserting that social interaction constructs a reality that then turns back its conventions upon the mind that interprets that reality. This is the dialectic indicated by Berger and Luckmann in the quote on page 18.

One of my problems with the interactive literacy paradigm is the fixating of conventions and meanings in an abstract objective world separated from the people who then subjectively interact in each literacy event based upon the objective language conventions. There is almost a sense that the reader is not a member of the social group whose truths are constituted in the text, and that the best comprehension results only when the reader adjusts his world to match that of the text. Appeals concerning the correct meaning of a text are solved by using the fixed conventions of the culture in which the text originated; and those in the best position to do that are the experts, thereby delegating the meaning of a text to the literate group who teaches others the correct way to read.
Transaction Resymbolized in a Transactive Literacy Paradigm

Transaction is not a new concept; however, its meaning potential is as open to signification as "paradigm." In my response to "transaction" in other texts, I often find the assumptions of an interactive literacy paradigm, and not the transactive literacy paradigm that I am struggling to symbolize.

If you engage for long in the study of how human beings relate to one another, especially through the use of language, you are bound to be struck by the importance of "transactions." This is not an easy word to define. I want to signify those dealings which are premised on a mutual sharing of assumptions and beliefs about how the world is, how the mind works, what we are up to, and how communication should proceed. (Burner, 1986, p. 57)

With this text, I think of transaction as the exchange of meaning between people that establishes a sense of understanding. To enact this transaction, Bruner asserts that we use some "executive processes" of language-- syntax, reference, and constitutiveness-- and states that "it is not simply that we all have forms of mental organization that are akin, but that we express these forms constantly in our transactions with one another. We can count on constant transactional calibration in language, and we have ways of calling for repairs in one another's utterances to assure such calibration" (p. 62). I like the idea that we constantly express our ways of symbolizing the world in our social interactions, but calibration seems to be reaching agreement in meaning to constitute a reality that is shared. The constitutiveness of language "creates and transmits culture and locates our place in it" (p. 65).
It seems then that transactions are social interactions where, aided by language, people establish their objective cultural reality and identity. I just have this uncomfortable status quo feeling from thinking about transaction in this way. It reminds me of the transfer literacy paradigm, especially when Bruner suggests that children are not the experts that adults are at the "disambiguation" of the meanings in language expressions. I have a sense that the calibration of meaning in a notion of transaction is a limiting action based upon the social world which constrains possible worlds by traditional social realities that are re-enacted in each communication. It seems to be a matching of one's interpreted world with others, with an abstract social reality, making language serve the communicative function instead of a creative one.

I do like how Bruner emphasizes for me that a transaction is a negotiation between language users in which both change or grow in their possible world, but I wonder if they have to end up with any agreement, if they can even possibly have shared symbolizations.

Transaction means the interactive and dynamic activation, instantiation, and refinement of schematas. Defining writing as a transactional process asserts that persons not only enter into the act, but change during it and, in turn, change their perceptions of their products. (Shanklin, 1982, p. 89)

Shanklin makes a direct link between transaction and schematas. As a language transaction begins, propositional knowledge schemas are activated and changed. With this text, it seems that the interaction of schematas inside your own mind is
what creates the transactive growth. This would fit with writing where you symbolize and resymbolize your thoughts, often discovering your ideas as you go. Again, transaction is a notion about every growing symbolizations of our world.

With these texts, I think transaction is very similar to the interactive construction of a reality in the mind to match the reality in other minds and the social world; language is seen as the medium for this interaction.

Transaction designates, then an ongoing process in which the elements or factors are, one might say, aspects of a total situation, each conditioned by and conditioning the other. (Rosenblatt, 1978, p. 17)

The notion of transaction as people shaping each other and as language and culture shaping and being shaped by people still seems interactive to me. Maybe what’s missing is a sense of the infinite and multiple possibility of meaning. Instead, I have a sense that everything is bent towards constraining possibility to a world view which can be accepted by an abstract entity called society.

In a reading event or reading act (with all that implies of a particular situation and time), a particular reader (with all that implies of past experience and present preoccupations) enters into a transaction with a particular text. A two-way or circular process must be postulated. The text offers guidance and constraint, yet it is open, requiring the reader’s contribution. The reader must draw selectively on the resources of his own fund of experience and sensibility to derive verbal symbols from the signs of the text and to give substance to those symbols, and he organizes them into a meaning that is seen as corresponding to the text. (Rosenblatt, 1981, p. 19)
In Rosenblatt's text of transaction, the reader contributes and the text contributes to the meaning that is achieved. This contribution is an ongoing process and results in a "poem" or interpretation of the text. For me, transaction of this sort is nothing more than the interaction of the interactive literacy paradigm. The authority for the meaning of the text is partly given over to the reader; however, the text still has constraints and the final meaning must correspond to the text's possibilities.

Bleich (1978) indicates that throughout Rosenblatt's writing, she refers to adequate and inadequate interpretations of the text and of attaining an undistorted vision of the work of art. Bleich states that "the idea of 'transaction' is a rationalization for the contradiction between the habitual belief in objective interpretation and the new-found sense of the reader's defining activity" (p. 110). "Transaction" in this sense accommodates the ongoing, generative symbolizing of meaning, within the objective constraints of an interactive or transfer literacy paradigm.

Understanding the relationship between a reader and a text is a lot like the epistemological question of the relationship between ourselves and what we know about the world. How do we know the world? How do we learn more about our world? In both the transfer and interactive literacy paradigms, the relationship between ourselves and the world seems to be based upon subject-object dualism-- we as subjects construct an objective world.
Berger and Luckmann (1967) speak of the "capacity of language to crystallize and stabilize for me my own subjectivity" and how "as a sign system, language has the quality of objectivity. I encounter language as a facticity external to myself and it is coercive in its effect on me. Language forces me into its patterns" (p. 38). According to this dualism, in language my subjective world "transacts" with the objective world and the two mutually shape each other.

The reading of a text, therefore, is a complex transaction between reader and text. It is also an ongoing, continuous process in which a framework of meaning gradually evolves as the reader transacts with a text over time. (Rodriguez-Talavera, 1986, p. 206)

The authority for this framework of meaning is still of question, although with this text by Rodriguez-Talavera, the ongoing, growing nature of the meaning making process is reinforced by connections to the notion of an evolving framework of meaning. "Evolving" also brings to mind adapting oneself to maintain a state of equilibrium with the external environment or the text.

The subject-object dualism relates in my thinking to the role of context in interpreting the signs of a text. If a text is given over to the objective realm of meaning, then its meaning is context free. If the text meaning is embedded in a unique context with a unique reader then the interpretation must always be subjective. "Meaning, argue the transactionalists, is always a relationship between the text -- the document read -- and the context, and does not exist independent of someone's
interpretation of that relationship" (Harste, 1985, p. 12:5). Therefore, I can speak of creating the meaning of a text by contextualizing the text, or recontextualizing it again and again in each new moment. But, I cannot speak of constructing a meaning by decontextualizing a text in a realm of objective meanings. Then, as creator of the context in which a text is interpreted, my own subjective meaning must be the authority for my interpretation. Must my meaning match a supposed objective meaning? What is the purpose of my meaning anyway?

The most that a reader can do with the real object, the text, is to see it. Readers of the same text will agree that their sensorimotor experience of the text is the same. They may also agree that the nominal meaning of the words is the same for each of them. Beyond these agreements, the only consensus about a text is on its role as a symbolic object, which means that further discussion of this text is predicated on each reader’s symbolization and resymbolization of it. These two actions by the reader convert the text into a literary work. Therefore, discussion of the work must refer to the subjective syntheses of the reader and not to the reader’s interaction with the text. (Bleich, 1978, p. 111)

Several thoughts connect in my thinking about a transactive literacy paradigm. First, only people can symbolize. There are no social, cultural, or language entities that objectively exist and symbolize meanings that a person must integrate with their own. Even in face to face social interaction, another person’s meanings are not impacting your meaning; instead, your interpretation (symbolization) of their verbal text, by contextualizing it in the moment’s moving social purpose and situation, impacts your meaning (resymbolization) about yourself, your situation, your relationships with others, your future.
action, or even your past. "The human being is not a mere responding organism, only responding to the play of factors from his world or from himself; he is an acting organism who has to cope with and handle such factors and who, in so doing, has to forge and direct his line of action" (Bloomer, 1969, p. 55).

The social context in which a text is embedded is also symbolized by simultaneous and multiple sign systems which include language, gesture, movement, music, and art; therefore, meaning cannot belong solely to the realm of the language sign system.

In a transactive literacy paradigm, the interaction or "transaction" of the reader and the text is not the source of meaning or the focus of inquiry. Instead, meaning is the symbolization of your response to the text and the resymbolization of your interpretations to your’s and other’s responses. The notion of meaning here is one of expansion; the text is always underdetermined in meaning. The creation of meanings that push beyond the text to symbolize yourself and your ideas in the current social context is the purpose for literacy use and the focus of literacy inquiry.

In the sense of the transfer or interactive literacy paradigms, it might seem that meaning is getting further and further away from the text, but in the transactive literacy paradigm, meaning is the infinite potential of text and not the constraints which focus one meaning for a text. Therefore, reading ability is not a unitary ability that can be objectively
defined and measured. Reading ability is instead the vastly varied ideas and questions that embody your response to the text, and everyone can make a response. The degree to which you reflect upon the symbolizations in your response, the contextual assumptions you make to frame your response, and other possible symbolizations of the language in other contexts, may express the notion of growth in reading ability.

In a transactive literacy paradigm, you are the authority for your significations. As Serebrin (1988) put it in an informal conversation, "You may not have any right to the meanings of what you say." Any text you produce is open to any signification, no matter how hard you might try to close down the text by using objective third person, matter of fact, past tense prose, or by insisting that such and such is not what you meant something you said or wrote.

In a transactive literacy paradigm, the social base of life's purposes and situations (contexts) is created and experienced through social interaction. Each of these life's situations is unique, because you always arrive in them on the heels of a new symbolization. Yet, there is something historical that often creates a "leaning" towards a conventional signification for language in a particular social interaction. In the transfer literacy paradigm, it is the reality of meanings beyond the self, that you accept as true. In the interactive literacy paradigm, inner schematas for constructing the conventional meaning are built and remodeled by experience with
each type of external event taking place. In the transactive literacy paradigm, the social interaction is full of potential texts that have meanings, some of which are conventional and others are creative, and the degree to which your signification in the interaction stretches the possible is continually negotiated in your changing social context.

In a transactive literacy paradigm, the classroom is a place where everyone’s responses to text are encouraged. Diversity in response is highlighted. The connections between everyone’s responses and ideas are nurtured and expanded. Responses are not measured against some objective text meaning. The classroom develops a community voice which speaks in many different voices about the concerns of all. The transactive literacy paradigm is not a rejection of authority or a promotion of individualistic interpretation, but a recognition that our knowledge of our world is socially based and ever changing; our knowledge can best meet our community needs if texts are viewed as jumping off places for sharing responses, creating notions, and contextualizing ideas, that have current relevance in the felt social context. The definitions of reading, writing, and literacy by Jay Robinson (1987) seem to capture some of this spirit of a transactive literacy paradigm:

Writing is the ability to employ written language to create texts that are valued by readers in particular contexts. Reading is the ability to act upon written texts to create meanings that are valued by one’s self and by other readers joined in community in particular contexts. (p. 348) Literacy is the ability to participate fully in a set of social and intellectual practices. (p. 351)
The Semiotic Basis of a Transactive Literacy Paradigm

Semioticians suggest that everything we know about the world is mediated by signs. This is similar to saying that everything is interpreted or symbolized. The meaning we signify in a sign depends upon the context in which it is positioned. This context involves multiple sign systems, of which language is one. Gesture, dance, art, music, and math have also been thought of as sign systems. Signification is socially based as we use signs to create our own world and share it with others.

Signs are said to have infinite potential for meaning. Through our social interactions we can signify the text or objects we share in infinite ways. As we create a new text in relationship to other texts (talk about or respond in writing) we further push the possible meanings, creating new significations. A key aspect of the transactive literacy paradigm is that we are always in the act of creating new signs to symbolize our world. Meanings or signs, therefore, are not fixed. Likewise, memories are always reinterpreted in the present context.

A transactional view of language learning . . assumes that meaning resides neither in the environment nor totally in the head of the language learner, but rather is the result of ongoing sign interpretation. Language is seen as open, and meaning is seen as triadic, the result of a mental setting actively attempting to make sense of a print setting. When such a triadic relationship is in place, a sign function has been established, and an instance of literacy is said to occur. Word meaning changes by the circumstances of use in transaction with the history of literacy which the language user brings to the setting. (Harste, Woodward, Burke, 1984, p. 57)
The classic diagram of a semiotic event is triadic with the sign, object, and interpretant in a dynamic simultaneous relationship:

```
       Sign
          |
          |
- - - - - - - Object
          |
          |
Interpretant- - -
```

In this triad, the object can be traced back to the world which, according to Pierce, is out there, but can never be known, only mediated by the sign. The interpretant can be traced forward into the mind where it has meaning for the language user. An interesting thing can happen if you consider an example of signification:

```
   rose

   - - - - - -flower
          |
          |
love- - - - -
```

In the diagram above, a rose can be a sign that signifies the giving of flowers with the meaning of love. In the diagrams below, love can be a sign that signifies the roses on an anniversary. Likewise, a flowers can be a sign that signifies a florist van full of roses.
What I am trying to demonstrate is the infinite potential in which both the object and the interpretant are signs for other signs. This is what semioticians mean by the world is profuse with signs. There can be a sign of a sign of a sign. Anniversary signifies time, wine, age, a ring, togetherness, the loss of a flame, or an infinite number of other possibilities, and each possibility in context with other signs makes multiple potential meanings possible. The context and purpose of a kiss have a lot to do with the signification of the moment. It could be a farewell kiss, a meeting kiss, a stolen kiss, or a spin-the-bottle kiss. So, signs are multiple in meaning potential and multiple sign systems are used to signify, or symbolize each meaningful moment. I hope I am giving you a sense of how much everything is a sign, including yourself.

The infinite and multiple potential of the sign to symbolize our world is the generative nature of our language that allows us to continually create new worlds as we socially interact with others. However, of consequence is the history of literacy that each language user brings to a social interaction. We have the tendency to fix the interpretations of signs into social and language conventions that facilitate communication and living. Perhaps, besides the power of the language and other sign systems to symbolize our worlds for ourselves and to symbolize ourselves for others, they also allow for some continuity of experience across the unique moments of life. An explanation of language conventions is critical to literacy research and instruction.
My problem with the interactive literacy paradigm is that language conventions are part of a cultural structure that socializes the young and impacts our understandings of our world. This is a passive position that creates entities that are beyond our active, everyday control. As a paradigm, it leads me to critiques of institutions, formulations of interconnected rules that people use to derive their behavior, and the creation of large scale social theories that lead further and further away from the daily experience of social interaction where the signification of the world actually happens. The conventions are examined, but the authority for them is invested in nature or power beyond the immediate community.

A transactive literacy paradigm asks that you are always actively interpreting the text or artifacts of your world. However, because the meaning of signs, or your symbolizations and resymbolizations, are based upon social interaction, your sense of "community" constrains the infinite potential interpretations. By community, I mean any group of people who are in the immediate act of using language, or in the act of symbolizing the world using multiple sign systems.

"Using language" is commonly interpreted as the communication of meaning, but I suggest that "using language" is always the creation of meaning. Each person must create the meaning of their own interpretations. The "community" meaning that we create each moment is a sign that is signified by each person, each moment, engaged with others. When we use oral
language with different people we adjust our meanings each moment as we produce our relationships with each other. Our sense of community is always open for change with each person we talk with, and is usually different with different people and with the same people at different times.

Literacy brings us in contact with a vast and diverse number of other communities all of which we create as signs at the moment of language use with each of them. Literacy is never individualistic because we are always contextualizing our meanings in terms of others even when we are alone. Literacy then is a social act of symbolizing the social world. It makes possible the bridging of unique contextual moments to give meaning and order to the present in terms of the past and future. It also makes possible the control of the worlds of others by the establishment of sanctioned literacy practices by one community who can maintain social power over other communities.
To return to the reading of a text. The following drawing represents two readers of the same physical text, or two knowers of the "same" sign, such as researchers inquiring into the "same" phenomenon:

Each circle represents an interpretation created by a reader. Each text provides infinite potential interpretations that can be created by a reader and each reader has multiple significations with each text reading. Different readers share parts of the multiple interpretations, but they never share completely any interpretation. The portions of meaning they do share are signified by mutual contexts made possible through social interaction. Readers of the same community will have established conventions (contexts and purposes) for the potential meanings of signs in the language used. If power is held over others, then these conventions will become fixated authority to text meaning. However, even in an authority situation, these conventions are momentary and always open to negotiation, which
is demonstrated by the generation of new meanings for words, the creation of new concepts or ideas, and the use of metaphor to connect signs in novel ways. This language negotiation is the social and individual contextualizing of signs to provide the interpretations that seem most important to the community. It can happen in a discussion of the text read, or it can happen when you hear the voice of a friend in your mind interpret something in a characteristic way. However, the generation of new meaning cannot happen if the text is considered to present a fixed perspective on the world.

A transaction contextualizes signs to symbolize our world. Languages, as systems of signs, bring conventions to each knowing event that constrain potential signification. But, these conventions are never fixed, as suggested by interactive explanations. The conventions are always in negotiation by the collaboration of language users.

As humans, we have a tendency to objectify characters, conventions, and society, and create stereotypes and expectations, because it gives us a sign of order to the world and our life. But, at each moment, we are perpetuating, or reproducing, this symbolic order of conventions as an interpretive act. We can perpetuate conventions in our interactions with others or to ourselves. Often we do not recognize how we perpetuate conventions which represent the dominant perspective of the dominant community; we could be more
conscious about our active role in creating the interpretative symbols that form the communities we live in.

Our culture, too, is a sign, an interpretation, that we can accept the responsibility for creating in transaction with ourself and others, or that we can irresponsibly receive in the cyclical fixed “interaction” between the individual and culture.

Language is generative and when we use it we can invent all kinds of new meanings in the world. Language creates our artifacts by naming them (signification) and nothing ever gets a simple or stable name. By using signs, I create myself (I feel happy), my signs (a smile, a laugh), and my meanings (the context and purpose of my happiness). Signification is simultaneously multiple and infinite in potential. This is the responsibility in a transactive semiotic paradigm.
Transactive Paradigm Research

Harste (1985) suggests that many researchers began with an interactional view of reading and were led to a transactional view in order to explain their data. This is what I find happening as I reinterpret cloze, miscue analysis, and background knowledge research.

Cloze was first developed in 1953 by Taylor and has been used extensively to analyze the readability of text. In the last two decades cloze has been used as measurement instrument of reading comprehension to match readers with texts. Recently, as a standardized test, proponents claim that the process readers engage in to fill in the blank for every seventh, or nth, deleted word is the closest to actual reading. From an interactive perspective, cloze implicitly includes reader factors and text factors in the process of choosing a word to fill in each blank. From a transactive perspective, the reader is negotiating the interpretation of the text by creating a new context for each missing word. Filling the blanks becomes an ongoing process of signification and reinterpretation, based upon the changing context of the text as each new blank is encountered.

Miscue analysis came on the reading scene around 1970 and was an outgrowth of the new psycholinguistic tradition. Goodman and Burke developed the first reading miscue inventory in 1972. An understanding of a reader's ability is gained by systematically recording the reader's miscues (errors in reading the text). Only miscues that dramatically changed the basic
meaning of the text are considered problems for planning reading instruction.

Miscue analysis used within the perspective of interaction views the reader as constructing an adequate meaning for the text. However, when the reader's miscues are suddenly recognized not as errors from convention, but as valid significations of the reader, the transactive nature of comprehension is highlighted. Readers can be seen as negotiating text and context in a social collaboration with the author and others to create their unique interpretations. A clear example of the transactional base of miscue analysis is the value placed on the self correction of miscues, which involves the ongoing reinterpretation of the text and context to make a sensible meaning.

In the most recent version of miscue analysis, Goodman, Watson, and Burke (1987) write that "reading changes readers" just as readers change the text in creating an interpretation (p. 21). Studying the miscues, or changes in a text, by readers helps you examine their transactions with that text.

Current conceptions of background knowledge or schemata have started to include the role of the varying contexts of texts. The creation of the background knowledge metaphor is clearly an interactional belief--the reader has organized in a memory structure (schemata) the propositions and relationships between ideas in the possible contexts of the world. These schemata are then brought to mind as the inner context for interpreting
I believe we should begin to use the metaphor of presentground knowledge.

In transactive paradigm research each sign has potential meanings for all, many of which are signified within the present social context. The interpretation, reader, and sign is created in each interpretative moment in a presentground social collaboration. Memory may "a myth, a closed system; the past is always reinterpreted, not actively interpreting; there is no going back.

Besides resymbolizing past research so it can inform transactive literacy, the emergence of transaction as a theory of reading comprehension and knowing is supported directly by many current research directions.

Anthropological linguists have developed a semiotic view of the meanings held by people of a cultural community. "Not only is language a form of action; all actions are potentially invested with meaning, in that they are susceptible of interpretation by actors and observers" and "a truly semiotic ethnographic focus must be reflexive to the point of recognizing. . . the contextualized nature of all cultural phenomena" (Herzfeld, 1983, p. 100). Meaning is more than just general language utterances. Gestures, clothing, silence, and the entire context of social situation and purpose are critical parts of the symbolization of the world in a community. Many anthropologists now study how people negotiate the signification of these multiple signs in their community, and how this negotiation is social and always
open to new signification. This type of study is marked by linguists who place primary emphasis upon semantics, rather than syntax.

Research studies in early reading promote children of all ages as sophisticated language users. In using print and art to create meaning these children demonstrate that "convention is a function of context and involvement in the language process" (Harste, Woodward, Burke, 1984, p. 29). Through the social engagement with others to make meaning children are able to use both social conventions and personal inventions to accomplish meaning; what is of most importance is signifying meaning in a particular context for a particular purpose. Context and purpose create pragmatics which "is the system of language which join language users, not only through convention but through negotiation and discretion" (Harste, Woodward, Burke, 1984, p. 28).

In the past, it was assumed that proficiency at oral language was required to learn to read, and that both were then required to learn to write. This is based upon the assumption that literacy is decontextualized language. School curriculums are usually ordered to represent this linear development of language from oral to literate. However, recent research (Harste, Woodward, Burke, 1984) suggests that children are simultaneously using all sign systems--speech, reading, writing, art, music, and movement--in generative ways to construct meaning in the world. The current view is that, given enough
experience with literacy in contextual situations, or any other sign system, the child will naturally develop the use of the sign system with the same amazing capacity as learning to speak and listen. This is a transactive perspective, where social experience and negotiation provide the collaborative use of languages in a context that has a purpose for signifying the world.

Research in the connection between reading and writing suggests that both are an act of composing (Tierney & Pearson, 1983). Both can be interpreted as a transactive event. In writing, you construct a text that symbolizes for you potential meanings in a particular social context. As you write, you read and reread, interpret and reinterpret, generating as many potential meanings as you think are possible within multiple social communities. The social communities are like voices that you hear, making potential interpretations. Sometimes the writing is more for yourself, and at other times the voices are from other communities in which you want to contextualize your text. Often you push the writing aside for a day or two, to come back to it in a new contextual moment. The new potential interpretations upon rereading an old text can be enlightening or discouraging. Editing is a continuous process of resymbolization to focus the potential interpretations in the context of the whole text. In writing and reading, you signify potential conventions and contexts simultaneously with any part of the text, and you are always ready to negotiate those conventions to
share more meaning potential between the reader and the writer. How this language negotiation takes place in the reading/writing act is a current transactive research question.

A new focus has also emerged in classroom research. "Rather than ask which behaviors by teachers are positively correlated with student gains on tests of achievement, the new comprehension researcher is asking questions of collaboration, 'How is it that it can make sense to students to learn in one situation and not in another? What are the teacher and students doing differently? How are these meaning systems created and sustained in daily interaction? What does reading comprehension mean in this classroom as opposed to other classrooms and how do these definitions-in-use relate to morale and what we see as the goals of reading and reading instruction?'” (Harste, 1985, p. 12:16).

Likewise, Puro and Bloome (1987) focus classroom research on the communicative context, continuously constructed by students and teachers, negotiated by them "as they act and react to each other through their verbal and nonverbal behavior" (p. 29). Clearly, social collaboration, negotiation, and interpretations framed by using language in a purpose-laden classroom context are notions of a transactive literacy paradigm.

Along with the transactive research questions suggested by the above research efforts, I would suggest the following as questions of a transactive literacy paradigm:

How are the literacy agendas held by each participant in a classroom created, negotiated, enacted, valued, or devalued?
What would happen with the critical thinking in students where the focus of class discussion was upon the responses to a text and not on the text itself?

How are convention and invention created and negotiated by language users in contextual situations to achieve purposes for literate actions?

What are the purposes of literacy symbolized by language users?

How does the history of literacy purposes become resymbolized and perpetuated in new contexts?

Are space or time constraints in a public school symbolized by teachers or students as limits on the potential meaning and purpose of literate actions?

What is symbolized as the appropriate response in different literacy events which are symbolized by students, teachers, and parents, as literate acts?

How is a written text as generative and negotiable as a spoken text?

What do the notions of intertextuality and intersubjectivity mean in terms of the community context and purpose for literate actions?

How is the reflection upon symbolizations of the world related to the responsibility for creation of the world in each social interaction?
Methodology in a Transactive Literacy Paradigm

Three methodologies current in field of social research seem resonant with a transactive literacy paradigm. They are naturalism (Lincoln & Guba, 1985), symbolic interactionism (Bloomer, 1969), and cooperative or collaborative inquiry (Heron, 1981). The transactive paradigm as I have been thinking through it in this paper also seems to have an element of reflexivity about how we continually symbolize our world. It attempts to avoid being ahistorical in the literacy actions which are enacted in each new context. Therefore, also relevant to the transactive paradigm are critical theorist methodologies (Popkewitz, 1984).

Naturalistic Inquiry

In my study of naturalism with Egon Guba, I have developed the following principles of naturalistic inquiry:

1. Accept the state of continual knowing: as you inquire, accept confusion and doubt about the meaningfulness of what you experience and be wary of thinking you have fixed the interpretations or values of others. Do not make your style of thinking others' style of thinking or ascribe a system of meaning and value that doesn't change.

2. You must be interested in the people for who they are and not for who you think they ought to be: if you do not want to become loyal and responsible to others as friends, you will not be able to represent their beliefs. Mutual change will occur; it doesn't mean that you cannot express your beliefs.
3. Meanings emerge from social interaction: you must become a part of the everyday social interaction to come to understand and take part in the symbolizations used by the people to make meaning.

4. Interviews begin open and provide continual reinterpretation of previous interactions: start with the question, "Talk to me about how you see things here?" Follow the symbols of others and use them in the interaction to check their acceptability. Resymbolize in each interaction what seems to be the important community perspective. Share what other community members symbolize to check the prevailing perspective in the community.

5. Situational context and human intentions shape the symbolization of the world: you have become a part of the everyday interaction of the people in the inquiry. Your interactions may represent an altered context and intention from the everyday social situation before you arrived. You are creating for others, just as they are creating for you, new interpretative potentials for the signs and symbols in use. Study those potentials.

6. Reporting naturalistic inquiry must be open text: the report must provide for the reader the opportunity to interpret the symbolizations of the social actors (you are one among them) just as you have interpreted them and yourself. Then the reader gains the added power of comparing his or her interpretations to
your own. This provides the triadic perspective needed to signify meaning from educational research.

The power of naturalistic inquiry is its potential to express how people go about constructing sense from what they are experiencing. Some naturalistic inquiries focus just upon the sense that is constructed by people in particular contexts. I believe that this is a limited view of research in a transactive paradigm where sense making is an ongoing symbolizing and resymbolizing process.

The hermeneutic nature of the inquiry where symbols are carried from one interaction to another to ask all the community members to respond is a very meaning productive experience. Not only does the research grow, but each member of the social group gains perspective upon others and themselves that they did not have before.

The creative power of naturalistic inquiry to study how signs symbolize our world and ourselves across time and contexts in everyday interaction needs pursuing. In other empirical-analytic research, the sense and the making of sense is just inferred from operational definitions and measurements that assert construct, content, and ecological validity.

Symbolic Interactionism

Bloomer (1969) outlines four central conceptions in symbolic interactionism that have implications for educational research methodology:
1. People, individually and collectively, are prepared to act on the basis of the meanings of the objects that comprise their world;
2. The association of people is necessarily in the form of a process in which they are making indications to one another and interpreting each other’s indications;
3. Social acts, whether individual or collective, are constructed through a process in which the actors note, interpret, and assess the situations confronting them; and
4. The complex interlinkages of acts that comprise organization, institutions, division of labor, and networks of interdependency are moving and not static affairs. (Bloomer, 1968, p. 50)

The first conception of symbolic interactionism suggests that the researcher’s first role is to signify for himself those objects and concepts that have symbolic power in the world of those in study. This requires extensive descriptive accounts of how actors see the objects, act towards the objects, refer to the objects in their daily interaction with others. "The depiction of key objects that emerge from such accounts should, in turn, be subject to probing and critical collective discussion by a group of well-informed participants in the given world" (Bloomer, 1968, p. 52).

The second aspect of symbolic interactionism asserts that everyday social interaction is not just an arena where determining social factors interact and manifest themselves through the action of people (reminds me my problems with an interactive literacy paradigm). The continual process of “interpretation is sustaining, undercutting, redirecting, and transforming the ways in which the participants are fitting together their lines of action” (p. 53). You cannot use schemas
of cultural or psychological theories to interpret the significance of actions, and you cannot once symbols and "lines of action" emerge force them into generalizable patterns to create a single form for describing the social interaction.

The third conception of symbolic interactionism places the actor as primary. Any social action cannot be seen in terms of pre-existing factors in the environment or in the mind of the actor. The focus of study is the action, or as been suggested by Bleich (1978), the response of the actor to the text or event. For that action or response, the researcher must construct the signs that were symbolized by the actor to form the action. This again requires the researcher to become a part of the social interaction and to reflect with the actor upon all the signs (responses and actions) in context.

The last conception of symbolic interactionism deals with the larger entities of society such as schools. Bloomer suggests that you cannot view these institutions as entities with any objective status. Instead, you must describe their meaning in terms of the participants who create the organization at each point in which they act. "Beneath the norms and rules that specify the type of action to be engaged in at any given point in the organizational complex there are two concurrent processes in which people are defining each other’s perspectives and the individual, through self-interaction, is redefining his own perspective" (p. 59). Again the focus of the research is upon
the symbolization and resymbolization of the actors who are participants in the organization.

To study the nature of a classroom, then, you must illuminate for yourself the perspective of each member of that classroom. By perspective I mean the symbolization of everyday meaning in the situational context and purpose as interpreted by the actor. Then, the perspectives of each actor must be brought to other participants in the social organization to better understand how they interpret others and themselves. Transactive growth is inevitable.

Cooperative Inquiry

Cooperative research methodology is supported by Heron (1981) based upon some of the same language premises as the transactive literacy paradigm. Heron states that extra-linguistic cues are critical to interpreting each other’s thoughts. Through language, joint symbolizations of experience are possible. Cooperative methodology emphasizes the same participatory role of the researcher as symbolic interactionism and naturalism. It also requires that the researcher attempt to symbolize the world in the same way as the actors in the research context.

Interviewing is a major way for researchers to check their interpretations of the language user’s perspective. Even in the interview situation, the researcher is still apt to make interpretations that do not symbolize the world in the same way
as the actor. Naturalism calls for later "member checking" of the categories and relationships that are determined by the researcher. Symbolic interactionism suggests that small discussions with articulate members of the community can help determine the fit of symbolizations made by the researcher. The following collaborative interviewing method is something I devised for use to immediately engage the participants during the first interview to reflect upon the symbols they use to create their world.

Collaborative interview methodology (Myers, 1983) involves the participant in analyzing the data that they give in the interview. The interview is conducted in a very open fashion beginning with a question that asks "what's do you think about what is happening" in the context of the study. Other questions might be "why do you read?" or "What has it been like between sixth and eleventh grade?" From here the researcher follows the topical lead of the participant and writes the words of the participant on 3 by 5 note cards. The cards are dumped into a pile in front of the researcher and participant who are sitting with a corner of a table between them, so the participant can watch what is written.

The researcher keeps up with the cards as best as possible and starts a new card whenever it seems a new symbolization is being made. Follow up questions are made by repeating the language of the participant with an intonation that asks for clarification or expansion. After thirty to forty-five minutes,
there is about 30 data cards and, together, the researcher and participant read over each card and fill in missing language to make it a complete thought. New cards might be written to record connected ideas that come up.

After each card is read and clarified, the participant is asked to place it in a pile with other similar ideas or thoughts. During the process, after a pile gets three or four cards, the participant is asked to think of a label for the group of ideas in the pile. The research can make suggestions for this symbol, but the authority must remain with the participant. After all the cards are read, clarified, and categorized, the piles are organized to reflect the relationship of the categories. This may be in the form of clusters, hierarchical sequences, or some other way. A visual drawing is made and given to the participant to think over until the next interview when changes can be made in the category labels, ideas, and relationships.

The collaborative interview method has worked well with different participants and different researchers. In using it to research literacy questions, it may be unnatural to participants who rarely write things down or see things in print. But, it should not preclude the illiterate because each card is read aloud to check its meaning with that intended by the participant. In fact, the authority for the meaning of what is written down by someone researching an aspect of your life is gladly accepted by the participant. He or she feels a lot more comfortable than
watching you write a bunch of stuff down, or tape record, then carry it away to decide what it means.

Considerations on Methodology

The transactive literacy methodology outlined in this section focuses heavily upon the symbolizations students might have of their school setting or of literacy in their worlds. Wehlage (1981) argues that field studies, ethnographies, or phenomenological studies must also produce generalizations concerning the structure of schools or society that produce the meanings one comes to hold about literacy. "A basic assumption of the position just outlined is that institutional structures interact with the social biographies of people to create meanings which in turn guide subsequent actions within the structure" (Wehlage, 1981, p. 219). This assumption places the generalizations called for by Wehlage within the interactive literacy paradigm.

Wehlage does make potential a few ideas that allows me to resymbolize generalizations as a possible goal in transactive literacy research. First, he indicates that the relationships between institutional structures and actions that create the generalizations must be seen as appropriate by the actors. In other words, the actors are symbolizing the features of a social interaction that in turn constrain the interpretations they feel they can make. Second, Wehlage consistently calls for the need to continually recreate the generalizations because the social contexts in which they occurred is always changing. This
continual state of change embodies the transactive nature of social interaction.

A transactive research question which represents Wehlage's call for generalizations would be something like: What aspects of schooling or the classroom situation are symbolized by students, teachers, and parents as involving literacy actions? and, What is symbolized as the appropriate social action in each of these literacy situations?

The transactive paradigm research is based in a large part upon empirical data, the stuff of everyday experience as it is symbolized in social interaction. Many educational researchers (Suppes, 1974) are opposed to the emergent character of this empirical inquiry. They demand theory that spins hypotheses that can be experimentally tested and replicated to establish the truth of the theory. Hopefully, what this paper generates about the infinite potential meanings of any sign or symbol demonstrates that if you look for something, you’ll find it. "Theory, it is believed, identifies rules that transcend particular and historically situated contexts. . . . Our understandings and explanations of social affairs are never separate from social location, cultural circumstances and human purpose" (Popkewitz, 1984, p. 184).

Emphases in educational research to develop generalizations and test theories stems from the positivist research paradigm where the goals of research are to understand and predict educational phenomena. From such a true understanding, literacy
instruction, for example, could be better enacted and the meanings of texts better controlled by the community in power.

I’m not sure if social change or social control represents the intention of researchers who argue for the discovery of the truth in educational research. In either case, when the theoreticians or experts are in charge of characterizing our reality for us, then our “actions are no longer expressions of people but symbolic performances used to define people in general. This conception of knowledge and process devalues what is human. What are essentially social and human activities are made to seem thing-like facts separated from their human source” (Popkewitz, 1984, p. 192).

The research suggested here for the transactive literacy paradigm is focused upon the contextual understanding of a social situation by the actors in that situation. The goal is to make the actors more aware of their own symbolizing of the world at the same time as it becomes clearer to the researcher. In the process everyone will be served as they reflect upon how they symbolize their everyday uses of literacy, or their everyday interactions in the classroom with literacy. This is a research of praxis, where the participants serve themselves.

It is the reflexive nature of inquiry in the transactive literacy paradigm that reminds me of critical theorists (Popkewitz, 1984). Critical science is concerned with how forms of domination and power are maintained and renewed in society. The intent of the research is not just to describe and interpret the dynamics of society, but to consider the ways in which
the processes of social formation can be modified. Finally it posited the social world as one of flux, complexity, contradiction and human agency. (Popkewitz, 1984, p. 50)

So, as transactive literacy methodology searches for the symbolization and resymbolization that creates the world of humans in each social context, the actors in that world become more reflective about their role in creating or recreating the symbolic power in their community. They become more reflective about the interpretations they cast upon other’s actions. They become more reflective about the potential interpretations for their own actions. The become more reflective about the negotiation of meaning and the potential to create new meanings in their social relationships with others. In effect, the authority for the meanings in the world becomes their own and with that authority, comes the responsibility for making the world a better social place through the potentials they create for themselves and each other.
The Transactive Literacy Paradigm as a Value Choice

Bruner (1986) states that "the realm of meaning, curiously, is not one in which we ever live with total comfort" (p. 64). There is always some doubt about our interpretation of someone's statements or of our symbolization of the world. In our moments of unsure meaning, Holland (1975, cited in Bleich, 1978) believes that "tenacity, not negotiation, is the human style, for we use the ideas we hold to re-create our very identities" (p. 113).

Bruner would seem to support this notion of maintaining our identities and our world view when he speaks of the constitutiveness of language to create and give ontological status to the concepts words embody. This reproduction of meaning seems to be the underlying force in the notions of equilibrium, assimilation, and accommodation which Piaget uses to describe the cognitive operations we use to know and learn about our world. If language serves this reproductive role, then the reading of a text is always a closed event, with possible interpretations constrained within the status quo perpetuated human context and purpose.

This position on language and cognition fits well with the interactive literacy paradigm. It is the assumption that supports the notion of mental schematas directing the interpretations made with the fixed knowledge structures in the text. I feel a danger of stagnation, unreflective reproduction of cultural meanings in the symbols created with language when the assumptions of the interactive literacy paradigm are held.
Bleich (1978) contends that the act of reading cannot be anything but a desire to enlarge the sense of oneself; "in fact, the continuing process of growth defines any new act of ideation as a contribution to that process" (p. 121). Therefore, to engage in literate actions is to change yourself, to create new worlds, not to perpetuate the status quo.

In a transactive literacy paradigm each person is responsible for the symbols they use to create meaningful worlds. As we socially interact with each other, we establish the contexts for interpreting the words we use. This context of human purpose and situation is always negotiated and renegotiated with each moment of social interaction. The momentary context shapes the symbolization of the text; this is what I mean by contextualizing a text to create new knowledge.

If we establish a context where the teacher is the holder of truth and the only one able to fully know the meaning of the text, then it is likely that little growth will occur in the student because they will just be reproducing the language of the text and teacher. In fact, in contexts such as this, correct language performance is the focus of attention and the text is appealed to as the authority of meaning, because this covers up any reflection upon the underlying context which keeps the students or reader in their symbolic place.

If we establish a context where the reader needs the appropriate knowledge to interact with the text meaning, then the authority of meaning is held by the culture, as represented by a
body of experts that the teacher belongs to, and the student must be led to the knowledge a little bit at a time by constant schema modification. In these contexts, cultural knowledge is emphasized even if the students' personal background experience is recognized as the source to build upon. Literacy is the adoption or development of the language patterns of the cultural group which holds the authoritative meanings. This once again avoids the issue of why a particular text, or bit of knowledge is important to the social world symbolized by the student. The context of life is fixed, and the resultant decontextualized view is held as the guide for communicating meanings through well defined literate activities.

If we establish a context where the sign holds the authority, then the negotiation of meaning in a social setting can deal with the different contexts that are used by each person to symbolize the sign. Each response to the text is a resymbolization that is signified through both the text and the context. Reflecting upon the symbolization and resymbolization of the text places each reader in a critical stance of their own and others' language use and literacy practices. "The reading of a text now demands a reading within the social context to which it refers" and it is through the social experience of multiple discourses and a diversity of responses "that students generate meaning of their everyday social contexts. Without understanding the meaning of their immediate social reality, it is most
difficult to comprehend their relations with the wider society" (Freire & Macedo, 1987, p. 157 & 15').

The strength of a pedagogical and research context where participants reflect upon the symbols in our literacy "lies in the creation of different and critical webs of meanings for judging the appropriateness of our cultural circumstances and in assuming a skeptical attitude towards our words, customs, traditions, and institutions" (Popkewitz, 1984, p. 193).

However, we must remember that the context is socially constituted in the classroom and any literacy event. As teachers and actors in literacy we must promote contexts of risk taking, creative, and socially interactive people who do not just follow the historical traditions of literacy use. We must establish an atmosphere of generative knowing where students pose the questions they want to answer and reflect upon the language which creates those answers. This notion of literacy has been called by many as critical literacy.

In this view, the value of cultural and literary texts resides not in their collective currency as the heralded virtues of society or disinterested ideals of truth, but in the manner in which they have been constructed out of a web of relationships shaped by different gendered, racial, economic, and historical contexts. As historically produced subjects, readers of texts are governed by different social and ideological formations which may or may not correspond to the formations present when the text was originally produced. Critical literacy focus, therefore, on the interests and assumptions that inform the generation of knowledge itself. From this perspective all texts, written, spoken, or otherwise represented, constitute ideological weapons capable of enabling certain groups to solidify their power through acts of linguistic hegemony. (McLaren, 1988, p. 218)
The notion of linguistic hegemony relates to the constraints that can be placed upon the acceptable uses and meanings of language when the authority is placed either in the text, or in a group of cultural experts, usually academicians who wish to maintain positions as the intelligencia.

The semiotic transactive nature of literacy asserts the infinite potential meaning for any text, and the dynamic presence of the human context and purpose in any signification.

The transfer and interactive literacy paradigms are closed and even unreflective of cultural and contextual constraints upon interpretation. The promote the "literacy myth" (Graff, 1987; Gee, 1988) that asserts that the acquiring of functional or cultural literacy as taught in our schools will allow the culturally deprived to rise to new social heights. Literacy alone cannot make this possible, especially the constrained literacy that is taught in the contexts of schools where "the perspectives, values, and assumptions built into school-based literacy practices are often left implicit, thus empowering those mainstream children who already have them and disempowering those children who do not and for whom they are never rendered visible, save in the negative evaluations they constantly receive" for their linguistic performance and comprehension of the text (Gee, 1988, p. 209).

Pedagogy in a transactive literacy paradigm focuses upon the creative power of language to examine and leave behind words that exclude the worlds of others, and to establish at each moment a
context of social interaction that highlights a diversity of interpretations to be negotiated in the ongoing resymbolization of the new culture in progress. Everyone becomes responsible for this progressing culture and the symbols that create its meaning. Everyone becomes responsible for the community. And in classroom and research settings, everyone ceases to be objects of instruction or inquiry and becomes subjects in control of the symbols used to create our world.

A transactive literacy paradigm asserts that values are an inescapable part of the symbolizations we make in our literate actions; therefore, acting socially upon the assumptions of a transactive literacy paradigm is a value choice.
Some Concluding Dynamic Triads

Not only has this paper grown to near book size, what began with a focus upon the meaning from reading a text has expanded to knowing yourself and the whole world. I have some possible explanations. First, the semiotic base of the transactive literacy paradigm recognizes language as only one sign system by which we symbolize meaning in our world; therefore, we must study language in concert with all the other ways to symbolize meaning in our world, in which a text is one occurrence of sign potential.

Second, the sociocultural-historical context of the text is part of the act of interpretation; therefore, literacy is only a part of our whole social practice. We must study the way in which the world is signified in social interaction, not just the linguistic aspects of life. If we focus narrowly on just literacy, we will not come to understand how literacy is symbolized in our everyday social life.

I would like to share a chart which characterizes the three literacy paradigms in relation to several aspects of importance to literacy research. I will not comment upon the aspects of the chart later, since it functions more for me as a resymbolization of the many thoughts that have already been created for me in writing and reading the earlier parts of this text.
### Comparison of Literacy Paradigms

<table>
<thead>
<tr>
<th>Assumptions of Paradigm</th>
<th>Transfer Literacy Paradigm</th>
<th>Interactive Literacy Paradigm</th>
<th>Transactive Literacy Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowing</td>
<td>Subjective—Objective</td>
<td>Subjective Objective</td>
<td>Subjective</td>
</tr>
<tr>
<td>thinking style</td>
<td>linear</td>
<td>cyclical</td>
<td>dynamic</td>
</tr>
<tr>
<td>knowledge</td>
<td>assimilated</td>
<td>constructed by decontextualized schemas &amp; processes</td>
<td>created by recontextualizing</td>
</tr>
<tr>
<td>truth (authority of meaning)</td>
<td>text or world</td>
<td>community of experts</td>
<td>the sign in context &amp; purpose</td>
</tr>
<tr>
<td>meaning potential</td>
<td>closed</td>
<td>constrained</td>
<td>open</td>
</tr>
<tr>
<td>context of meaning</td>
<td>decontextualized</td>
<td>various types of contexts</td>
<td>multiple simultaneous contexts</td>
</tr>
<tr>
<td>values</td>
<td>maintain status quo</td>
<td>adopt the status quo</td>
<td>responsible for value growth</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Assumptions of Paradigm</th>
<th>Transfer Literacy Paradigm</th>
<th>Interactive Literacy Paradigm</th>
<th>Transactive Literacy Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>reader</td>
<td>passive receiver</td>
<td>active replicator</td>
<td>active interpreter</td>
</tr>
<tr>
<td>purpose of reading</td>
<td>internalize</td>
<td>assimilate</td>
<td>generate beyond the text</td>
</tr>
<tr>
<td>reading ability</td>
<td>unitary ability in the reader</td>
<td>ability varies with type of text/context</td>
<td>reflect upon multiple symbolizations</td>
</tr>
<tr>
<td>reading situation</td>
<td>all text situations are the same</td>
<td>a syntax of processes and purposes</td>
<td>always a unique social situation</td>
</tr>
<tr>
<td>type of literacy</td>
<td>functional</td>
<td>cultural</td>
<td>critical</td>
</tr>
<tr>
<td>teaching</td>
<td>lecturing</td>
<td>scaffolding</td>
<td>mutual growth</td>
</tr>
<tr>
<td>learning</td>
<td>memorizing</td>
<td>reach equilibrium between inner &amp; outer worlds</td>
<td>creating new worlds in a continuing unique social context</td>
</tr>
<tr>
<td>researcher</td>
<td>objective expert (academician)</td>
<td>objective expert (academician)</td>
<td>responding participant</td>
</tr>
<tr>
<td>methodology</td>
<td>theory, hypotheses, controlled experiment (empirical-analytic)</td>
<td>theory, hypotheses, contextual setting (ethnography)</td>
<td>promote a diversity of symbolizations in context (symbolic and critical)</td>
</tr>
<tr>
<td>purpose of research</td>
<td>control the growth of human society--restrict change</td>
<td>generalize world for experts to change across contexts</td>
<td>serve human purposes for a better world in each unique context</td>
</tr>
</tbody>
</table>
I believe that each literacy paradigm represents a different way of thinking. In the transfer paradigm, the pattern of thought is linear:

Text → Reader

This linear thinking may signify the reproduction of the language in texts which also seems like a linear action in both oral and literate examples.

In the interactive paradigm, the pattern of thought is cyclical:

Text ↔ Reader

This parallels the successive approximations that a young person goes through as they reach the conventional and culturally valued forms of interpretation. This development can be considered biological (Piaget) or social in the form of scaffolding (Vygotsky, 1978); in either case, the young in literacy eventually cycle through their errors to reach the determinate perspective of the world.

In the transactive paradigm, the pattern of thought is dynamic and I borrow from the triad of signification in semiotics:

Text → Reader

Context
What is at the heart of the triadic dynamic is the interpretation and it is simultaneously created with the reader, text, and context. The illustration does not represent interacting forces or vectors; think of it as a three legged creature walking across your desk. In fact such three legged creatures can become dangerous; they can infect your entire way of thinking about each symbol you create. This is because with two, you still lack the perspective that three creates.

An example of the triadic infection throws the following three symbols into a dynamic that reflects for me the focus of literacy research:

Pragmatics

Social Interaction

Sign-systems

Pragmatics represents the human context and purpose that is simultaneously symbolized in social interaction with the signs we create for each other.

Finally, there is some compelling madness in me to throw the three paradigms, "transfer, interactive, and transactive," into a triad, or even "functional literacy, cultural literacy, and critical literacy." Popkewitz (1984) has even suggested that three research paradigms, "empirical-analytic, symbolic, and critical sciences" are operating in a necessary dynamic. I suppose empirical-analytic generalizes, the symbolic examines the
structures in creation, and critical critiques the impact of the structures on making a better human world.

Will the symbolizing ever end!?
References


Dumpty, Humpty (19) who says to Alice, "'When I use a word,' Humpty Dumpty said, in rather a scornful tone, 'it means just what I choose it to mean--neither more nor less.'" in *Through the Looking Glass* by Lewis Carroll.


Serebrin, Wayne. (1988). In an informal conversation in the hallway of Smith Research Center, Indiana University.


