There appear to be two basic theories about the relationship of written language to oral language and the relationship of writing to reading. The first theory views written language as a derivative of oral language and as an alternate but parallel form of oral language. The pedagogical implications of this model suggest that the problems of comprehension and composition are essentially the same for the reader and writer as for the listener and speaker. The second theory views written language as qualitatively different from oral language, differing both in its origins and in its purposes. According to this theory, writing, while initially dependent upon oral language while children learn to decode and encode written language, becomes increasingly less dependent on oral language and more influenced by written language itself. The theory seems to suggest that students' writing may gradually become more like the language they read, with continuous experience and instruction in reading and writing this language. The fact that poor writing is often poor precisely because it reflects the patterns, structures, and lexicon of poor oral language would suggest that composition instruction based on the first theory that views academic writing as a derivative of oral language is ill-advised. (HOD)
TOWARD A MEANINGFUL MODEL OF WRITTEN LANGUAGE DEVELOPMENT

Sandra Stotsky

There appear to be two basic theories about the relationship of written to oral language and the relationship of writing to reading. Because these two theories imply significantly different instructional practices, it is important for teachers to understand them clearly and completely. In this paper, I shall discuss the assumptions underlying each theory, outline the model of written language development that can be derived from each one, and indicate the pedagogical implications of each model. I shall conclude by proposing that only one theory is compatible with the assumptions and goals of teachers of academic writing and reading and recommend that they use a theoretical framework for both pedagogy and research that undergirds, not undermines, their very reason for being.

Figure 1 indicates the four language processes underlying literacy training. The circles in this figure (and in the others as well) represent the processes, and the squares the product of each process. The critical differences between these two theories hinge on the resolution to three issues: (1) how written language is related to oral language; (2) how the reader derives meaning from written texts; and (3) where the writer derives meaning from to produce written texts. Now let us examine how each theory addresses these issues.

In the first theory, which has several variations, written language is viewed as a derivative of oral language and as an alternate but parallel form of oral language (e.g., Moffett, 1968; 1976; Smith, 1971; 1975; Goodman, 1976). Joseph Greenberg writes in Psycholinguistics: "The linguist views writing...as a derivative

system whose symbols stand for units of the spoken language” (Osgood and Sebeck, 1969, p. 9). Smith (1975) writes: “spoken and written language…are alternative surface structure forms of a common underlying language…” (p. 350). Goodman (1976) writes: “(written language) must be seen as a different but parallel form to oral language” (p. 473). Moffett (1976) defines literacy as a “second layer of symbols, written words for spoken words” (p. 12). In this theory, oral language knowledge always serves as the basis for deriving meaning from written texts.

The beginning reader constructs meaning in print on the basis of meaning gained from prior experience with oral language and continues to do so forever afterwards. Thus, the critical assumptions underlying this theory are that oral language is primary, that the substance and form of written language are identical to the substance and form of oral language, and that oral language knowledge always structures the meaning derived from written texts.

The variations in the theory concern the mechanisms for gaining access to meaning in print. Figure 2 is Moffett’s version. In his version, reading is always the matching of print with speech (1976, p. 10), and readers always decode when comprehending written language. Even the experienced reader never quite goes from print to meaning directly. Moffett writes: “When people read, they are decoding print into speech at the same time they are decoding speech into thought” (1976, p. 122).

Figure 3 is Goodman’s and Smith’s version, although there is a slight difference between them. In Goodman’s version, as in Moffett’s version, beginning readers also need to decode (or recode) written language into speech (the dotted line indicates this process). But, eventually, with increasing reading experience, they go directly from print to meaning. It is important to note that even though developing readers come to comprehend written texts directly in this version, they
continue to read by predicting and confirming meaning in print on the basis of previous meaning gathered (p. 378); these previous meanings developed from their experiences with oral language. On the other hand, Smith argues against any decoding stage; the reader always goes directly from print to meaning. According to Smith, the beginning reader predicts meaning from the very beginning by sampling from whatever he determines are the distinctive features of "visual configurations." The teacher simply provides "information" to the beginning reader, telling him whether or not his predictions are correct (1971, pp. 228-229). As in Goodman's version, the reader's predictions are based on semantic/syntactic structures developed from his experience with oral language. (Hence, the loop through meaning derived from oral language experience in Figure 3.)

The critical feature in this theory is that the reader can never understand anything in his reading material that is of greater semantic/syntactic complexity than what he can understand aurally. The reader reads by decoding from print to speech or by predicting meaning on the basis of prior language knowledge. The written texts he reads with understanding may be less complex than or as complex as what he can understand aurally, but they can never be more complex. What he understands aurally sets a ceiling on (or gates) what he can understand in written texts. As Moffett asserts, the developing reader cannot read with understanding anything that he cannot understand if read aloud to him (1976, p. 123). In this model of written language development, the reader's level of comprehension of written language is always dependent on his level of comprehension of oral language. The development of his written language is at no point independent of the development of his oral language.3

Now let us examine writing development according to this theory. In Moffett's version, writing is always the transcription of inner or outer speech (1976, p.10). It derives at first from outer speech and, then, later, from inner speech, which
is developed primarily from oral language activities and is the internalization of outer speech (1976, p. 149). Because inner speech is derived primarily from outer speech, writing is therefore related to reading through the primary modes of speaking and listening at all levels of development. This means that the reader cannot produce semantic/syntactic forms and structures in his writing that are more complex than those he produces in his spoken language. What has been read cannot independently influence what is being written, nor can what is being written reciprocally influence inner speech, or, ultimately, meaning itself.

In Goodman's and Smith's versions, the language structures and forms the developing writer composes with and writes also cannot be of greater complexity than what he can understand aurally and produce orally. Why? Because the level of complexity in the oral language he has up to that point internalized determines the level of complexity in the language patterns and resources he can understand in his reading material and draw upon for his writing. Written language that is of greater complexity than his level of comprehension of oral language cannot influence his writing because his oral language knowledge always determines what he can understand and, hence, absorb from written texts.

What are the pedagogical implications of this model? Goodman and Moffett have spelled them out quite clearly. If formal written language is not qualitatively different from oral language, and if comprehension of written language depends on the level of comprehension of oral language, then, as Moffett asserts, the problems of comprehension and composition are essentially the same for the reader and writer as for the listener and speaker (1976, p. 149). Accordingly, reading and writing pose no learning problems that cannot be dealt with pedagogically through oral practice (1976, p. 11). Moffett suggests that there is no need to spend much time on reading and writing, since "less developed learners" can learn through oral practice the "bulk of what they need to know in order to
Concepts and ideas can be introduced through demonstration, experimentation, concrete illustration. Vocabulary can be developed orally in relation to these experiences. Then, and only then, is the child ready for the task of reading about the same concepts in the text. He reads them not so much to gain new concepts as to reinforce them (p. 486).

To conclude, in this model of written language development, growth occurs in reading and writing through growth in listening and speaking. Comprehension or composition of written language is always grounded in the comprehension or composition of oral language. When the comprehension and composition of oral language is postulated to derive from concrete experiences with the natural world, we will have a curriculum shaped by the assumptions of a cognitive developmental model. When the composition and comprehension of oral language is postulated to derive from innate linguistic structures, or a language acquisition device, we will have a curriculum shaped by the assumptions of a psycholinguistic model.

In another theory of written language development, suggested by the work of Vygotsky (1962, 1978), Bruner et al. (1966), Luria (1969), and Simon (1970), among others, written language is seen as qualitatively different from oral language, differing both in its origins and in its purposes. Vygotsky writes: "writing is a new and complex form of speech" (1978, p. 118). Luria writes: "written speech (differs) from oral speech in its origins and in its structural and functional features" (p. 141). Simon writes that written language does not arise as a "twin" to spoken language; it may share some common elements but requires other resources for its full development, using different means to achieve different goals (p. 323).

Bruner et al. suggest the following differences between written and oral language:

All the semantic and syntactic features that have been discussed - a rich and hierarchically organized vocabulary, as well as the syntactic embedding of labels - become necessary when one must communicate out of the context of immediate reference. It is precisely in this respect that written language differs from the spoken (p. 310).
We might perhaps call this theory an epistemological theory of written language development because it seeks to explain how we come to know the ideas and language of formal schooling. According to this theory, writing, while initially dependent upon oral language while children learn to decode and encode written language, becomes increasingly less dependent on oral language and more influenced by written language itself.

Figure 4 presents a preliminary model for this theory of written language development. In this model, the beginning reader also decodes print into speech and then structures meaning in print on the basis of meaning gained from experience with oral language. But in this model, both inner speech and inner listening develop, probably simultaneously—the former would seem to presuppose the latter (see Sokolov, 1969, p. 568). According to Luria, inner speech begins to develop in the pre-school years but develops even more after the onset of literacy training (p. 143).

Now let us examine Figure 5, a more fully developed model derived from this theory. In this model, as in the one in Figure 3, the beginning reader eventually goes directly from print to meaning. However, the critical feature in this model is that the reader's level of listening comprehension does not set limits on his level of reading comprehension. In this model, the reader can learn to understand written language that differs in quality and complexity from the oral language patterns and structures he has internalized. In order to account for the reader's ability to read written language that is richer and more dense than his spoken language, the model shows the direct influence of reading upon inner listening. Vygotsky writes:

As second-order symbols, written symbols function as designations for verbal ones. Understanding of written language is first effected through spoken language, but gradually this path is curtailed and spoken language disappears as the intermediate link. To judge from all the available evidence, written language becomes direct symbolism that is perceived in the same way as spoken language (1978, p. 116).
It is possible that the development of inner listening is the internal feature that facilitates the understanding of written language as "direct symbolism."

How does the developing reader come to understand written forms and patterns of language that differ from those he has heard? In general, in almost exactly the same way he has learned to understand greater complexity in oral language—through continuous exposure. Just as the language learner learns to understand greater complexity in oral language through frequent exposure to more complex oral language, so, too, does he learn to understand more complex written language through continuous exposure to more complex written language. New meanings are gradually incorporated through frequent experiences reading them; in other words, the beginning reader gradually absorbs the lexical richness and density of written language by means of the same process he uses for absorbing or internalizing more complex oral language.

How more precisely does the developing reader go beyond the limits of the level of his comprehension of oral language? This is not spelled out by Vygotsky or Luria. One may hypothesize that the development of children's ability to understand as "direct symbolism" written forms of language that are familiar to them enables them gradually to understand as direct symbolism written forms of language that are somewhat unfamiliar to them. These newly acquired semantic/syntactic forms and structures then provide the context for the developing reader to understand written forms of language that are even less familiar to them. In this way, written forms of language that differ from forms in the reader's oral language system function as new resources that serve to accelerate growth in understanding written language beyond the level of listening comprehension. It is in this way that literacy nourishes itself. Eventually, in this model, mature readers can absorb language visually that is far her and denser than spoken language. (Indeed, it is difficult to listen to language that is as dense and as rich as the mature language we can read.)
One may further hypothesize that frequent reading experiences gradually enable the developing reader to internalize written forms of language that differ in quality and density from the language he experiences aurally and, eventually, to use or reproduce them in his writing (i.e., to go directly from meaning to print). With enough experience and instruction in reading and writing at progressively more difficult levels, the mature writer can produce language that is far richer than the language he speaks. (Indeed, we cannot easily produce language orally that is as dense and as rich as the language we can write.) Note that by positing a source of influence on inner listening--and inner speech--that is not gated by the writer's level of listening comprehension, the model accounts for the writer's ability to use or produce language that is richer and more dense than his spoken language.

As suggested by Luria, the model also shows the direct influence of writing upon inner speech (p. 143). Luria writes:

Because it delays the direct appearance of speech connections, inhibits them, and increases requirements for the preliminary, internal preparation for the speech act, written speech produces a rich development of inner speech which could not take place in the earliest phases of development (p. 143).

Finally, the model shows that what one has written becomes in its own right a text to be read and "listened to" directly. Critical reading of one's own text during the revising process may become at least as great a stimulus for intellectual development as any mental activity as the reading of others' texts. Thus, at higher stages of development, the relationship between reading and writing may become reciprocal, each enhancing the other in different but equally profound ways.

It is important to note that in this model speech itself is affected by written language development. However, it is possible that the longer established habits of speech and the speed of speaking keeps speech less complex than writing at higher levels of development. The relative slowness of writing provides the writer
with the pause time needed to produce or work out forms of written language that the speed of speaking precludes.

What are the pedagogical implications of this model? The theory seems to suggest that students' writing may gradually become more like the language they read with continuous experience and instruction in reading and writing this language. Children grow up to speak like the adults in their communities because varying patterns and structures of oral language are a part of their natural language environment. The density and richness of written language is not a part of their natural language environment. Because the significant characteristics of mature written language are not present in oral language, they cannot be learned through oral language experience and practice. Teachers will need to provide students with regular exposure to increasing levels of textual density to help them absorb the lexical richness and density of written language. They will also have to provide them with regular practice in writing about their own ideas and what they are learning about the world around them to help them use this language and develop mastery of its resources.

Concluding Remarks

The fact that poor writing is often poor, precisely because it reflects the patterns, structures, and lexicon of oral language would suggest that composition teaching as a pedagogical discipline is ill-advised to base itself on a theory that views academic writing as a derivative of oral language. In so doing, the first theory fails to account for why academic writing differs from oral language and what the source of this difference is for the language learner. The first theory lacks explanatory adequacy because it does not seem to account for the knowledge the mature reading and writer has of the language and ideas he understands and uses. It does not seem to account for the development of the writer/reader's competence with academic discourse. In fact, I would suggest that as a guide for
curriculum planning and the teaching of academic discourse, the first theory of written language development not only impedes teachers' efforts but misdirects them as well.

On the other hand, I would like to propose that the second theory is compatible with the assumptions, goals, and activities of teachers of academic writing and reading. Accordingly, I would recommend that composition and reading teachers might serve themselves better by basing their discipline and their research on theoretical premises that do not sabotage the reason for their very existence but justify and support it. Further, it may be, in fact, more defensible to claim that at higher stages of language development oral language is derived from written language. Such a hypothesis could support research to explore the ways in which literacy training at its higher levels influences both oral language and intellectual development itself—and enables the mind to develop meanings and to create ideas that heretofore did not exist.
None of the figures presented in this paper has actually been constructed by the theorists under discussion. I have constructed them to match statements in their texts about the interrelationships among the four language processes underlying literacy training, using one basic outline (introduced in Figure 1) to show their similarities and differences.

The major difference between Goodman and Moffett at the level of beginning reading seems to be in the role each attaches to instruction in decoding. Goodman suggests that children learn decoding better without direct instruction; Moffett suggests that direct instruction is probably helpful, if not necessary (1968, p. 77).

The model of language development proposed by Sticht, Lawrence, Beck, Hauke, Kleinman, and James (1974) is also compatible with this theory. They, too, deny the possibility of qualitative differences between written and oral language and rule out the possibility that reading performance can ever exceed "auding" performance except in terms of amount of information obtained (p. 83). Their review of the literature suggests that after decoding ability is fully acquired, reading ability becomes comparable to auding ability by Grade 7 or 8—interestingly enough, the same grade levels at which the adult pattern of eye movements seems to be achieved, according to their review of eye-movement research.

Schema theory also seems to be compatible with this theory. Adams and Collins (1977) write: "A fundamental assumption of schem-theoretic approaches to language comprehension is that spoken or written text does not in itself carry meaning. Rather, a text only provides direction for the listener or reader as to how he should retrieve or construct the intended meaning from his own, previously acquired knowledge." Apparently, in schema theory, the reader never grapples with new ideas in order to work out their meaning, since the ideas he reads have no meaning independent of the meaning he imposes on them from prior language knowledge. This seems to suggest that readers cannot read to assimilate something new, only to re-cognize what they already know. This theory raises profound difficulty for composition teachers who are attempting to teach their students to write "explicit" and "autonomous" texts. By assumption, such texts cannot exist. On the basis of this theory, the essays a writer writes have no meaning independent of the meaning construed by a particular reader. This notion would seem to create havoc with the writer's relationship to his own text, especially his motivation to revise and his ability to judge the effects of his own revisions.
It is not at all clear from Goodman's writing how good readers learn to spell. But because good readers do learn, inductively at least, to decode written language, it is possible that they may learn inductively as well to encode written language. Therefore, the dotted lines in the lower half of Figure 3 suggest this possibility for Goodman's version of this model.

But it is even less clear how good readers ever learn to spell in Smith's writings. According to his theory, good readers do not read letter-by-letter but guess from context by sampling distinctive features; only poor readers are apt to read letter-by-letter. This might imply that good readers are poor spellers and that poor readers are good spellers. Yet, studies on the relationship between spelling and reading ability (see, for example, the review by Shrwin, 1969) have consistently found that good readers tend to be good spellers and that poor readers tend to be poor spellers. The evidence from these studies raises serious questions about the validity of Smith's theory about the reading process. His theory also leaves us with no way to account for the dialect speaker who reads and writes inflectional endings that conform to the conventions of written language but are not in his speech patterns.

This is probably why, in his curriculum, suggestions for revision usually come in the form of oral responses from others (preferably poor readers) in small-group sharing sessions. Thus, it is not surprising that only two pages in Moffett's 462-page text for Grades K-12 are indexed under Revision of writing (p. 486). Nor is there even a listing in the index for the topic Planning. The notion of a solitary writer, on his own, working out ideas and language during the act of rereading and revising what he has written seems to be an alien concept in Moffett's curriculum.

The original passage is as follows: "La langue écrite naît chez l'enfant; parturition douloureuse. Et elle ne naît pas soeur jumelle de la langue parlée, mais nouvelle Eve, elle lui emprunte ses éléments et non pas ses aliments car elle se nourrit à d'autres sources, ne vise pas les mêmes buts et dispose d'autres moyens techniques."
Figure 1

[Diagram showing the relationship between oral and written language]

Oral Language:
- Speech of others
  - Listening
  - Meaning
  - Speaking
  - One's own speech

Written Language:
- Written texts of others
  - Reading
  - Meaning
  - Writing
  - One's own written texts
FIGURE 2

ORAL LANGUAGE

SPEECH OF OTHERS

Listening: decoding auditory symbols

MEANING

INNER SPEECH

Speaking: encoding auditory symbols

ONE'S OWN OUTER SPEECH

WRITTEN LANGUAGE

WRITTEN TEXTS OF OTHERS

Reading: decoding visual symbols

Writing: encoding visual symbols

ONE'S OWN WRITTEN TEXTS
Figure 3

**Oral Language**

- **Speech of Others**
  - Listening or decoding auditory symbols
  - **Meaning**
    - Speaking or encoding auditory symbols
    - **One's Own Speech**

**Written Language**

- **Written Texts of Others**
  - Decoding visual symbols
  - **Meaning**
    - Encoding visual symbols
    - **Writing**
      - One's Own Written Texts
References


