TO SEE OUR TEXT AS OTHERS SEE IT:
TOWARD A SOCIAL SENSE OF COHERENCE

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Abstract

This paper critically examines the relevant literature on the cognitive processes underlying reading and writing and claims that the essential common point is "interpretation of written text." The concept of interpretation is then examined and it is argued that an understanding of the interpretive standards of the community one is writing for is a necessary prerequisite of the ability to produce coherent, reader-based prose. Some evidence suggests that both L1 and L2 writers gain this understanding through extensive reading, but it is argued that intensive reading and analysis of specific genres can also make an important contribution to writing ability.

Introduction

The phrase "social sense of coherence" expresses the dialectical nature of writing, the tension between the writer and audience. Put simply, it means that writers strike the best bargain they can as they (1) attempt to reconcile what they want to say with what they think their readers are willing to attend to, and (2) attempt to reconcile how they want to say it with the discoursal demands of the genre in which they are working (Swales & Horowitz, 1988). A difficult task, this, and one in which success is inconceivable without a clear understanding of the expectations of the community one is writing for.

How is this understanding acquired? A growing body of research, mainly in L1 but more recently in L2 as well, points toward reading as one key factor. For example, a number of researchers have found a positive correlation between the amount of pleasure reading that

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language learners do and their writing ability (Krashen, 1984 [a review of relevant studies]; Janopolous, 1986). Several writing theorists have gone even further and claimed that extensive reading is a necessary precondition for skilled writing. Krashen (1984), for one, claims that "it is reading that gives the writer the 'feel' for the look and texture of reader-based prose." Flower and Hayes (1980) state it this way: "a well-read person simply has a much larger and richer set of images of what a text can look like" (p. 28).

Implicit in this approach is the idea that reading and writing are closely related. Although the exact nature of that relation is still unclear, recent research (Folman, 1988; Sarig, 1988) suggests that the cognitive processes underlying the two have much in common, and it is the purpose of this paper to speculate on where that commonality may lie so that it may be exploited in the teaching of writing.

Construction of Meaning

The phrase that echoes through many recent descriptions of the cognitive processes of both readers (Beck & Carpenter, 1986) and writers (Emig, 1977; Murray, 1978; Raimes, 1985) is *construction of meaning*. The writer constructs meaning — and in the process is said to discover it — in the act of writing, and the reader re-constructs and re-discovers that meaning by bringing world knowledge to bear on the written symbols left behind by the writer as a "partial record of a discourse enacted by the writer and an imagined interlocutor" (Widdowson, 1986, pp. v-vi).

Although the text itself **physically** links the writer and reader, their shared interpretive abilities enable the text to serve its communicative function. Thus, in order to find what reading and writing have in common, it will not be fruitful to concentrate solely on text itself, for as Widdowson (1986) has stated, "the text, the actual appearance of signs on the page, does not itself contain meaning but provides the occasion for meaning to be achieved in the act of reading" (p. v). Rather, we must examine what is known about how texts and interpreters of texts — writers or readers — come into congruence (or fail to); that is, how a writer infuses a text with potential meaning and how a reader is able to realize that potential.

This somewhat abstract description can be brought into clearer focus by considering how much our ability to write depends in a practical

sense on the same abilities which enable us to interpret others' texts. Indeed, for most of us writing is a difficult and even painful process. Few of us know just how our words will look and feel until we see them, and we are sometimes surprised, pleasantly or otherwise, at the reverberations of meaning which thy set off in us. Though the words come out of us, before long they seem to take on a life of their own, and thereafter most of us expend great amounts of energy disciplining them to do our bidding. In that act, as we sense what our own writing means, as we interpret it, recast and re-interpret it, repeating this process until we are satisfied that we know what we want to say and that what we have written means just that, we are engaging the ability to interpret text which we gained by interpreting texts — that is, by reading.

Thus it appears that **interpretation of written text** — our own or others' — is the cognitive process that reading and writing have in common. Such interpretation is possible only when written linguistic symbols and human cognitive structures cohere; in other words, meaning can be constructed only to the degree that coherence exists between text and interpreter. Readers, who cannot change the texts they are presented with, must adapt themselves to those texts as best they can in order to carry on this process. Writers can manipulate text at will but risk alienating their readers if their sense of coherence is too idiosyncratic. Thus, coherence, which is usually construed as either text-based or reader-based (Johns, 1986), is in the present view seen neither as a fixed quality of text nor as a characteristic of a reader's schematic knowledge, but rather as the evolving relation of congruence between these two, as the goal toward which both readers and writers strive in their acts of interpretation. And, to bring the discussion around full circle, it seems clear that one can develop a social (as opposed to idiosyncratic) sense of coherence — see one's text as others will see it —only by becoming skilled in the interpretation of a wide variety of others' texts.

The next section of this paper will attempt to analyze the process of interpretation more closely. The discussion will be cast in such a way that it applies equally to the reading and writing process, but where there are clear differences between the two, these will be noted.

Interpretation

The concept of interpretation as used in the previous discussion rests on the assumption that meanings are "derived" from rather than "asserted" by the text (Keenan, 1978, p. 23). Since interpretation requires the active construction of meaning (as opposed to the passive reception of meaning), this further implies that there are "gaps" between the text itself and the meanings derived from it. The bridging of these gaps is called "inferencing," and interpretation can be seen as the act of using the information gained by inferencing to create a more and more complete picture of the text, or, in the case of writing, to understand what must be added to it or changed in order to create a more complete picture for the intended reader.

If, indeed, the process of interpretation is totally dependent on as potentially unreliable a process as inferencing, and if, as a consequence thereof, different readers interpret a given text in various ways (which we know to be the case), we are faced with the very practical question of where to draw the line between acceptable and unacceptable interpretations. As teachers we face this problem whenever we judge the correctness of our students' interpretations of class readings or the interpretability of student-produced texts. Widdowson (1986) highlights the reading side of this problem when he says that "having rejected the notion that reading is only a matter of discovering meanings which are linguistically encoded in the text, it will not do to go to the other extreme and claim that reading is a matter of unconstrained interpretation subject only to the whims of the individual" (p. vi).

This solution is not entirely satisfactory because it assumes that the "correct" interpretation of a text is the one that conforms most closely to the writer's original intention. Because it makes this assumption, it fails to shed light on the interpretation — or failure of interpretation — of those texts which are ambiguous, either intentionally (certain types of literature or diplomatic discourse) or through poor construction (those written by unskilled native or non-native writers, text written by children, etc.). It also fails to account for those odd but not rare cases when a reader reaches a correct conclusion (perhaps as indicated by answering a test question correctly) based on a highly idiosyncratic understanding of a text.

The crux of the problem is this: Given two interpretations of a text, need we appeal to a writer's intentions to decide which is correct? How

do we deal with the situation in which we intuitively feel that there is more than one reasonable interpretation? And how do we justify "overruling" our student-writers who claim that their text means one thing when we are quite sure it means another. . . or nothing at all?

A possible answer to these questions comes from Perelman and Olbrechts-Tyteca (1969), who discuss a similar problem in argumentation. They distinguish between two types of arguments: mathematical ones, in which the conclusion follows deductively from the propositions and of which it can be said that if two people disagree about the validity of the conclusion, one of those people is wrong; and those arguments which one more commonly encounters in real life, where intelligent, well-informed people come to different conclusions based on the same evidence.

Adapting this idea, we can say that there is a continuum of inference and interpretation, at one end of which are those inferences (which generally correspond to lower levels of meaning) on which there will be near unanimity of agreement among some community of readers for whom a given text was intended, and at the other end of which are those inferences (which generally correspond to higher levels of meaning) for which disagreement would be the norm. An example of the lower extreme would be the meaning of a pronoun reference in an academic text; an example of the latter, an interpretation of the symbolism in some difficult literary work.

This continuum is closely related to the notion of inter-rator reliability, a measure of the level of agreement among a group of readers chosen to interpret a text or series of texts. This level varies with the type of text and interpretation required, but it is rarely 1.0, perfect agreement. Likewise, every inference or act of interpretation falls somewhere on the **continuum of reader intersubjectivity**. In the case of reading, this notion allows us to make judgments about the relative or intersubjective correctness of inferences and interpretations without having to make any assumptions about what went on at some time in the past in the mind of a writer. In the case of writing, it clarifies what is meant by a "social" sense of coherence: the internalization by a writer of the interpretive standards of the community he or she is writing for.

Up to this point, this picture of interpretation has been presented: The interpreter constructs meaning by drawing inferences from written symbols (and, in the case of a writer, additionally by changing those symbols to suit his or her evolving intention). In the case of a skilled and

qualified reader dealing with a well-constructed text in a familiar genre, the great majority of those inferences will be in agreement with those made by other, similarly qualified members of the reading community, but there may be some which are not; the proportion of agreement to disagreement would tend to be reversed as the reader's skill or familiarity with the genre or subject decreases, or as the text becomes more ambiguous. If, based on these inferences, the reader is able to construct a personally satisfying picture of the text as a whole, we can say that interpretation has taken place, and though we can not say whether that picture corresponds to the writer's original intention, we can involve the notion of intersubjectivity in order to judge in a relativistic way whether that interpretation is more or less correct. Likewise, in the case of a competent writer attempting to create an unambiguous text, the creative and interpretive processes go hand-in-hand until (ideally) the text both matches the writer's intention and conforms to the expectations of his or her community of readers.

In speaking of the interpretive standards of the community a writer is writing for, one is speaking at least in part of the knowledge which that community brings to the interpretive process. The role of knowledge in this process is the subject of the next section of this paper, in which the interpretive process is examined in greater detail using some insights gained from the study of artificial intelligence.

The Role of Knowledge

We begin with the idea that interpretation is a problem-solving process. By "solution" in this case we mean finding satisfactory matches between the highly patterned data coming into the brain from the eye and the patterns of knowledge already stored in long-term memory. In other words, the text input sets off searches for pattern matches through the huge data base of knowledge of the brain. It is clear that in order for these searches to take place in real time, they cannot be random; indeed, "the key to intelligent problem solving lies in reducing the random search for solutions" (Lenat, 1984, p. 152).

What makes these searches possible is, first, the non-random arrangement of knowledge in the brain, and second, the power of the searching "program." The term most commonly used to describe the organized webs of associations which characterize the storage of knowledge in long-term memory is "schemata" (Bartlett, 1932; Neisser,

1976). Text input activates the search for the most appropriate schemata through a powerful searching program, the seat of meta-linguistic knowledge, which services the data base in at least the following ways:

1. It receives raw input from the input device (the eyes) and converts it into a usable form, perhaps by extracting elements from the raw input which are similar to the descriptors used to search a computer data base.

2. It searches the present data base to find the schematic configuration(s) which fit(s) the converted input most closely.

3. It sets levels of probability for deciding if input fits a given schematic configuration.

4. It keeps track of possible "candidate" schemata if the input is still insufficient to make a determination of the most suitable one(s).

5. It directs the search for new raw input to confirm or disconfirm the appropriacy of "candidate" schemata.

6. It decides the degree of fit of input to schemata.

7. It decides, in light of #6, whether or not to modify the existing data base and whether or not to modify itself (in the sense of forming new meta-linguistic rules, creating new searching strategies, setting new probabilities, etc.).

8. It acts recursively, combining the results of lower level searches with more raw input from the input device in order to perform new, higher level searches.

9. It monitors when the process has broken down due to lack of sufficient input, lack of a powerful enough searching strategy, or lack of a sufficiently large data base.

In the act of interpretation, then, text input is converted into instructions for searching and potentially modifying a data base. In the case of reading, to achieve global comprehension of the text, this process spirals upward recursively in the search for higher and higher level schemata which fit longer and longer stretches of text. It also spirals downward, directing the input mechanism to search for a limited number of possible completions of partially established patterns — this is what is meant when we say that schemata create expectations. In the process, schemata are modified as new information or new relations among existing information are added to the data base. In the case of writing, the same process takes place with the obvious difference that the text itself is fluid. From descriptions of the writing process, however, it is clear that as crucial a difference as this is, it does not

overshadow the fact that a writer making decisions about the direction of an evolving text does substantially the same things that a reader does in attempting to comprehend one: in both cases meaning is discovered as it is constructed, and in both cases, the ultimate goal is to achieve coherence between an interpreter and a text.

Pedagogical Implications

Swales (1983) provides an example of how "reading-into-writing" works in the classroom. He analyzed a sample of 48 introductions to research articles from various fields, from which emerged a common pattern of four discourse "moves": establishing the field, summarizing previous research, preparing for the present research, and introducing the present research. He further elaborated the model by showing alternative ways the work of each move can be accomplished and by listing some of the common lexical and grammatical patterns found in each move.

He then produced classroom materials designed to familiarize students with these patterns of discourse. These exercises included "colour-coding. . . (in various degrees of detail) the structure of Article Introductions," "jumbled introductions," some with the moves and others with the sentences out of order, and specific language work on some of the structures commonly found in each move. These exercises led to the actual writing of introductions, first as "cloze exercises on whole introductions," then "inserting references into introductory arguments," and finally writing introductions "based on library research cards plus title or abstract" (pp. 197-198).

Swales' work clearly illustrates how reading and writing can — and indeed must — be taught together if students are to internalize the standards of the "rhetorical community" (Purves, 1986, p. 39) they are writing for. Not all such work need be as elegant as Swales' text analysis, however. Teachers can do a great deal of good simply by helping students become aware of the need to "see their texts as others see them" and by introducing the "reading-in-writing" paradigm into their classrooms.

Many currently popular techniques in the teaching of writing are compatible with the first goal. Emphasis on revision and on peer editing — a "real" set of outside eyes — are surely in line with it, though teachers should not forget the important role they play as readers with

much more highly developed writing schemata than their students. Encouraging students to let their writing "sit" for a few days before revising it also heightens their ability to see their text as others see it.

At an even more basic level, teachers can work within their institutions to promote the integration of reading and writing. Unfortunately, there still seems to be a strong tendency to think of reading and writing as separate skills and to teach them in separate classes. Though there may be good reason to devote a separate class to the teaching of reading strategies, there is no justification for teaching writing without a strong "reading for writing" component. Readings should serve two main functions in a writing class, as sources of facts and ideas (Horowitz, 1986) and as models of the type of writing students will be expected to do. Unfortunately, it is the rare writing textbook or even rhetorical reader which presents students with models of writing **based on the types of texts they will eventually be required to produce** (other than personal essays) along with exercises designed specifically to build up the schematic knowledge of genre which leads to critical reading and, in turn, to successful writing. This may simply be a reflection of the economic realities of textbook publishing, but whatever the reason, it is up to teachers to make up for this lack by finding out what types of texts their students will have to produce and by designing exercises to help them become informed, critical readers of their own writing.

Conclusion

By careful analysis of the tasks our students will eventually face and the texts they will have to read and produce, by judicious selection and imaginative creation of classroom materials, and by acceptance of one's role as the students' window on the rhetorical community they are soon to join, teachers of reading and writing can guide their students to the goal of all reading and writing instruction — a social sense of coherence. There is no more we can do, and our students deserve no less.

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References

Bartlett, F. (1932). *Remembering.* Cambridge: Cambridge University Press.

Beck, I. L., & Carpenter, P. A. (1986). Cognitive approaches to understanding reading. *American Psychologist, 41,* 1098-1105.

Emig, J. (1977). Writing as a mode of learning. *College Composition and Communication, 28,* 122-128.

Flower, L., & Hayes, J. (1980). The cognition of discovery: Defining a rhetorical problem. *College Composition and Communication, 31,* 21-32.

Folman, S. (1988). Towards an EFL reading-writing model of academic learning. Paper presented at the 22nd Annual TESOL Convention, Chicago, IL.

Horowitz, D. (1986). What professors actually require: Academic tasks for the ESL classroom. *TESOL Quarterly, 20,* 445-462.

Janopoulos, M. (1986). The relationship of pleasure reading and second language writing proficiency. *TESOL Quarterly, 20,* 763-768.

Johns, A. M. (1986). Coherence and academic writing: Some definitions and suggestions for teaching. *TESOL Quarterly, 20,* 247-265.

Keenan, J. M. (1978). Psychological issues concerning implication: Comments on "Psychology of pragmatic implication: Information processing between the lines" by Harris and Monaco. *Journal of Experimental Psychology: General, 107,* 23-27.

Krashen, S. D. (1984). *Writing.* Oxford: Pergamon.

Lenat, D. B. (1984). Computer software of intelligent systems. *Scientific American, 251,* 152-160.

Murray, D. M. (1978). Internal revision: A process of discovery. In C. R. Cooper & L. Odell (eds.), *Research on composing: Points of departure* (pp. 85-103). Urbana, IL: National Council of Teachers of English.

Neisser, U. (1976). *Cognition and reality.* San Francisco: W. H. Freeman.

Perelman, C., & Olbrechts-Tyteca, L. (1969). *The new rhetoric: A treatise on argumentation* (J. Wilkinson & P. Weaver, Trans.). Notre Dame and London: University of Notre Dame Press.

Purves, A. C. (1986). Rhetorical communities, the international student, and basic writing. *Journal of Basic Writing, 5,* 38-51.

Raimes, A. (1985). What unskilled ESL students do as they write: A classroom study of composing. *TESOL Quarterly, 19,* 229-258.

Sarig, G. (1988). Composing a study-summary: A reading-writing encounter. Paper presented at the 22nd Annual TESOL Convention, Chicago, IL.

Swales, J. (1983). Developing materials for writing scholarly introductions. In R. R. Jordan (ed.), *Case studies in ELT* (pp. 188-200). London: Collins.

Swales, J., & Horowitz, D. (1988). A genre-based approach to ESL materials. Paper presented at the 22nd Annual TESOL Convention, Chicago, IL.

Widdowson, H. G. (1986). Foreword. In S. Salimbene, *Interactive reading* (pp. v-vi). Rowley, MA: Newbury House.