The Study of Error

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It is curious, I think, that with all the current interest in "Basic Writing," little attention has been paid to the most basic question: What is it? What is "basic writing," that is, if the term is to refer to a phenomenon, an activity, something a writer does or has done, rather than to a course of instruction? We know that across the country students take tests of one sort or another and are placed in courses that bear the title, "Basic Writing." But all we know is that there are students taking 'courses. We know little about their performance as writers, beyond the bald fact that they fail to do what other, conventionally successful, writers do. We don't, then, have an adequate description of the variety of writing we call "basic."

On the other hand, we have considerable knowledge of what Basic Writing courses are like around the country, the texts that are used, the approaches taken. For some time now, "specialists" have been devising and refining the technology of basic or developmental instruction. But these technicians are tinkering with pedagogies based on what? At best on models of how successful writers write. At worst, on old text-book models that disregard what writers actually do or how they could be said to learn, and break writing conveniently into constituent skills like "word power," "sentence power," and "paragraph power." Neither pedagogy is built on the results of any systematic inquiry into what basic writers do when they write or into the way writing skills develop for beginning adult writers. Such basic research has barely begun. Mina Shaughnessy argued the case this way:

> Those pedagogies that served the profession for years seem no longer appropriate to large numbers of students, and their inappropriateness lies largely in the fact that many of our students . . . are adult beginners and depend as students did not depend in the past upon the classroom and the teacher for the acquisition of the skill of writing.

If the profession is going to accept responsibility for teaching this kind of

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student, she concludes, "We are committed to research of a very ambitious sort."[1]

Where might such research begin, and how might it proceed? We must begin by studying basic writing itself—the phenomenon, not the course of instruction. If we begin here, we will recognize at once that "basic" does not mean simple or childlike. These are beginning writers, to be sure, but they are not writers who need to learn to use language. They are writers who need to learn to command a particular variety of language—the language of a written, academic discourse—and a particular variety of language use—writing itself. The writing of a basic writer can be shown to be an approximation of conventional written discourse; it is a peculiar and idiosyncratic version of a highly conventional type, but the relation between the approximate and the conventional forms is not the same as the relation between the writing, say, of a 7th grader and the writing of a college freshman.

Basic writing, I want to argue, is a variety of writing, not writing with fewer parts or more rudimentary constituents. It is not evidence of arrested cognitive development, arrested language development, or unruly or unpredictable language use. The writer of this sentence, for example, could not be said to be writing an "immature" sentence, in any sense of the term, if we grant her credit for the sentence she intended to write:

> The time of my life when I learned something, and which resulted in a change in which I look upon life things. This would be the period of my life when I graduated from Elementary school to High school.

When we have used conventional T-unit analysis, and included in our tabulations figures on words/clause, words/T-unit and clauses/T-unit that were drawn from "intended T-units" as well as actual T-units, we have found that basic writers do not, in general, write "immature" sentences. They are not, that is, 13th graders writing 7th grade sentences. In fact, they often attempt syntax whose surface is more complex than that of more successful freshman writers. They get into trouble by getting in over their heads, not only attempting to do more than they can, but imagining as their target a syntax that is *more* complex than convention requires. The failed sentences, then, could be taken as stages of learning rather than the failure to learn, but also as evidence that these writers are using writing as an occasion to learn.

It is possible to extend the concept of "intentional structures" to the analysis of complete essays in order to determine the "grammar" that governs the idiosyncratic discourse of writers imagining the language and conventions of academic discourse in unconventional ways. This method of analysis is certainly available to English teachers, since it requires a form of close reading, paying attention to the language of a text in order to determine not only what a writer says, but how he locates and articulates meaning. When a basic writer violates our expectations, however, there is a tendency to dismiss the text as non-writing, as meaningless or imperfect writing. We have not read as we

have been trained to read, with a particular interest in the way an individual style confronts and violates convention. We have read, rather, as policemen, examiners, gate-keepers. The teacher who is unable to make sense out of a seemingly bizarre piece of student writing is often the same teacher who can give an elaborate explanation of the "meaning" of a story by Donald Barthelme or a poem by e. e. cummings. If we learn to treat the language of basic writing *as* language and assume, as we do when writers violate our expectations in more conventional ways, that the unconventional features in the writing are evidence of intention and that they are, therefore, meaningful, then we can chart systematic choices, individual strategies, and characteristic processes of thought. One can read Mina Shaughnessy's *Errors and Expectations* as the record of just such a close reading.[2]

There is a style, then, to the apparently bizarre and incoherent writing of a basic writer because it is, finally, evidence of an individual using language to make and transcribe meaning. This is one of the axioms of error analysis, whether it be applied to reading (as in "miscue analysis"), writing, or second-language learning. An error (and I would include errors beyond those in the decoding or encoding of sentences) can only be understood as evidence of intention. They are the only evidence we have of an indivudal's idiosyncratic way of using the language and articulating meaning, of imposing a style on common material. A writer's activity is linguistic and rhetorical activity; it can be different but never random. The task for both teacher and researcher, then, is to discover the grammar of *that* coherence, of the "idiosyncratic dialect" that belongs to a particular writer at a particular moment in the history of his attempts to imagine and reproduce the standard idiom of academic discourse.[3]

All writing, of course, could be said to only approximate conventional discourse; our writing is never either completely predictable or completely idiosyncratic. We speak our own language as well as the language of the tribe and, in doing so, make concessions to both ourselves and our culture. The distance between text and conventional expectation may be a sign of failure and it may be a sign of genius, depending on the level of control and intent we are willing to assign to the writer, and depending on the insight we acquire from seeing convention so transformed. For a basic writer the distance between text and convention is greater than it is for the run-of-the-mill freshmen writer. It may be, however, that the more talented the freshman writer becomes, the more able she is to increase again the distance between text and convention. We are drawn to conclude that basic writers lack control, although it may be more precise to say that they lack choice and option, the power to make decisions about the idiosyncracy of their writing. Their writing is not, however, truly uncontrolled. About the actual distance from text to convention for the basic writer, we know very little. We know that it will take a long time to traverse—generally the greater the distance the greater the time and energy required to close the gap. We know almost noth-

ing about the actual sequence of development—the natural sequence of learning—that moves a writer from basic writing to competent writing to good writing. The point, however, is that "basic writing" is something our students *do* or *produce;* it is not a kind of writing we teach to backward or unprepared students. We should not spend our time imagining simple or "basic" writing tasks, but studying the errors that emerge when beginning writers are faced with complex tasks.

The mode of analysis that seems most promising for the research we need on the writer's sequence of learning is error analysis. Error analysis provides the basic writing teacher with both a technique for analyzing errors in the production of discourse, a technique developed by linguists to study second language learning, and a theory of error, or, perhaps more properly, a perspective on error, where errors are seen as (1) necessary stages of individual development and (2) data that provide insight into the idiosyncratic strategies of a particular language user at a particular point in his acquisition of a target language. Enough has been written lately about error analysis that I'll only give a brief summary of its perspective on second language or second dialect acquisition.[4] I want to go on to look closely at error analysis as a method, in order to point out its strengths and limits as a procedure for textual analysis.

George Steiner has argued that all acts of interpretation are acts of translation and are, therefore, subject to the constraints governing the passage from one language to another.[5] All our utterances are approximations, attempts to use the language of, say, Frank Kermode or the language, perhaps, of our other, smarter, wittier self. In this sense, the analogy that links developmental composition instruction with second language learning can be a useful one—useful that is, if the mode of learning (whatever the "second" language) is writing rather than speaking. (This distinction, I might add, is not generally made in the literature on error analysis, where writing and speech are taken as equivalent phenomena.) Error analysis begins with the recognition that errors, or the points where the actual text varies from a hypothetical "standard" text, will be either random or systematic. If they are systematic in the writing of an individual writer, then they are evidence of some idiosyncratic rule system—an idiosyncratic grammar or rhetoric, an "interlanguage" or "approximative system."[6] If the errors are systematic across all basic writers, then they would be evidence of generalized stages in the acquisition of fluent writing for beginning adult writers. This distinction between individual and general systems is an important one for both teaching and research. It is not one that Shaughnessy makes. We don't know whether the categories of error in *Errors and Expectations* hold across a group, and, if so, with what frequency and across a group of what size.

Shaughnessy did find, however, predictable patterns in the errors in the essays she studied. She demonstrated that even the most apparently incoherent writing, if we are sensitive to its intentional structure, is evidence of

systematic, coherent, rule-governed behavior. Basic writers, she demonstrated, are not performing mechanically or randomly but making choices and forming strategies as they struggle to deal with the varied demands of a task, a language, and a rhetoric. The "systems" such writing exhibits provide evidence that basic writers *are* competent, mature language users. Their attempts at producing written language are not hit and miss, nor are they evidence of simple translation of speech into print. The approximate systems they produce are evidence that they can conceive of and manipulate written language as a structured, systematic code. They are "intermediate" systems in that they mark stages on route to mastery (or, more properly, on route to conventional fluency) of written, academic discourse.

This also, however, requires some qualification. They *may* be evidence of some transitional stage. They may also, to use Selinker's term, be evidence of "stabilized variability," where a writer is stuck or searching rather than moving on toward more complete approximation of the target language.[7] A writer will stick with some intermediate system if he is convinced that the language he uses "works," or if he is unable to see errors *as* errors and form alternate hypotheses in response.

Error analysis begins with a theory of writing, a theory of language production and language development, that allows us to see errors as evidence of choice or strategy among a range of possible choices or strategies. They provide evidence of an individual style of using the language and making it work; they are not a simple record of what a writer failed to do because of incompetence or indifference. Errors, then, are stylistic features, information about *this* writer and *this* language; they are not necessarily "noise" in the system, accidents of composing, or malfunctions in the language process. Consequently, we cannot identify errors without identifying them in context, and the context is not the text, but the activity of composing that presented the erroneous form as a possible solution to the problem of making a meaningful statement. Shaughnessy's taxonomy of error, for example, identifies errors according to their source, not their type. A single type of error could be attributed to a variety of causes. Donald Freeman's research, for example, has shown that, "subject-verb agreement . . . is a host of errors, not one." One of his students analyzed a "large sample of real world sentences and concluded that there are at least eight different kinds, most of which have very little to do with one another."[8]

Error analysis allows us to place error in the context of composing and to interpret and classify systematic errors. The key concept is the concept of an "interlanguage" or an "intermediate system," an idiosyncratic grammar and rhetoric that is a writer's approximation of the standard idiom. Errors, while they can be given more precise classification, fall into three main categories: errors that are evidence of an intermediate system; errors that could truly be said to be accidents, or slips of the pen as a writer's mind rushes ahead faster than his hand; and, finally, errors of language transfer, or, more commonly,

dialect interference, where in the attempt to produce the target language, the writer intrudes forms from the "first" or "native" language rather than inventing some intermediate form. For writers, this intrusion most often comes from a spoken dialect. The error analyst is primarily concerned, however, with errors that are evidence of some intermediate system. This kind of error occurs because the writer *is* an active, competent language user who uses his knowledge that language is rule-governed, and who uses his ability to predict and form analogies, to construct hypotheses that can make an irregular or unfamiliar language more manageable. The problem comes when the rule is incorrect or, more properly, when it is idiosyncratic, belonging only to the language of this writer. There is evidence of an idiosyncratic system, for example, when a student adds inflectional endings to infinitives, as in this sentence, "There was plenty the boy had to *learned* about birds." It also seems to be evident in a sentence like this: "This assignment calls on *choosing* one of my papers and making a last draft out of it." These errors can be further sub-divided into those that are in flux and mark a fully transitional stage, and those that, for one reason or another, become frozen and recur across time.

Kroll and Schafer, in a recent *CCC* article, argue that the value of error analysis for the composition teacher is the perspective it offers on the learner, since it allows us to see errors "as clues to inner processes, as windows into the mind."[9] If we investigate the pattern of error in the performance of an individual writer, we can better understand the nature of those errors and the way they "fit" in an individual writer's program for writing. As a consequence, rather than impose an inappropriate or even misleading syllabus on a learner, we can plan instruction to assist a writer's internal syllabus. If, for example, a writer puts standard inflections on irregular verbs or on verbs that are used in verbals (as in "I used to runned"), drill on verb endings will only reinforce the rule that, because the writer is overgeneralizing, is the source of the error in the first place. By charting and analyzing a writer's errors, we can begin in our instruction with what a writer *does* rather than with what he fails to do. It makes no sense, for example, to impose lessons on the sentence on a student whose problems with syntax can be understood in more precise terms. It makes no sense to teach spelling to an individual who has trouble principally with words that contain vowel clusters. Error analysis, then, is a method of diagnosis.

Error analysis can assist instruction at another level. By having students share in the process of investigating and interpreting the patterns of error in their writing, we can help them begin to see those errors as evidence of hypotheses or strategies they have formed and, as a consequence, put them in a position to change, experiment, imagine other strategies. Studying their own writing puts students in a position to see themselves as language users, rather than as victims of a language that uses them.

This, then, is the perspective and the technique of error analysis. To inter-

pret a student paper without this frame of reference is to misread, as for example when a teacher sees an incorrect verb form and concludes that the student doesn't understand the rules for indicating tense or number. I want, now, to examine error analysis as a procedure for the study of errors in written composition. It presents two problems. The first can be traced to the fact that error analysis was developed for studying errors in spoken performance.[10] It can be transferred to writing only to the degree that writing is like speech, and there are significant points of difference. It is generally acknowledged, for example, that written discourse is not just speech written down on paper. Adult written discourse has a grammar and rhetoric that is different from speech. And clearly the activity of producing language is different for a writer than it is for a speaker.

The "second language" a basic writer must learn to master is formal, written discourse, a discourse whose lexicon, grammar, and rhetoric are learned not through speaking and listening but through reading and writing. The process of acquisition is visual not aural. Furthermore, basic writers do not necessarily produce writing by translating speech into print (the way children learning to write would); that is, they must draw on a memory for graphemes rather than phonemes. This is a different order of memory and production from that used in speech and gives rise to errors unique to writing.

Writing also, however, presents "interference" of a type never found in speech. Errors in writing may be caused by interference from the act of writing itself, from the difficulty of moving a pen across the page quickly enough to keep up with the words in the writer's mind, or from the difficulty of recalling and producing the conventions that are necessary for producing print rather than speech, conventions of spelling, orthography, punctuation, capitalization and so on. This is not, however, just a way of saying that writers make spelling errors and speakers do not. As Shaughnessy pointed out, errors of syntax can be traced to the gyrations of a writer trying to avoid a word that her sentence has led her to, but that she knows she cannot spell.

The second problem in applying error analysis to the composition classroom arises from special properties in the taxonomy of errors we chart in student writing. Listing varieties of errors is not like listing varieties of rocks or butterflies. What a reader finds depends to a large degree on her assumptions about the writer's intention. Any systematic attempt to chart a learner's errors is clouded by the difficulty of assigning intention through textual analysis. The analyst begins, then, by interpreting a text, not by describing features on a page. And interpretation is less than a precise science.

Let me turn to an example. This is part of a paper that a student, John, wrote in response to an assignment that asked him to go back to some papers he had written on significant moments in his life in order to write a paper that considered the general question of the way people change:

> This assignment call on chosing one of my incident making a last draft out
> of it. I found this very differcult because I like them all but you said I had

> to pick one so the Second incident was decide. Because this one had the
> most important insight to my life that I indeed learn from. This insight
> explain why adulthood mean that much as it dose to me because I think it
> alway influence me to change and my outlook on certain thing like my
> point-of-view I have one day and it might change the next week on the
> same issue. So in these frew words I going to write about the incident
> now. My exprience took place in my high school and the reason was out
> side of school but I will show you the connection. The situation took place
> cause of the type of school I went too. Let me tell you about the situtation
> first of all what happen was that I got suspense from school. For thing
> that I fell was out of my control sometime, but it taught me alot about
> respondability of a growing man. The school suspense me for being late
> ten time. I had accummate ten dementic and had to bring my mother to
> school to talk to a conselor and Prinpicable of the school what when on at
> the meet took me out mentally period.

One could imagine a variety of responses to this. The first would be to
form the wholesale conclusion that John can't write and to send him off to a
workbook. Once he had learned how to write correct sentences, then he
could go on to the business of actually writing. Let me call this the "old style"
response to error. A second response, which I'll call the "investigative ap-
proach," would be to chart the patterns of error in this particular text. Of the
approximately 40 errors in the first 200 words, the majority fall under four
fairly specific categories: verb endings, noun plurals, syntax, and spelling.
The value to pedagogy is obvious. One is no longer teaching a student to
"write" but to deal with a limited number of very specific kinds of errors,
each of which would suggest its own appropriate response. Furthermore, it is
possible to refine the categories and to speculate on and organize them ac-
cording to cause. The verb errors almost all involve "s" or "ed" endings,
which could indicate dialect interference or a failure to learn the rules for
indicating tense and number. It is possible to be even more precise. The
passage contains 41 verbs; only 17 of them are used incorrectly. With the
exception of four spelling errors, the errors are all errors of inflection and,
furthermore, these errors come only with regular verbs. There are no errors
with irregular verbs. This would suggest, then, that when John draws on
memory for a verb form, he gets it right; but when John applies a rule to
determine the ending, he gets it wrong.

The errors of syntax could be divided into those that might be called punc-
tuation errors (or errors that indicate a difficulty perceiving the boundaries of
the sentence), such as

> Let me tell you about the situation first of all what happen was that I got
> suspense from school. For thing that I fell was out of my control some-
> time, but it taught me alot about respondability of a growing man.

and errors of syntax that would fall under Shaughnessy's category of consoli-
dation errors,

> This insight explain why adulthood mean that much as it dose to me

> because I think it alway influénce me to change and my outlook on cer-
> tain thing like my point-of-view I have one day and it might change the
> next week on the same issue.

One would also want to note the difference between consistent errors, the
substitution of "situation" for "situation" or "suspense" for "suspended," and
unstable ones, as, for example, when John writes "cause" in one place and
"because" in another. In one case John could be said to have fixed on a rule;
in the other he is searching for one. One would also want to distinguish
between what might seem to be "accidental" errors, like substituting "frew"
for "few" or "when" for "went," errors that might best be addressed by teach-
ing a student to edit, and those whose causes are deeper and require time and
experience, or some specific instructional strategy.

I'm not sure, however, that this analysis provides an accurate representa-
tion of John's writing. Consider what happens when John reads this paper out
loud. I've been taping students reading their own papers, and I've developed
a system of notation, like that used in miscue analysis,[11] that will allow me to
record the points of variation between the writing that is on the page and the
writing that is spoken, or, to use the terminology of miscue analysis, between
the expected response (ER) and the observed response (OR). What I've
found is that students will often, or in predictable instances, substitute cor-
rect forms for the incorrect forms on the page, even though they are gener-
ally unaware that such a substitution was made. This observation suggests the
limits of conventional error analysis for the study of error in written compo-
sition.

I asked John to read his paper out loud, and to stop and correct or note
any mistakes he found. Let me try to reproduce the transcript of that reading.
I will underline any substitution or correction and offer some comments in
parentheses. The reader might first go back and review the original. Here is
what John read:

> This assignment calls on *choosing* one of my incident making a last draft
> out of it. I found this very diffícult because I like them all but you said I
> *had* to pick one so the Second incident was decide*d on.* Because (John
> goes back and rereads, connecting up the subordinate clause.) So the sec-
> ond incident was decided on because this one had the most important
> insight to my life that I indeed learn*ed* from. This insight explains why
> adulthood *meant* that much as it dose to me because I think it alway*s*
> influence*s* me to change and my outlook on certain thing*s* like my
> point-of-view I have one day and it might change the next week on the
> same issue. (John goes back and rereads, beginning with "like my point of
> view," and he is puzzled but he makes no additional changes.) So in these
> *few* words *I'm* going to write about the incident now. My expe*r*ience took
> place *bec*ause of the type of school I went to (John had written "too.") Let
> me tell you about the situation (John comes to a full stop.) first of all what
> happen*ed* was that I got *suspended* from school (no full stop) for thing*s*
> that I *felt* was out of my control sometime, but it taught me a lot about
> *responsibility* of a growing man. The school *suspended* me for being late ten

times. I had *accumulated* (for "accumate") ten *demerits* (for "dementic")
and had to bring my mother to school to talk to a counselor and *the
Principal* of the school (full stop) what *went* on at the meet*ing* took me
out mentally (full stop) period (with brio).

I have chosen an extreme case to make my point, but what one sees here is
the writer correcting almost every error as he reads the paper, even though
he is not able to recognize that there *are* errors or that he has corrected them.
The only errors John spotted (where he stopped, noted an error and cor-
rected it) were the misspellings of "situation" and "Principal," and the sub-
stitution of "chosing" for "choosing." Even when he was asked to reread
sentences to see if he could notice any difference between what he was say-
ing and the words on the page, he could not. He could not, for example, see
the error in "frew" or "dementic" or any of the other verb errors, and yet he
spoke the correct form of every verb (with the exception of "was" after he
had changed "thing" to "things" in "for thing*s* that I *felt* was out of my con-
trol") and he corrected every plural. His phrasing as he read produced cor-
rect syntax, except in the case of the consolidation error, which he puzzled
over but did not correct. It's important to note, however, that John did not
read that confused syntax as if no confusion were there. He sensed the dif-
ference between the phrasing called for by the meaning of the sentence and
that which existed on the page. He did not read as though meaning didn't
matter or as though the "meaning" coded on the page was complete. His
problem cannot be simply a syntax problem, since the jumble is bound up
with his struggle to articulate this particular meaning. And it is not simply a
"thinking" problem—John doesn't write this way because he thinks this
way—since he perceives that the statement as it is written is other than that
which he intended.

When I asked John why the paper (which went on for two more pages) was
written all as one paragraph, he replied, "It was all one idea. I didn't want to
have to start all over again. I had a good idea and I didn't want to give it up."
John doesn't need to be "taught" the paragraph, at least not as the paragraph
is traditionally taught. His prose is orderly and proceeds through blocks of
discourse. He tells the story of his experience at the school and concludes
that through his experience he realized that he must accept responsibility for
his tardiness, even though the tardiness was not his fault but the fault of the
Philadelphia subway system. He concludes that with this realization he
learned "the responsibility of a growing man." Furthermore John knows that
the print code carries certain conventions for ordering and presenting dis-
course. His translation of the notion that "a paragraph develops a single idea"
is peculiar but not illogical.

It could also be argued that John does not need to be "taught" to produce
correct verb forms, or, again, at least not as such things are conventionally
taught. Fifteen weeks of drill on verb endings might raise his test scores but
they would not change the way he writes. He *knows* how to produce correct

endings. He demonstrated that when he read, since he was reading in terms of his grammatical competence. His problem is a problem of performance, or fluency, not of competence. There is certainly no evidence that the verb errors are due to interference from his spoken language. And if the errors could be traced to some intermediate system, the system exists only in John's performance as a writer. It does not operate when he reads or, for that matter, when he speaks, if his oral reconstruction of his own text can be taken as a record of John "speaking" the idiom of academic discourse.[12]

John's case also highlights the tremendous difficulty such a student has with editing, where a failure to correct a paper is not evidence of laziness or inattention or a failure to know correct forms, but evidence of the tremendous difficulty such a student has objectifying language and seeing it as black and white marks on the page, where things can be wrong even though the meaning seems right.[13] One of the hardest errors for John to spot, after all my coaching, was the substitution of "frew" for "few," certainly not an error that calls into question John's competence as a writer. I can call this a "performance" error, but that term doesn't suggest the constraints on performance in writing. This is an important area for further study. Surely one constraint is the difficulty of moving the hand fast enough to translate meaning into print. The burden imposed on their patience and short term memory by the slow, awkward handwriting of many inexperienced writers is a very real one. But I think the constraints extend beyond the difficulty of forming words quickly with pen or pencil.

One of the most interesting results of the comparison of the spoken and written versions of John's text is his inability to *see* the difference between "frew" and "few" or "dementic" and "demerit." What this suggests is that John reads and writes from the "top down" rather than the "bottom up," to use a distinction made by cognitive psychologists in their study of reading.[14] John is not operating through the lower level process of translating orthographic information into sounds and sounds into meaning when he reads. And conversely, he is not working from meaning to sound to word when he is writing. He is, rather, retrieving lexical items directly, through a "higher level" process that by-passes the "lower level" operation of phonetic translation. When I put *frew* and *few* on the blackboard, John read them both as "few." The lexical item "few" is represented for John by either orthographic array. He is not, then, reading or writing phonetically, which is a sign, from one perspective, of a high level of fluency, since the activity is automatic and not mediated by the more primitive operation of translating speech into print or print into speech. When John was writing, he did not produce "frew" or "dementic" by searching for sound/letter correspondences. He drew directly upon his memory for the look and shape of those words; he was working from the top down rather than the bottom up. He went to stored print forms and did not take the slower route of translating speech into writing.

John, then, has reached a stage of fluency in writing where he directly and

consistently retrieves print forms, like "dementic," that are meaningful to him, even though they are idiosyncratic. I'm not sure what all the implications of this might be, but we surely must see John's problem in a new light, since his problem can, in a sense, be attributed to his skill. To ask John to slow down his writing and sound out words would be disastrous. Perhaps the most we can do is to teach John the slowed down form of reading he will need in order to edit.

John's paper also calls into question our ability to identify accidental errors. I suspect that when John substitutes a word like "when" for "went," this is an accidental error, a slip of the pen. Since John spoke "wen*t*" when he read, I cannot conclude that he substituted "when" for "went" because he pronounces both as "wen." This, then, is not an error of dialect interference but an accidental error, the same order of error as the omission of "the" before "Principal." Both were errors John corrected while reading (even though he didn't identify them as errors).

What is surprising is that, with all the difficulty John had identifying errors, he immediately saw that he had written "chosing" rather than "choosing." While textual analysis would have led to the conclusion that he was applying a tense rule to a participial construction, or over-generalizing from a known rule, the ease with which it was identified would lead one to conclude that it was, in fact, a mistake, and not evidence of an approximative system. What would have been diagnosed as a deep error now appears to be only an accidental error, a "mistake" (or perhaps a spelling error).

In summary, this analysis of John's reading produces a healthy respect for the tremendous complexity of transcription, for the process of recording meaning in print as opposed to the process of generating meaning. It also points out the difficulty of charting a learner's "interlanguage" or "intermediate system," since we are working not only with a writer moving between a first and a second language, but a writer whose performance is subject to the interference of transcription, of producing meaning through the print code. We need, in general, to refine our understanding of performance-based errors, and we need to refine our teaching to take into account the high percentage of error in written composition that is rooted in the difficulty of performance rather than in problems of general linguistic competence.

Let me pause for a moment to put what I've said in the context of work in error analysis. Such analysis is textual analysis. It requires the reader to make assumptions about intention on the basis of information in the text. The writer's errors provide the most important information since they provide insight into the idiosyncratic systems the writer has developed. The regular but unconventional features in the writing will reveal the rules and strategies operating for the basic writer.

The basic procedure for such analysis could be outlined this way. First the reader must identify the idiosyncratic construction; he must determine what

is an error. This is often difficult, as in the case of fragments, which are conventionally used for effect. Here is an example of a sentence whose syntax could clearly be said to be idiosyncratic:

> In high school you learn alot for example Kindergarten which I took in high school.[15]

The reader, then, must reconstruct that sentence based upon the most reasonable interpretation of the intention in the original, and this must be done *before* the error can be classified, since it will be classified according to its cause.[16] Here is Shaughnessy's reconstruction of the example given above: "In high school you learn a lot. For example, I took up the study of Kindergarten in high school." For any idiosyncratic sentence, however, there are often a variety of possible reconstructions, depending on the reader's sense of the larger meaning of which this individual sentence is only a part, but also depending upon the reader's ability to predict how this writer puts sentences together, that is, on an understanding of this individual style. The text is being interpreted, not described. I've had graduate students who have reconstructed the following sentence, for example, in a variety of ways:

> Why do we have womens liberation and their fighting for Equal Rights ect. to be recognized not as a lady but as an Individual.

It could be read, "Why do we have women's liberation and why are they fighting for Equal Rights? In order that women may be recognized not as ladies but as individuals." And, "Why do we have women's liberation and their fight for equal rights, to be recognized not as a lady but as an individual?" There is an extensive literature on the question of interpretation and intention in prose, too extensive for the easy assumption that all a reader has to do is identify what the writer would have written if he wanted to "get it right the first time." The great genius of Shaughnessy's study, in fact, is the remarkable wisdom and sympathy of her interpretations of student texts.

Error analysis, then, involves more than just making lists of the errors in a student essay and looking for patterns to emerge. It begins with the double perspective of text and reconstructed text and seeks to explain the difference between the two on the basis of whatever can be inferred about the meaning of the text and the process of creating it. The reader/researcher brings to bear his general knowledge of how basic writers write, but also whatever is known about the linguistic and rhetorical constraints that govern an individual act of writing. In Shaughnessy's analysis of the "kindergarten" sentence, this discussion is contained in the section on "consolidation errors" in the chapter on "Syntax."[17] The key point, however, is that any such analysis must draw upon extra-textual information as well as close, stylistic analysis.

This paper has illustrated two methods for gathering information about

how a text was created. A teacher can interview the student and ask him to explain his error. John wrote this sentence in another paper for my course:

> I would to write about my experience helping 1600 childrens have a happy christmas.

The missing word (I would *like* to write about . . .) he supplied when reading the sentence aloud. It is an accidental error and can be addressed by teaching editing. It is the same kind of error as his earlier substitution of "when" for "went." John used the phrase, "1600 childrens," throughout his paper, however. The conventional interpretation would have it that this is evidence of dialect interference. And yet, when John read the paper out loud, he consistently read "1600 children," even though he said he did not see any difference between the word he spoke and the word that was on the page. When I asked him to explain why he put an "s" on the end of "children," he replied, "Because there were 1600 of them." John had a rule for forming plurals that he used when he wrote but not when he spoke. Writing, as he rightly recognized, has its own peculiar rules and constraints. It is different from speech. The error is not due to interference from his spoken language but to his conception of the "code" of written discourse.

The other method for gathering information is having students read aloud their own writing, and having them provide an oral reconstruction of their written text. What I've presented in my analysis of John's essay is a method for recording the discrepancies between the written and spoken versions of a single text. The record of a writer reading provides a version of the "intended" text that can supplement the teacher's or researcher's own reconstruction and aid in the interpretation of errors, whether they be accidental, interlingual, or due to dialect interference. I had to read John's paper very differently once I had heard him read it.

More importantly, however, this method of analysis can provide access to an additional type of error. This is the error that can be attributed to the physical and conceptual demands of writing rather than speaking; it can be traced to the requirements of manipulating a pen and the requirements of manipulating the print code.[18]

In general, when writers read, and read in order to spot and correct errors, their responses will fall among the following categories:

1. overt corrections—errors a reader sees, acknowledges, and corrects;
2. spoken corrections—errors the writer does not acknowledge but corrects in reading;
3. no recognition—errors that are read as written;
4. overcorrection—correct forms made incorrect, or incorrect forms substituted for incorrect forms;
5. acknowledged error—errors a reader senses but cannot correct;
6. reader miscue—a conventional miscue, not linked to error in the text;
7. nonsense—In this case, the reader reads a non-sentence or a nonsense sentence as though it were correct and meaningful. No error or confusion is acknowledged. This applies to errors of syntax only.

Corrections, whether acknowledged or unacknowledged, would indicate performance-based errors. The other responses (with the exception of "reader miscues") would indicate deeper errors, errors that, when charted, would provide evidence of some idiosyncratic grammar or rhetoric.

John "miscues" by completing or correcting the text that he has written. When reading researchers have readers read out loud, they have them read someone else's writing, of course, and they are primarily concerned with the "quality" of the miscues.[19] All fluent readers will miscue; that is, they will not repeat verbatim the words on the page. Since fluent readers are reading for meaning, they are actively predicting what will come and processing large chunks of graphic information at a time. They do not read individual words, and they miscue because they speak what they expect to see rather than what is actually on the page. One indication of a reader's proficiency, then, is that the miscues don't destroy the "sense" of the passage. Poor readers will produce miscues that jumble the meaning of a passage, as in

> Text: Her wings were folded quietly at her sides.
> Reader: Her wings were floated quickly at her sides.

or they will correct miscues that do not affect meaning in any significant way.[20]

The situation is different when a reader reads his own text, since this reader already knows what the passage means and attention is drawn, then, to the representation of that meaning. Reading also frees a writer from the constraints of transcription, which for many basic writers is an awkward, laborious process, putting excessive demands on both patience and short-term memory. John, like any reader, read what he expected to see, but with a low percentage of meaning-related miscues, since the meaning, for him, was set, and with a high percentage of code-related miscues, where a correct form was substituted for an incorrect form.

The value of studying students' oral reconstruction of their written texts is threefold. The first is as a diagnostic tool. I've illustrated in my analysis of John's paper how such a diagnosis might take place.

It is also a means of instruction. By having John read aloud and, at the same time, look for discrepancies between what he spoke and what was on the page, I was teaching him a form of reading. The most dramatic change in John's performance over the term was in the number of errors he could spot and correct while re-reading. This far exceeded the number of errors he was able to eliminate from his first drafts. I could teach John an editing procedure better than I could teach him to be correct at the point of transcription.

The third consequence of this form of analysis, or of conventional error analysis, has yet to be demonstrated, but the suggestions for research are clear. It seems evident that we can chart stages of growth in individual basic writers. The pressing question is whether we can chart a sequence of

"natural" development for the class of writers we call basic writers. If all non-fluent adult writers proceed through a "natural" learning sequence, and if we can identify that sequence through some large, longitudinal study, then we will begin to understand what a basic writing course or text or syllabus might look like. There are studies of adult second language learners that suggest that there is a general, natural sequence of acquisition for adults learning a second language, one that is determined by the psychology of language production and language acquisition.[21] Before we can adapt these methods to a study of basic writers, however, we need to better understand the additional constraints of learning to transcribe and manipulate the "code" of written discourse. John's case illustrates where we might begin and what we must know.[22]

Notes

1. Mina Shaughnessy, "Some Needed Research on Writing," *CCC*, 28 (December, 1977), 317, 388.

2. Mina Shaughnessy, *Errors and Expectations: A Guide for the Teacher of Basic Writing* (New York: Oxford University Press, 1977).

3. The term "idiosyncratic dialect" is taken from S. P. Corder, "Idiosyncratic Dialects and Error Analysis," in Jack C. Richards, ed., *Error Analysis: Perspectives on Second Language Acquisition* (London: Longman, 1974), pp. 158-171.

4. Barry M. Kroll and John C. Schafer, "Error Analysis and the Teaching of Composition," *CCC*, 29 (October, 1978), 243-248. See also my review of *Errors and Expectations* in Donald McQuade, ed., *Linguistics, Stylistics and The Teaching of Composition* (Akron, Ohio: L & S Books, 1979), pp. 209-220.

5. George Steiner, *After Babel: Aspects of Language and Translation* (New York: Oxford University Press, 1975).

6. For the term "interlanguage," see L. Selinker, "Interlanguage," in Richards, ed., *Error Analysis*, pp. 31-55. For "approximate system," see William Nemser, "Approximate Systems of Foreign Language Learners," in Richards, ed., *Error Analysis*, pp. 55-64. These are more appropriate terms than "idiosyncratic dialect" for the study of error in written composition.

7. The term "stabilized variability" is quoted in Andrew D. Cohen and Margaret Robbins, "Toward Assessing Interlanguage Performance: The Relationship Between Selected Errors, Learner's Characteristics and Learner's Explanations," *Language Learning*, 26 (June, 1976), p. 59. Selinker uses the term "fossilization" to refer to single errors than recur across time, so that the interlanguage form is not evidence of a transitional stage. (See Selinker, "Interlanguage.") M. P. Jain distinguishes between "systematic," "asystematic" and "nonsystematic" errors. (See "Error Analysis: Source, Cause and Significance" in Richards, ed., *Error Analysis*, pp. 189-215.) Unsystematic errors are mistakes, "slips of the tongue." Systematic errors "seem to establish that in certain areas of language use the learner possesses construction rules." Asystematic errors lead one to the "inescapable conclusion" that "the learner's capacity to generalize must improve, for progress in learning a language is made by adopting generalizations and stretching them to match the facts of the language."

8. Donald C. Freeman, "Linguistics and Error Analysis: On Agency," in Donald McQuade, ed., *Linguistics, Stylistics and The Teaching of Composition* (Akron, Ohio: L & S Books, 1979), pp. 143-44.

9. Kroll and Schafer, "Error Analysis and the Teaching of Composition."

10. In the late 60's and early 70's, linguists began to study second language acquisition by systematically studying the actual performance of individual learners. What they studied, however, was the language a learner would speak. In the literature of error analysis, the reception and production of language is generally defined as the learner's ability to hear, learn, imitate, and independently produce *sounds*. Errors, then, are phonological substitutions, alterations, addi-

tions, and subtractions. Similarly, errors diagnosed as rooted in the mode of production (rather than, for example, in an idiosyncratic grammar or interference from the first language) are errors caused by the difficulty a learner has hearing or making foreign sounds. When we are studying written composition, we are studying a different mode of production, where a learner must see, remember, and produce marks on a page. There may be some similarity between the grammar-based errors in the two modes, speech and writing (it would be interesting to know to what degree this is true), but there should be marked differences in the nature and frequency of performance-based errors.

11. See Y. M. Goodman and C. L. Burke, *Reading Miscue Inventory: Procedure for Diagnosis and Evaluation* (New York: Macmillan, 1972).

12. Bruder and Hayden noticed a similar phenomenon. They assigned a group of students exercises in writing formal and informal dialogues. One student's informal dialogue contained the following:

> What going on?
> It been a long time . . .
> I about through . . .
> I be glad . . .

When the student read the dialogue aloud, however, these were spoken as

> What's going on?
> It's been a long time . . .
> I'm about through . . .
> I'll be glad . . .

See Mary Newton Bruder and Luddy Hayden, "Teaching Composition: A Report on a Bidialectal Approach," *Language Learning,* 23 (June, 1973), 1-15.

13. See Patricia Laurence, "Error's Endless Train: Why Students Don't Perceive Errors,"*Journal of Basic Writing,* 1 (Spring, 1975), 23-43, for a different explanation of this phenomenon.

14. See, for example, J. R. Frederiksen, "Component Skills in Reading" in R. R. Snow, P. A. Federico, and W. E. Montague, eds., *Aptitude, Learning, and Instruction* (Hillsdale, N.J.: Erlbaum, 1979); D. E. Rumelhart, "Toward an Interactive Model of Reading," in S. Dornic, ed., *Attention and Performance VI* (Hillsdale, N.J.: Erlbaum, 1977); and Joseph H. Denks and Gregory O. Hill, "Interactive Models of Lexical Assessment during Oral Reading," paper presented at Conference on Interactive Processes in Reading, Learning Research and Development Center, University of Pittsburgh, September 1979.

Patrick Hartwell argued that "apparent dialect interference in writing reveals partial or imperfect mastery of a neural coding system that underlies both reading and writing" in a paper, "'Dialect Interference' in Writing: A Critical View," presented at CCCC, April 1979. This paper is available through ERIC. He predicts, in this paper, that "basic writing students, when asked to read their writing in a formal situation, . . . will make fewer errors in their reading than in their writing." I read Professor Hartwell's paper after this essay was completed, so I was unable to acknowledge his study as completely as I would have desired.

15. This example is taken from Shaughnessy, *Errors and Expectations,* p. 52.

16. Corder refers to "reconstructed sentences" in "Idiosyncratic Dialects and Error Analysis."

17. Shaughnessy, *Errors and Expectations,* pp. 51-72.

18. For a discussion of the role of the "print code" in writer's errors, see Patrick Hartwell, "'Dialect Interference' in Writing: A Critical View."

19. See Kenneth S. Goodman, "Miscues: Windows on the Reading Process," in Kenneth S. Goodman, ed., *Miscue Analysis: Applications to Reading Instruction* (Urbana, Illinois: ERIC, 1977), pp. 3-14.

20. This example was taken from Yetta M. Goodman, "Miscue Analysis for In-Service Reading Teachers," in K. S. Goodman, ed., *Miscue Analysis,* p. 55.

21. Nathalie Bailey, Carolyn Madden, and Stephen D. Krashen, "Is There a 'Natural Sequence' in Adult Second Language Learning?" *Language Learning,* 24 (June, 1974), 235-243.

22. This paper was originally presented at CCCC, April 1979. The research for this study was funded by a research grant from the National Council of Teachers of English.