

## OVERFAMILIARITY: A COGNITIVE BARRIER IN TEACHING COMPOSITION

"Theory," wrote Douglas Park, "in the form of widely shared wisdom and sophistication should help us progress to better conditions and assumptions" about the teaching of composition. Park was urging us to step back from pedagogy and "see composition studies as whole and defined." But about cognitive psychology, one major source of wisdom on consciousness and learning, Park said, "It...risks immersing us in an ungovernably various mishmash of terms and approaches."<sup>1</sup> As I have found in my efforts to understand cognitive theory, the approaches are not as various as they seem; in fact, summarizing the results of research, Jeremy Anglin found remarkable similarities among independently operating cognitivists.<sup>2</sup> In spite of the diversity of terms, there is sufficient agreement to provide an overview of some aspects of cognition relevant to teaching composition to basic writing students. Specifically, by adapting theories about selected major cognitive operations to composition classes, we can understand an important barrier to learning, a barrier I am calling "over-familiarity." This concept can enable us to understand why students enter our classes ignorant of information they have already studied. It can suggest practices that help us to avoid the failures of our predecessors.

Cognitive theory describes two interactive and interdependent components of learning/perception and conceptualization. Perception operates on the external environment, continually scanning and delimiting its flux, so that the internally functional structures of conceptualization can process the information further, possibly storing it permanently. Among the cognitivists who have provided us with models of these operations, none is more justly well-known than Jean Piaget. His tandem and invariant operations, assimilation and accommodation, roughly correspond to perception and conception. They function constantly, spontaneously, and recursively,

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*Marilyn Goldberg, freelance writing consultant, was formerly at Pennsylvania State University, University Park Campus, where she taught undergraduate writing courses from basic to advanced. As she observed her own mind processing information and writing during her graduate school work, she became interested in cognitive studies. Her most recently published article appeared in The Writer's Mind (Urbana, IL: NCTE, 1983).*

<sup>1</sup> Douglas Park, "Theories and Expectations: On Conceiving Composition and Rhetoric as a Discipline," *College English*, 41 (1979), 53.

<sup>2</sup> Jerome S. Bruner, *Beyond the Information Given*, ed. Jeremy M. Anglin (New York: W.W. Norton & Co., Inc., 1973), p. xxii.

at times in a more consciously controlled way, at times more vigorously. As assimilation and accommodation continuously operate, the individual's structure of intellect—his or her stored conceptual pool—evolves, ideally growing more expansive and operating more skillfully.

Piaget's model describes the spontaneous motivational principle that activates the perceptual/conceptual learning operations. He uses the terms "equilibration" and "disequilibration" to explain the human drive to seek new information. Like the whole and integrated system of the human body, the human mind needs nourishment. But nature overprovides; the abundance of information available to the senses would overfeed the mind if a self-regulating, self-selecting process were not operating. Spontaneously, the mind creates the need for answers or knowledge by creating questions, and spontaneously it seeks out the information that can satisfy that need. In other words, all learning produces new questions—new disequilibrations—which produce new learning—new equilibrations—which in turn produces new disequilibrations, and so on. Piaget's model is a model of dialectical growth and change. In his terminology, the structured is constantly structuring, improving and perfecting itself.

Some features of this model—match and change—are particularly relevant to teachers of composition. First, as noted above, the individual's structure of intellect perceives new data on the basis of what is already stored. That is, what we perceive at any given time results from the match between the sensory data and the then operating conceptual structures. If our students do not understand what a thesis sentence is, they are not able to perceive one when they read it. Second, as we can clearly discern in the model described, in the course of matching individual and environment, both the perceptions of the data and the conceptual structures change. Change—accommodation—is a necessary consequence of real learning. The increments may be small and imperceptible, but they exist. Once a person has mastered the concept of "thesis sentence," that person has changed; he or she is now capable of recognizing a thesis sentence whenever a thesis sentence is present to his or her senses. Even more important in a writing class, a person can use a thesis sentence when it is needed. It is essential for us to understand that the changes we seek depend upon our ability to find some match between what our students already know and what we want them to learn.

We need to understand that learning—or change—depends upon this match in spontaneous learning behavior because schooled learning behavior operates very much the same way. Schooling simply creates a scientific mode of activity out of what otherwise continually and often effortlessly operates in a non directed, non deliberate, non conscious way. Schooling regulates the model; it negotiates the match and controls the change, often with the learner fully aware of the process. Piaget's model describes spontaneous operations, the operations that account for most learning. L.S. Vygotsky analyzed more carefully the activities and advantages of school or "scientific" learning. To him, school was a place where success in learning resulted largely from conscious understanding of spontaneous learning. "School instruction," he wrote, "...plays a decisive role in

making the child conscious of his own mental processes." Agreeing with an observation by Piaget, he goes on to say, "In operating with spontaneous concepts, the child is not conscious of them because his attention is always centered on the object to which the concept refers, never on the act of thought itself."<sup>3</sup> Thus teachers refocus the perceptual/conceptual model on consciousness itself both contextually and operationally. Vygotsky claims that the great gain from this new consciousness is the systematization of thought—the beginning of scientific understanding. For the purposes of improving the skills of writing, we understand that the gain can be measured in the degree of conscious control over the otherwise spontaneously operating activities of thinking and using language, the activities that determine writing skill. Attending to these activities of thinking and using language, then, means attending to ordinary operations of the mind.

In trying to understand the ways human beings perceive the ordinary operations of the mind, we can add the perspective and terminology that Michael Polanyi's theories provide. Polanyi conceived of two strata of knowledge—focal knowledge or consciously operating perception above and, below, subsidiary knowledge, that which informs and quite literally determines the power and direction of focal knowledge. Polanyi, a scientist by training, was urging his readers to recognize that focal knowledge, which is so often associated with scientific "objective" understanding, is firmly attached to the often unavailable, deeper subjective structures that inevitably control so-called objective inquiry. Focal knowledge or attention, however, can be trained upon subsidiary knowledge. In the triadic relationship among focal attention, subsidiary attention, and the person controlling both operations, that person—the executive—through an act of will, can seek to perceive those deeper structures. Thus, the person who so wills can consciously probe his or her own unconscious structures.

Polanyi suggests that this self-consciousness becomes an important aid in the development and activation of a skill. He describes this use of knowledge in the skills of speaking and playing a piano:

Thus we can concentrate on the sound and the action of our lips and tongue in producing a word, and this will cause us to lose the meaning of the word, although the loss can be instantly made good by casting the mind forward to the saying of something that makes use of the word. The same is true for a pianist who paralyzes his performance by intensely watching his own fingers: he too can promptly recover their skillful use by attending once more to his music. In these instances the path to the integrated relation—which may originally have taken months of labor to establish—is restored from its abeyance in a trice: in the same moment, the sight of the subsidiary particulars is lost.<sup>4</sup>

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<sup>3</sup> L.S. Vygotsky, *Thought and Language*, ed. and trans. Eugenia Hanfmann and Gertrude Vakar (Cambridge, MA: The MIT Press, 1962), p. 92.

<sup>4</sup> Michael Polanyi and Harry Prosch, *Meaning* (Chicago: The University of Chicago Press, 1975), p. 40.

Polanyi could have been writing about the skills of composition. Teachers of writing in general and of basic writers in particular recognize the phenomenon of shifting focus between form and content, aware of the often deleterious impact of obsession with form on the invention of content. Nevertheless, a large part of the teaching of writing skill deliberately focuses attention on that subsidiary consciousness: "form" in writing is a series of human constructs that explain subsidiary consciousness. In order to produce skillful writing, especially among those whose subsidiary consciousness is unlikely to produce skillful writing spontaneously, we focus upon "form" deliberately.

In our efforts to teach students the forms of writing and thinking which they have already learned unconsciously and spontaneously—and often grammatically, unconventionally, and illogically—we confront the formidable barrier of overfamiliarity. Just as we often tune out the sounds of a frequently played musical recording, overfamiliarity of other data causes us to "tune them out." That is, we often fail to see what we look at when what we look at is ordinary or expected. This phenomenon of overfamiliarity has been recognized by linguists, neurobiologists, philosophers, and psychologists. It works to produce, for example, Murphy's Law. In fact, Murphy was wrong. Intellectually, probably all of us know that Murphy was wrong, and yet we find it hard to explain the apparent phenomenon that jelly bread always falls jelly side down. Overfamiliarity explains the discrepancy between what our senses tell us and what our intellect knows. We simply do not notice jelly bread falling when the bread falls jelly side up. That is the usual way, but the inconsequential and unemotional way, and we fail to perceive what is usual or unremarkable.

Given the nature of human thought processes, overfamiliar phenomena should remain peripheral or subsidiary in our consciousness: we cannot attend to all details. But this convenience produces mischief—even torment—in situations of deliberately induced scientific learning. What Chomsky noted about overfamiliarity in the psychological sciences is true for composition: "A certain intellectual effort is required to see how such phenomena can pose serious problems or call for intricate explanatory theories."<sup>5</sup> The ordinariness of the intimate or customary habits of language and thought render language and thought not just overfamiliar but quite transparent.

Steven Rose, a neurobiologist who wrote *The Conscious Brain*, supports the theory with evidence for a "switching off" process of the conscious level of the brain, a process of "habituation" whereby sensations disappear from consciousness when we get used to them.<sup>6</sup> Without this habituation, we would be afflicted with a Proustian hypersensitivity or with what John Barth calls "cosmopsis," a paralyzing awareness of the overwhelming

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<sup>5</sup> Noam Chomsky, *Language and Mind* (New York: Harcourt Brace Jovanovich, Inc., 1972), p. 24.

<sup>6</sup> Steven Rose, *The Conscious Brain* (New York: Alfred A. Knopf, 1973), pp. 193-194.

number of possibilities inherent in each of our decisions. But as a consequence of this habituation, our most pervasive generalizations, our most powerful concepts, our most commonly practiced skills are out of consciousness, available only to the keenest penetration of our questioning and analyzing minds.

The cognitive processes enable us to understand how overfamiliarity operates in the consciousness of our students. Let us focus more intensively on its effects in the teaching of composition. Once again we follow the cognitive triad established earlier of perception, conception, and motivation.

I can still remember when I first learned to perceive some elements of a given painting in a fine arts class: recognizing the major outlines of composition and major elements like color, I still needed help from my teachers to make the finer discriminations of these and the other qualities of painting. I was then able to perceive many details that had aroused my initial responses of aesthetic satisfaction. The same learning procedure, it would seem, should apply to writing. But it doesn't. Apprentice appreciators of fine writing and apprentice writers cannot readily see the major structural qualities of the composition. Often, even after we point them out, they cannot perceive the structure of a sentence or a paragraph, and they miss our meanings about verbs and parallel constructions or fail to hear the language rhythms. Both the gross and the fine discriminations are difficult to make, not just because of the lineality of writing that makes it exist in time (as distinct from space where it can be seen), but because the qualities of the structure of thought and the structure of language are so commonplace, so integral to our functioning. If students cannot perceive these structures and sounds in the writing—and even in the speech—of others, they are not likely to perceive them in their own language. For adult learners ("formal-operational" learners in Piaget's terminology), perception need not attend to concrete objects; however, at least some representation, some symbol of a concrete object, should be clear. Overfamiliarity works most perniciously when it masks the information to which we need to attend by covering it with a cloak of invisibility.

The verb in a sentence is invisible; it is a kind of word students have used all their lives. We now attempt to focus their attention on this kind of word. We try to excise it from its field in language and sentences and make it available to conceptualizing structures so that students can understand how it operates and how to control its operations. We attempt to create this field independence for all kinds of details of ordinary language: clauses, phrases, pauses in speaking, relationships indicated by conjunctions and adverbs, and so on.

To correct errors, we urge our students, for example, to listen to themselves talk. (Perhaps for their own purposes, psychoanalysts invite their patients to listen to themselves think.) Hear, we say in effect, your own normal ways of forming the past tense. Do you end those verbs with the standard "ed"? Do you use the correct past participle in the perfect tenses? What we're asking them to do, in order to perceive the way standard English works, is to focus on their own subsidiary structures, the

structures that, according to Polanyi, usually operate out of consciousness. We ask them to perceive their ordinary thinking the same way. They constantly make generalizations and support them with details. The activities relating a topic sentence to the details within a paragraph are the same as those in which they engage when, spontaneously, they observe details of their English teacher and fellow students in a new class and then, spontaneously, size things up. It would take little time for them to create a topic sentence about their English teacher, possibly more time to think through the details that aroused that generalization, but most likely it would take a great amount of time to recognize the operation of that thinking experience to perceive its structure, and to implement that structure in the controlled and deliberate activity of writing. Physicists at least have the advantage of pointing to unfamiliar structures and strange new images, and their students can know at least that they are looking at something both discernible and real. But how real is "verbness" or "topic sentence" to people who have used verbs and created generalizations unconsciously all their lives?

The problem is one of tracing the figure in the carpet, of discriminating the hidden detail in the gestalt or field in which it is embedded. The gestalt, the habit of use, masks the detail, just as it prevents us from knowing when we are biting our nails or braking an automobile with annoying frequency.

I came to understand this problem when I read in *Thought and Language* Vygotsky's version of Claparede's "Law of Awareness": "awareness of difference precedes awareness of likeness," and elsewhere, "an impediment or disturbance in an automatic activity makes the actor aware of that activity." Claparede, in formulating the problem, also suggests a solution—unmasking the routines by creating a strangeness in their operations.<sup>7</sup> If we can disturb intuitive routines, eliminating students' reliance on intuitive procedures like chronology, verb endings, and generalizations, perhaps we can enable them at least to perceive the object on which we are focusing. We can create deliberate and exaggerated constructions—even errors—like long lists of prepositional phrases that fail to do something or sentences that intuitively are wrong because the verb slot is filled with a word that obviously cannot be a verb, a word like a conjunction or an adverb for example. ("The girl by the dog." "The dog loudly the mailman.") We can have them write a string of simple sentences, intuitively obnoxious, like the sentences in reading primers: "See Spot. See Spot run. Spot runs fast. Find Spot, Mary." Again, if they have to write a series of run-ons, they might be able to perceive correct sentence form. Or we can use a passage from Molly Bloom's soliloquy in Joyce's *Ulysses* to demonstrate our natural dependency on periods. When teaching the whole structure of a composition or a paragraph, we may enable them to understand the well-hidden percept of the relationship between the thesis or topic sentence and the details that contribute to it by insisting that they withhold

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<sup>7</sup> Vygotsky, pp. 88 and 16.

the main idea until the end. Narrative, the most intuitively satisfying of the modes of writing, must be avoided if we are to help students control the logical modes of organization. (Conversely, when we want to eliminate consciousness of any given operation in order to focus attention on something else, then we need to take advantage of the fact that subsidiary knowledge works intuitively.) When we allow the intuitive to operate—and fail to create the circumstances under which the conceptual must operate—we are strengthening—or at the very least, not discouraging—the barrier of overfamiliarity.

I have deliberately avoided any suggestion of telling students what we mean; rather, I have described a process of discovery, of creating the sensory experience enabling them to perceive the concept, the reality behind the symbol. This inductive learning, suitably matched to what students already know and followed by experiences of application, will characterize further suggestions for eliminating the worst effects of the barrier of overfamiliarity.

It is possible for students to conceptualize without perceiving the information. That kind of learning, which Piaget called "overaccommodation," is rote learning. Perceiving alone does not turn the information into knowledge. Nor does conceptualizing alone. Successful learning in the Piagetian structural paradigm described above, occurs when, first, the mind's existing conceptual structures find some match with the new information, some fit with what is already known and, second, when those structures incorporate (as the body incorporates food) the information so that it becomes permanent and meaningful. As noted above, the result of this sequence of meeting, matching, and mastering is some change in the structure of intellect.

We must be constantly alert to the purpose of teaching this information: we expect it to change writing habits—linguistic and thought habits—in order to improve skill. In using a conceptual method of teaching (rather than, say, using repeated experiences in writing without the conceptual component), we accept two premises: that our students are capable of learning these concepts and that mastery of the information will provide them with a tool for change and control. I emphasize the word "mastery" here. The learning cannot be superficial; it carries a heavy burden. If we are teaching for conceptual mastery, then we need to be alert to the ease with which students can avoid the difficulty of that effort by substituting their intuitive responses and memorization. Memorizing, which Vygotsky called "pseudo-conceptualization," is at best a successful way to park information in short-term memory where it seems to serve academic experiences like examinations. It is useless afterwards. Rote memorization is more useless when the purpose of the knowledge is to change habits. Then the knowledge needs to penetrate the deep structures of learning from whence it can be repeatedly applied, eventually becoming part of the new, improved subsidiary consciousness.

For it is subsidiary consciousness—Polanyi's term—that we are attempting to re-form. By expecting our students to understand the concepts of composition, we are expecting them to raise to consciousness the



operations of the most out-of-consciousness parts of their minds. We cannot treat this learning as if it were easy to accomplish. That false attitude may be fostered by the apparent success some people had (or think they had) when they taught grammar to elementary school children. The students coming into our classes, however, failed to understand it then—a failure that no doubt contributes to their usual frustration with and antagonism towards it now—and now we must confront them with it again. This time, a "no nonsense" approach requires conceptualization of those hidden processes. Thinking further about the large quantity of information most of these students must master and about how few of their intuitive operations can be allowed to remain untouched by conceptual control, we realize that real learning in a composition class, especially a class for basic writers, demands great effort.

Not only are we quite literally teaching self-awareness, but we are attempting to do so with some highly complex, abstract terms. Among a population unlikely to be operating comfortably at the "formal operational" level—Piaget's name for the level of maturity at which people can readily manipulate abstractions—we need to resist the temptation to introduce concepts like "sentence" and "paragraph" by explaining them. The explanations become tedious, candidates for memorization. Rather, we need to use techniques like those designed to overcome the problems of perceptualization. Playing around with low-level exemplars of the great abstractions and talking about them, our students can usually create those abstractions for themselves. Andrea Lunsford urged this kind of classroom for basic writing students where "students learn by doing and then by extrapolating principles from their activities."<sup>8</sup> This kind of classroom need not avoid teacher directions and summations; like Lunsford, I would suggest that the student-developed concepts be reinforced by clear statements from the teacher. But that reinforcement should not displace discovery learning.

When students are manipulating the low-level exemplars of the great abstractions, they need to work with material that they can readily understand, matching what they know with the learning they are trying to construct. If "sentence" is a meaningless unit, as it is likely to be, then we must go back further to its base, the verb. Students need to create a firm concept of verbs, using them deliberately and recognizing them in their own writing. After playing with them, talking about them (preferably in small groups where each of them must talk), inducing their own definitions, and demonstrating some accuracy and skill in their use, they can go on to "clause," again playing with clauses, talking about them, inducing their own definitions, and demonstrating that they can identify them. The process continues. With patience and proper sequencing and incrementalization, their successes can enable them to assimilate and accommodate an impressive quantity of well-learned information about their own language processes, information that will enable them to

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<sup>8</sup> Andrea A. Lunsford, "Cognitive Development and the Basic Writer," *College English* 41 (1979), 40.



exercise the control that skillful operations require.<sup>9</sup>

Is it possible to motivate these students to want to learn these concepts? They have learned the know-how spontaneously, but curiosity about *knowing that* (to borrow Gilbert Ryle's words for understanding the mechanics of know-how)<sup>10</sup> is not likely to develop spontaneously. I sympathize with their indifference. When I studied physics, I knew that I didn't understand concepts like friction or gravitational forces, and I was eager to learn. When I studied English, I thought I understood (I didn't, but I didn't know that until I tried to teach it), and I was bored and restless throughout the course. If ever I talk about the abstractions of sentences to my students, I can see them listening for about five minutes, perhaps ten minutes if I can catch their interest with wit and create a good match of information, but I cannot speak to twenty-five different structures of intellect and match the needs and the knowledge of all.

To many basic writing students, the information we share poses threats, not questions. We ask them to learn it and to use it to change from comfortable behavior into new behavior, a process requiring patience, a change risking failure. They must confront a multitude of trivial details, a discouraging scenario. Altogether, this learning potentially attacks two significant bases of self-esteem—their natural language and their ability to think—among a population whose collective self-esteem needs to prosper, not to endure attack. It requires, as one group of psychologists phrased it, a "provisional self-devaluation ('I may be wrong') or recognition of the need for self-correction ('I'm not very good at this')." And yet, as they noted further, "In order to adopt a self-corrective orientation, the person must be sufficiently confident through past successful experiences that his admission of the inadequacy will not be threatening."<sup>11</sup> To motivate our students well means to solve the problem of how to initiate that self-corrective orientation in order to create the necessary openness for learning, the receptivity that comes naturally when disequilibrium creates its own curiosity and openness. We are more likely to pose a threat to their well-being than to arouse their curiosity.

Once again, a promising approach is the one suggested earlier: using exemplars, playing with sentences or verbs or structural plans or whatever we happen to be teaching, directing students' constructions of the generalizations, and then directing their implementation of those concepts. Mina Shaughnessy noted that one of three main approaches to teaching basic writing was concerned with "*confidence* as central to the writing act and [dismissed] concerns with form or process as incidental to the students' discovery of themselves..."<sup>12</sup> However, sensitivity to this need to avoid

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<sup>9</sup> Rita Phipps, "Teaching English from the Beginning: Lesson Plans for an Entry-Level College Writing Course Based on the Research of Jean Piaget." This book, in progress, will clarify theory and coordinate lesson plans according to that theory.

<sup>10</sup> Gilbert Ryle, *The Concept of Mind* (New York: Barnes and Noble Books, 1949).

<sup>11</sup> O.J. Harvey, David E. Hunt, and Harold M. Schroder, *Conceptual Systems and Personality Organization* (New York: John Wiley & Sons, Inc., 1961), p. 238.

<sup>12</sup> Mina P. Shaughnessy, *Errors and Expectations* (New York: Oxford University Press, 1977), p. 73.

destroying confidence and to the potential for doing so by attacking the overfamiliar skills can be combined with conceptual study. The inductive procedures suggested above seem less threatening to their self-esteem and more likely to induce meaningful learning and successful implementation of that learning than deductive teaching techniques.

These suggestions for teaching are procedures that have helped me help my students to understand the concepts of composition. They don't always work the way I want them to work but, generally, the students do perceive the details and conceptualize the abstractions, and they do so without great frustration and overtaxed effort. There are other suggestions: to use the overfamiliar to isolate the discrete elements we are trying to teach conceptually; to require feedback—like utilization of the concepts—that will not let us fool ourselves into thinking that our students have successfully conceptualized when they have merely rote-learned the information; to select only the most essential elements and to introduce them in the most sequentially meaningful way possible; and to apply the concepts regularly and repeatedly, always using the same name for each of them. Whatever we do, we need to curry the feeling of success, noting it carefully when our students master a concept and building upon it to create confidence.

If many of these suggestions seem to many experienced teachers of basic writers as common sense, then they are reaffirming the value of the suggestions. Common sense tells us what we already know; the concept of overfamiliarity provides us with a way to analyze what we already know. Cognitive theories in general often seem to reaffirm our common perceptions of the ways we and all human beings learn; applied to the teaching of composition, the theories can provide us with ways to understand why a technique works or why it fails to work. If we understand some of the well-authenticated theories, we should be able to apply the widely shared cognitive wisdom, as Douglas Park urged us to do with theory, to enable us to see some important elements of composition studies as whole and defined.