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Chapter 10: Piaget and Teaching Composition

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CHAPTER TEN

Piaget and Teaching Composition

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As someone who teaches composition regularly and who is always aware of and interested in his students' writing, I have come to think that the most serious problem students have with their writing is a general inability to structure their thoughts with logical clarity and rhetorical skill. Not commas or parallel structure or sentence fragments. Organization. I have written notes to students by the hundreds about this problem, and sometimes the papers come back to me with a much clearer organizational pattern. All too often, however, they are returned lovingly with the commas in the right places, a one-sentence opening paragraph stating a thesis, and a conclusion about structural problems and have been greeted, mostly, with sage nods behind which perches blank incomprehension. My reading of Piaget and his commentators, however, has led me to what seems to be a valid explanation of some organizational weaknesses in student writing and to the construction of a classroom exercise which begins to help students overcome them.

My own experience of the way students organize their essays is this: Some students come to my classes able to (or to learn quickly to) see the logical (and sometimes psychological) relationships between the elements of what they wish to talk about and to use those connections to give them the essential form of their writing, keeping in mind the needs and knowledge of their audience and their purpose in writing. Many other students, though, do not -- apparently cannot -- employ such writing strategies. Rather, they seem to state their ideas in the order in which they occur to them. Very often, such students don't perceive the connections between their ideas, at least on more than the most obvious level; and even more often they fail to help the reader see the relationships through the use of transitions, paragraphing, and subordinating conjunctions. They begin their essays with the first point they wish to make without giving their readers a context within which to understand it or even a reason to keep reading. They end the paper with the last point they wish to make, leaving me wondering sometimes whether I have not lost the last page of the paper. I used to think that students who have such problems with the logic and structural integrity of their writing -- students who are generally bright, curious, mentally alive young people -- simply had too little practice in writing in high school. I wasn't able to maintain that theory, however, against my irritation at students who handed in paper after paper -- no matter what the topic -- in the triangle or inverted triangle or diamond form painstakingly learned in high school. It was, finally, in the Piagetian description of the differences between concrete and formal patterns of thought, that I found a coherent explanation of the writing behavior of such students.

Anyone who has read Piaget knows that his descriptions of cognitive processes are expressed in terms of mathematics and formal logic. Still his theories have clear implications for the writing process. Basic to Piaget's theory is the idea that cognitive activity involves acting upon an object of thought (an "operation" in Piaget's term). Concrete operations are well-fitted to gaining and manipulating knowledge about the physical world and the thinker's own experience. Formal operations, on the other hand, are actions upon objects of thought which are in

themselves mental constructs and may or may not have reference to the world of physical objects. The individual employing concrete operational patterns of thought is quite capable of handling basic classification schemes and generalizing from them; of reasoning that, if nothing is added or taken away from an object, no change in shape or appearance alter the amount of the object (conservation); and of performing serial ordering of objects through the establishment of one-to-one relationship. The individual using formal reasoning patterns can apply to objects of knowledge such "schemata" as combinatorial and proportional thinking, correlational and probabilistic reasoning, conservation behind the realm of physical objects, and the control of variables.

What have these patterns of thinking to do with the writing of student essays? Research and experience indicate that many students (and I would claim that these are the very ones who have serious organizational problems) come into college classes and respond to the writing process with reasoning strategies Piaget calls concrete operational, whereas most of the writing we ask college students to do calls for formal reasoning. The ways in which the elements of a paper topic may be connected, even topics related to the student's own experience, are normally not concretely observable or part of the writers' intellectual structure. Moreover, the fact that I say "may be connected" implies, of course, that there is more than one set of connections to be seen and chosen among. Finally, all but the most concrete of topics exists within larger contexts of which mature writers are aware and within which they consciously write. Thus, even before writing begins, there must be constructed a fairly complex, abstract "shape" for the topic. But the problems don't end there. That mental structure must be integrated with the structure of the language itself. A choice must be made among the variety of organizational schemes that one's sense of good prose offers, a choice which concerns expressing ideas about the topic in the particular perspective from which the topic is to be treated. Often this chosen structure is a re-ordering of the one which the writer first used to understand the topic, which explains why one sometimes changes one's mind about as subject during the writing process.

The work of composition is not yet complete, however. Other choices must be made which will bear on the structure of the essay. One must decide which elements are central to the topic, seen in a particular light, and which are peripheral. What facts or concepts can be assumed; which, on the other hand, need to be stated, demonstrated, or proven? Still all is not done. One must see clearly the purpose of the writing itself; and, crucially, one must project oneself into the potential audience, weighing how that audience will react to the choices that are made, how it can be led to understand or agree with the essay. All of these matters and more (notice that I haven't even touched on matters of style) college teachers take for granted in nearly all of the "public" writing they do, from department memos to articles and books. But for the student who approaches a writing task using concrete reasoning patterns, such processes and decisions are awesomely difficult or even impossible.

What does such a student do in his/her writing? The student does just what I've described at the beginning of this essay. He/she may be aware only narrowly or not at all that the topic of the paper exists in one or more larger contexts (a result not so much of ignorance, in many cases, as of the kind of concrete classifying techniques Piaget talks about). This limitation, plus the student's tendency to ignore the need for a purpose for writing other than the fact that he/she has been assigned to do so, results in the lack of a sufficient introduction. The student is not

consistently able to distinguish between the central and the peripheral, spending two paragraphs on a minor point and one sentence on a crucial one. The student may miss many of the less overt inter-connections within the topic; thus she/he organizes the material serially than logically or organically. Such a student is able to tell a story quite lucidly, in many cases, when the structure is obvious (usually chronological). But the result is different if that same student is asked to describe a scene, let us say, with which she/he has had no experience. In that case, the writer will have to deliberately choose a hypothetical stance or attitude, from which to write. Not only does Piaget's theory indicate that such a requirement presents nearly insuperable difficulties for a concrete thinker; but Piaget and Inhelder (in ***The Growth of Logical Thinking from Childhood to Adolescence***, pp. 340-350) indicate that young people becoming adult thinkers and members of society (i.e., in transition from concrete to formal thinking patterns) develop an egocentrism which inhibits their seeing the world from any perspective but their own. Thus such a writer, asked to compose a story or description in which no obvious serial ordering scheme seems involved, will most likely convey thoughts or events as they occur to him/her. This same egocentrism restricts students' ability to visualize any audience for their writing other than the stereotyped paper-grader who is their instructor. Because they have trouble distinguishing between their own knowledge and thought processes and those of others, they find it difficult to engage in the kind of hypothetical thinking that would allow them to read their writing as someone else would.

Piaget's theory, then, predicts by implication that the students who approaches writing using, partially or completely, concrete reasoning patterns will run into the kind of obstacles that I've described, obstacles which result in the writing deficiencies I've claimed are the most serious I encounter in student writing. In general, such a student will demonstrate an inability to exercise overall logical and rhetorical control over her/his writing, measured by the standards of mature writing. Specifically, the student's instructor will be confronted by weak openings and conclusions, poor paragraphing, seemingly random development of the topic and feeble or non-existent transitions -- in fact a serious deficiency in what Young, Becker, and Pike (in ***Rhetoric: Discovery and Change***) call "plot cues," those devices by which the reader is guided to an understanding of what the writer wishes to say. A writer with such problems doesn't merely need more practice in composition; the student needs as well greater maturity and cognitive development.

How is a teacher to respond to this need? Theoretically, the teacher should provide for students opportunities to explore the writing process itself, under circumstances which will promote disequilibration and self-regulation. In other words, the student needs to discover that: (1) writing that he/she thought was public (written for others) is essentially private (written for himself/herself) and thus not fully intelligible to others; (2) he/she needs to ask questions about the topic before writing, questions whose answers will yield organizational principles; (3) organization of material in an essay involves conscious choice within known contexts and is not the result of happy accident. Practically, such results are difficult to achieve, and I don't pretend to know how to achieve them in a systematic way. I can, however, describe a learning exercise that may be suggestive of ways in which we can get our students to be aware of the structural shortcomings in their writing and the possibilities for overcoming them.

The students, in small groups, are given 22 cards, on each one a full sentence. The sentences, together, make up an essay which the students have never seen. The essay, they are told, is written on the level of an "average" college freshman. (In fact, I found it easier to write the essay myself, for the sake of this exercise, because I wished to avoid distracting grammatical problems. I did, however, attempt to write a paper that a fairly competent 18 year old student might have written.) The paper cites statements that this is the most violent era in the world's history. The essay, through a brief chronological survey of past cultures and civilization, makes the point that we are not more violent than our forebears but are more aware of violence. The students are asked not to put the sentences in order but to group them in categories which describe the function of the sentences in an essay. When they have done so, they share their grouping with the instructor and then with the whole class. With these categories in mind, they are then asked to reconstruct the paper. Once again the results are shared and differences noted. Finally, they are given the full essay itself and asked to compare it to theirs. This "paper," however, while it uses the same sentences that they have been manipulating, uses them in faulty order not unlike what a student such as I have been talking about would use.

Ideally what will happen during this exercise is this. The students will first try to group the sentences by content and will be reminded to think about what the sentences do, not what they say. Many groups will then come up with categories such as "introductions," "transitions," "conclusions," "examples," "evidence," "thesis statements," and the like. As we discuss these groupings as a class, various matters tend to emerge. Students discover that they can't tell whether "introductions" introduce the full topic or elements of it. The same is true of conclusions. They begin to see the cues, however, which inform them of the function of a sentence. They often discover, also, that some sentences, placed in two different contexts, might yield different ideas. They find out that they all agree that the paper is argumentative, that its purpose is to prove a point; and they begin to be able to speak about how they know this without having the full paper in front of them.

The students then apply these ideas when they try to put the paper together. The groups use pronoun references and conjunctions in their ordering of the sentences. They speak of what we'd call rhetorical strategy. They use a sense of hierarchy to place the various introductory and concluding sentences. After we have discussed any differences in the versions the groups come up with (and there are often differences, sometimes two different but valid papers emerging), they are given the "real" paper. By long training, they expect that they're being given the right answer; but after a few minutes' examination, they become dismayed at the writer's dreadful lack of organizational ability (which they now have the awareness and terminology to describe) and pleased at their own cleverness.

This exercise, which usually takes three 50-minute class periods to complete, does not teach students how to do something. It is intended, rather, to make students consciously aware of some of the many organizational choices to be made in writing and of the need to signal those choices to the reader. Placing students in the role of reader and of "writer," it asks them to explore sentence form as a clue to structural principles, divorced from the sequence in which the sentences appear in an essay. They are given a chance to manipulate sentences, both in the categorizing and in the paper construction, "feeling" the sentences as structural units in a way that many of them do not when they write. And finally, they are made editors of the "original

paper," the components of which they have become familiar with. In Piagetian terms, the exercise encourages students to explore a system, beginning with concrete manipulation (the sentenced cards), and to understand it through their own invention of concepts (which the instructor can help them label). They are then asked to apply those concepts as writers, by re-constructing the paper, and as readers, by editing the original.

This exercise is not without its problems. I have continued to tinker with the language of the first set of instructions, because some students don't understand how a sentence can "function" in any way except through the collective references of its words. Such students, and indeed whole groups, can become so involved with sentence content and meaning that they cannot break free to the kind of structural principles which the exercise is intended to elicit. Moreover, I have had to maintain constant vigilance to prevent groups from constructing the paper first and then using sentence sequence to create categories, a method which locks them into precisely the idea of serial ordering of sentences that I'd like them to avoid. Still, whatever its faults, this exercise seems to me a useful way of encouraging learning of a permanent sort, unlike that which results from the memorization of organizational theories from rhetoric books. I will continue to give my advice to students about the organizational of individual papers in notes and conferences, just as I will continue to ask them to look at models of writing from their peers or other writers. But I will also continue to try to get them to explore, in ways they do not normally do, all phases of writing, to discover for themselves the principles which mature writers use and which they can use as they mature.