

## ◆◆ Chapter 17

# *Dialogical and Dialectical Thinking*

### *Abstract*

*This paper is divided into two sections. Part I is theoretical. In it, Richard Paul discusses the importance of dialogical and dialectical thinking. He argues that students learn best in dialogical and dialectical situations, when their thinking involves dialogue or extended exchange between different points of view or frames of reference. Part II is pedagogical. In it, Paul discusses what can be done in a classroom to engage student thought dialogically and dialectically. He discusses how to distinguish multilogical issues (those having many logics) from monological issues (those having one logic). He then discusses Socratic questioning as a way to effectively involve students in a discussion and engage their thinking about an issue or topic. The value of cooperative learning is then discussed. Paul stresses that dialectical discussions are disciplined, that students must “learn how to bring intellectual standards into their work, how to hold themselves and their classmates to standards of good reasoning and analysis.”*

### ◆ *Part I: Theory*

#### ◆ *Introduction*

When as the result of a trial, the jury comes to a verdict of guilty or innocent; when as a result of political debate, a citizen decides to vote for one of the candidates; when as a result of reading the case that can be made for alternative political systems, one concludes that one is superior to the others; when as a result of hearing various sides of a family argument, one becomes persuaded that one side is more justified and accurate; when as a result of reading many reports on the need for educational reform, one is prepared to argue for one of them; when as a result of entertaining various representations of national security, one reasons to a position of one's own; when after reading and thinking about various approaches to the raising of children, one concludes that one is better than the others; when after interacting with a person for a number of years and entertaining various conflicting interpretations of her character, one decides that she would make a good marriage partner — *one is reasoning dialectically.*

Whenever students discuss their ideas, beliefs, or points of view with other students or the teacher; whenever students have to role play the thinking of

others; whenever students have to use their thinking to figure out the thinking of another (say, that of the author of a textbook or of a story); whenever students have to listen carefully to the thoughts of another and try to make sense of them; whenever students, whether orally or in writing, have to arrange their thoughts in such a fashion as to be understood by another; whenever students have to enter sympathetically into the thinking of others or reason hypothetically from the assumptions of others, *they are reasoning dialogically*.

An open society requires open minds. One-sided egocentric and sociocentric thought, joined with massive technical knowledge and power, are not the foundations of a genuine democracy. The basic insight, formulated over a hundred years ago by John Stuart Mill, is as true today, and as ignored, as it was when he first wrote it:

In the case of any person whose judgment is really deserving of confidence, how has it become so? Because he has kept his mind open to criticism of his opinions and conduct. Because it has been his practice to listen to all that could be said against him; to profit by as much of it as was just, and expound to himself, and upon occasion to others, the fallacy of what was fallacious. Because he has felt that the only way in which a human being can make some approach to knowing the whole of a subject, is by hearing what can be said about it by persons of every variety of opinion, and study.

This is the dialogical ideal. Dialogical and dialectical thinking involve dialogue or extended exchange between different points of view or frames of reference. Both are multilogical (involving *many* logics) rather than monological (involving *one* logic) because in both cases there is more than one line of reasoning to consider, more than one "logic" being formulated. Dialogue becomes dialectical when ideas or reasonings come into conflict with each other and we need to assess their various strengths and weaknesses.

In general, students learn best in dialogical situations, in circumstances in which they must continually express their views to others and try to fit others' views into their own. Even when dealing with monological problems (like many found in math and science) students need to move dialogically between their own thinking and "correct" thinking on the subject before they come to appreciate the one "right" (monological) way to proceed. They cannot simply leap directly to "correct" thought; they need to think dialogically first.

Unfortunately, the dominant mode of teaching at all levels is still didactic: teaching by telling, learning by memorizing. The problem it creates is evident in this excerpt from a letter by a teacher with a Master's degree in physics and mathematics:

After I started teaching, I realized that I had learned physics by rote and that I really did not understand all I knew about physics. My thinking students asked me questions for which I always had the standard textbook answers, but for the first time made me start thinking for myself, and I realized that these canned answers were not justified by my own thinking and only confused my

students who were showing some ability to think for themselves. To achieve my academic goals I had memorized the thoughts of others, but I had never learned or been encouraged to learn to think for myself.

Didactic teaching encourages monological thinking from beginning to end. There is little room for dialogical or dialectical thinking in the mind of the didactic teacher. Rather the teacher, usually focused on content coverage, tells students directly what to believe and think about subject matter, while students, in turn, focus on remembering what the teacher said in order to reproduce it on demand. In its most common form, this mode of teaching falsely assumes that one can directly give a person knowledge without that person having to think his or her way to it, that knowledge can directly be implanted in students' minds through memorization. It confuses *information* with *knowledge*. It falsely assumes that knowledge can be separated from understanding and justification. It confuses the ability to *state* a principle with *understanding* that principle, the ability to *supply a definition* with *comprehending* a concept. Didactic instruction flourishes when it appears that life's problems can be solved by one-dimensional answers and that knowledge is ready-made for passive absorption. Most teachers teach as if this were so without recognizing it.

Students today have very little experience in school of reasoning within opposing points of view. Indeed students today have little experience with reasoning at all. Most students do not know what inferences are, what it is to make assumptions, what it is to reason from an assumption to one or more conclusions. In the didactic classroom of today, the teacher is engaged in inculcating information. Classroom monologue (students passively listening) rather than active dialogue (students thoughtfully engaged) is the paradigm. Unfortunately, students then come away with the impression that knowledge can be obtained without struggle, without having to hear from more than one point of view, without having to identify or assess evidence, without having to question assumptions, without having to trace implications, without having to analyze concepts, without having to consider objections.

The result: students with no real sense of what the process of acquiring knowledge involves, students with nothing more than a jumble of information and beliefs, students with little sense of what it is to reason one's way to knowledge. The result: teachers oblivious of the fact that knowledge must be earned through thought, who teach as if knowledge were available to anyone willing to commit information to short-term memory. The result: school as a place where knowledge is didactically dispensed and passively acquired, something found principally in books, something that comes from authorities.

But if gaining knowledge really is a fundamental goal of education — and all curricula say it is — then most students should be spending most of their time actively reasoning. That is, most of the students most of the time should be gathering, analyzing, and assessing information. They should be considering alternative competing interpretations and theories. They should

be identifying and questioning assumptions, advancing reasons, devising hypotheses, thinking up ways to experiment and test their beliefs. They should be following out implications, analyzing concepts, considering objections. They should be testing their ideas against the ideas of others. They should be sympathetically entering opposing points of view. They should be role playing reasoning different from their own. In short, they should be *reasoning dialogically and dialectically*.

Only when students have a rich diet of dialogical and dialectical thought, do they become prepared for the messy, multi-dimensional real world, where opposition, conflict, critique, and contradiction are everywhere. Only through a rigorous exposure to dialogical and dialectical thinking, do students develop intellectually fit minds.

#### ◆ *Absolutistic Thinking in Early School Years*

Young children do not recognize that they have a point of view. Rather, they tend to make absolute judgments about themselves and others. They are not usually given an opportunity to rationally develop their own thoughts. Their capacity to judge reasons and evidence is usually not cultivated. Their intellectual growth is stunted.

As a result, young children uncritically internalize images and concepts of what they and others are like, of what, for example, Americans are like, of what atheists, Christians, communists, parents, children, business-people, farmers, liberals, conservatives, left-wingers, right-wingers, salespeople, foreigners, patriots, Palestinians, Kiwanis Club members, cheerleaders, politicians, Nazis, ballet dancers, terrorists, union leaders, guerrillas, freedom fighters, doctors, Marines, scientists, mathematicians, contractors, waitresses, are like. They then ego-identify with their conceptions, which they assume to be accurate, spontaneously using them as guides in their day-to-day decision making.

Children need assignments in multilogical issues to break out of their uncritical absolutism. They need to discover opposing points of view in non-threatening situations. They need to put their ideas into words, advance conclusions, and justify them. They need to discover their own assumptions as well as the assumptions of others. They need to discover their own inconsistencies as well as the inconsistencies of others. They do this best when they learn how to role-play the thinking of others, advance conclusions other than their own, and construct reasons to support them. Children need to do this for the multilogical issues — issues involving conflicting points of view, interpretations, and conclusions — that they inevitably face in their everyday lives. But they also need to do so for the disciplined monological questions that they must of necessity approach from within the context of their own undisciplined minds.

Because children are not exposed to dialogical and dialectical activities, children do not learn how to read, write, think, listen, or speak in such a way as to rationally organize and express what they believe. They do not learn how uncritically they are responding to the mass media nor to what extent it is reinforcing their subconscious egocentric or sociocentric views. They feel deeply primarily about egocentric concerns, justifying getting what they want, and avoiding what they do not want. If school is to prepare students for life as it is, if it is to empower children to become rational persons, it must cultivate dialogical engagement and reasoned judgment from the outset.

### ◆ *Fact, Opinion, and Reasoned Judgment*

When critical thinking is introduced into the classroom — and very often it is not — it is often approached monologically, for example, by having students divide a set of statements into “facts” and “opinions”.

Unfortunately, a taxonomy that divides all beliefs into either facts or opinions leaves out the most important category: reasoned judgment. Most important issues are not simply matters of fact, nor are they essentially matters of faith, taste, or preference. They are matters that call for reasoned reflection. They are matters that can be understood from different points of view through different frames of reference. We can, and many different people do, approach them with different assumptions, ideas and concepts, priorities, and ends in view. The tools of critical thinking enable us to grasp genuine strengths and weaknesses in thought only when they are analytically applied to divergent perspectives in dialectical contexts. Dialogical and dialectical experience enables us to develop a sense of what is most reasonable. Monological rules do not.

For example, it is exceedingly difficult to judge the case made by a prosecutor in a trial until we have heard the arguments for the defense. Only by stepping out of the perspective of the prosecutor and actually organizing the evidence in language designed to make the strongest case for the defense can we begin to grasp the true strength and weakness of the prosecutor’s case.

This approach is the only proper way to deal with the important issues we face in our lives, and I am amazed that we and our textbooks refuse to recognize it. The most basic issues simply do not reduce to unadulterated fact or arbitrary opinion. True, they often have a factual dimension. But characteristically, some of what is apparently empirically true is also arguable. And we are often faced with the problem of deciding which facts are most important, which should be made central, and which should be deemed peripheral or even irrelevant. Finally, despite the common view, facts do not speak for themselves. They must be rendered meaningful by interpretation, by explanation, by construal. Make your own list of the ten most important issues and see if this is not true (but beware, of course, the tendency to see your own answers to these issues as self-evident facts!).

## ◆ *Part II: Pedagogy*

Everyday life, in contrast to school, is filled with multilogical problems for which there are competing answers and so require dialogical thinking. Furthermore, even when subject matter can be algorithmically and monologically expressed, students need to approach that subject matter through dialogical thought which brings their own thinking into play. Teachers do not, by and large, recognize these facts, nor when it is pointed out to them, do they know how to take them into account in the classroom. Being habituated to didactic instruction, dialogical instruction that does not result in predictable “correct” answers is a puzzle to them. They do not know how to foster it. They do not know how to assess it. They do not know how to use it to aid students in mastering content.

There are four interrelated things teachers need to learn: 1) how to identify and distinguish multilogical from monological problems and issues, 2) how to teach Socratically, 3) how to use dialogical and dialectical thought to master content, and 4) how to assess dialogical and dialectical thought. I should add that one does not master these understandings overnight, but only by degrees over an extended period of time. They cannot be taught, for example, in a one-day workshop. Let us consider each of these four learnings in order.

### ◆ *Learning to Identify and Distinguish Multilogical from Monological Problems and Issues*

This involves distinguishing problems for which there is an established step-by-step procedure for solving them — What is the square root of 653? What is the boiling point of water? In what year did the American revolution begin? — from problems and issues that can be analyzed from different points of view leading to multiple competing answers, resolutions, or solutions — Was the American revolution justified? Should the colonists have used violence to achieve their ends? When should you conform to group pressure and when should you resist that pressure? What is the meaning of this story? What would a true friend do in this situation? What caused WWII? Could it have been avoided? How important is it to get a good education? How important is it to make a lot of money? Is money the root of all evil? What kind of a person are you? What are America’s real values? How can you tell what to believe and what not to believe? These kinds of questions, we should note, can be raised from the earliest school years: Who was right in your argument with your sister, she or you? When should you share your toys? Was it right for Jack (in “Jack and the Bean Stalk”) to take the golden eggs and the harp as well? Should the big Billy Goat have killed the Troll (in “Billy Goat Gruff”)? Is this the best rule to have to avoid accidents in the playground or can you think of a better one? Do the advertisements on TV for toys give you good information about toys, or do they mislead you about them?

Of course, though there are multiple conflicting answers possible to multi-logical questions, it does not follow that each is *equally* defensible or *equally* rational. The whole point of considering the reasoning behind conflicting positions is to assess their relative merits and debits in a rational way. After analysis and dialogue, we may be able to rule out some as simplistic, recognize the partiality of others, and gain some sense of what a deeper response to the issue would include. We will come out with better answers, if not *the* answer.

### ◆ *Socratic Questioning and Dialogical Discussion*

Dialogical discussion will naturally occur if teachers learn to stimulate student thinking through Socratic questioning. This consists in teachers wondering aloud about the meaning and truth of students' responses to questions. The Socratic teacher models a reflective, analytic listener. One that actively pursues clarity of expression. One that actively looks for evidence and reasons. One that actively considers alternative points of view. One that actively tries to reconcile differences of viewpoint. One that actively tries to find out not just what people think but whether what they think is actually so.

Socratic discussion allows students to develop and evaluate their thinking in comparison to that of other students. Since inevitably students respond to Socratic questions within their own points of view, the discussion inevitably becomes multi-dimensional.

By routinely raising root questions and root ideas in a classroom setting, multiple points of view get expressed, but in a context in which the seminal ideas, which must be mastered to master the content, are deeply considered and their interrelationships established.

Over time, students learn from Socratic discussions a sense of intellectual discipline and thoroughness. They learn to appreciate the power of logic and logical thinking. They learn that all thoughts can be pursued in at least four directions:

- 1) *Their origin:* How did you come to think this? Can you remember the circumstances in which you formed this belief?
- 2) *Their support:* Why do you believe this? Do you have any evidence for this? What are some of the reasons why people believe this? In believing this aren't you assuming that such and so is true? Is that a sound assumption do you think?
- 3) *Their conflicts with other thoughts:* Some people might object to your position by saying .... How would you answer them? What do you think of this contrasting view? How would you answer the objection that ...? and,
- 4) *Their implications and consequences:* What are the practical consequences of believing this? What would we have to do to put it into action? What follows from the view that ...? Wouldn't we also have to believe that ... in order to be consistent? Are you implying that ...?

Before a Socratic discussion, teachers should pre-think the issues and connections that underlie the area or subject to be discussed. Whenever possible they should figure out in advance what the fundamental ideas are and how they relate to fundamental problems. For example, before leading a Socratic discussion on the question "What is history?", teachers should pre-think the issue so that they are clear about the essential insights that the Socratic discussion is to foster, for example, that history is selective (it is not possible to include all of the past in a book), that historians make value judgments about what to include and exclude, that history is written from a point of view, and that historians with different view points often come to different historical judgments. Teachers should also recognize various related insights, for example, that all human thinking has a historical dimension (in that all our thinking is shaped by our life and times), that memory is a kind of internal historian, that the news is like the history of yesterday, that gossip is a form of historical thought, etc. This pre-thinking enables teachers to look for opportunities in discussion to help students to make connections and see the implications of their own thinking about history and things historical. Through Socratic discussion we do not teach students *our* view of history, but the ingredients in all historical views, however they may be particularized.

Of course, teachers must also follow up on the insights that are fostered through Socratic discussion. Hence, once a Socratic discussion has been held on the nature of history, students should be encouraged to raise questions about their history text. (What sorts of things would you guess were left out of this account of the battle? What point of view does the writer seem to have? Which of the sentences in this paragraph state facts? Which of the sentences interpret the facts or draw a conclusion from them? If you were a Native American do you think you would agree with this conclusion in your history text?... ) Students should also have follow-up assignments which require them to further develop the insights being fostered. (For example, "I'd like each of you to imagine that you are one of the colonists loyal to the king and to write one paragraph in which you list your reasons why you think that armed revolution is not justified.")

No matter how much pre-thinking has been done, however, actual Socratic discussion will proceed, not in a predictable or straightforward direction, but in a criss-crossing, back-and-forth movement. Because Socratic instructors continually encourage the students to explore how what they think about *x* relates to what they think about *y* and *z*, students' thinking moves back and forth between their own basic ideas and those being presented by the other students, between their own ideas and those expressed in a book or story, between their own thinking and their own experience, between ideas within one domain and those in another, in short, between any of a variety of perspectives. This dialogical process will sometimes become dialectical when ideas clash or are inconsistent.



◆ *Using Cooperative Learning to Foster  
Dialogical and Dialectical Thinking*

Cooperative Learning fosters dialogical and dialectical thinking since individual students will inevitably have different points of view and will need to argue out those differences. The key is students learning to assess their own thinking so that they can make logical choices among the various proposals and suggestions they meet in cooperative learning. For example, we want students in cooperative groups to Socratically question each other in a supportive way. We want them to develop confidence in their capacity to reason together to find insightful answers to important questions. To do this they must probe each other's thinking for its support and implications. Along the way they must develop a sensitivity to what they and others are assuming. Most importantly if cooperative learning is not to be *cooperative mislearning*, it is essential that students learn how to bring intellectual standards into their work, how to hold themselves and their classmates to standards of good reasoning and analysis.

◆ *Assessing Dialogical and Dialectical Thinking*

Since dialogical and dialectical activities focus on the process rather than the product of thinking, it is essential that both students and teachers learn how to assess thought processes. To do this it is essential that definite standards for thinking be established. Unfortunately, few teachers have had an education that emphasized the universal standards for thought. This deficiency is linked with the fact that the logic of thinking is not presently emphasized in schooling. Teachers must learn — while already in the classroom — how to distinguish and explain the difference between clear and unclear, precise and imprecise, specific and vague, relevant and irrelevant, consistent and inconsistent, logical and illogical, deep and superficial, complete and incomplete, significant and trivial, openminded and biased, adequate and inadequate ... reasoning and expression. Students, in turn, need to recognize their responsibility to express themselves in reasoning that is as clear, precise, specific, accurate, relevant, consistent, logical, deep, complete, and openminded as possible, irrespective of the subject matter. These are deep and substantial, even revolutionary, understandings. They provide an entirely new perspective on what knowledge and learning are all about.

◆ *How to Use Dialogical and  
Dialectical Thinking to Master Content*

Because students do not come to the classroom with blank slates for minds, because their thinking is already developing in a direction, because they have already formed ideas, assumptions, beliefs, and patterns of inference, because they can learn new ideas, assumptions, and beliefs only through the scaffolding of their previously formed thinking, it is essential that dialogical and dialectical thinking form the core of their learning. There is no way around the need of

minds to think their way to knowledge. Knowledge is discovered by thinking, analyzed by thinking, interpreted by thinking, organized by thinking, extended by thinking, and assessed by thinking. There is no way to take the thinking out of knowledge, neither is there a way to create a direct step-by-step path to knowledge that all minds can follow. In science classes students should be learning how to think scientifically, in math classes how to think mathematically, in history classes how to think historically, and so forth. It is scientific thinking that produces scientific knowledge, mathematical thinking that produces mathematical knowledge, historical thinking that produces historical knowledge. Dialogical exchange and dialectical clash are integral to the acquisition of all these forms of knowledge. To this day we have refused to face this reality.

### ◆ *Conclusion*

*Dialogical thinking* refers to thinking that involves a dialogue or extended exchange between different points of view, cognitive domains, or frames of reference. Whenever we consider concepts or issues deeply, we naturally explore their connections to other ideas and issues within different domains or points of view. Critical thinkers need to be able to engage in fruitful, exploratory dialogue, proposing ideas, probing their roots, considering subject matter insights and evidence, testing ideas, and moving between various points of view. Socratic questioning is one form of dialogical thinking.

*Dialectical thinking* refers to dialogical thinking conducted in order to test the strengths and weaknesses of opposing points of view. Court trials and debates are dialectical in form and intention. They pit idea against idea, reasoning against counter-reasoning in order to get at the truth of a matter. As soon as we begin to explore ideas, we find that some clash or are inconsistent with others. If we are to integrate our thinking, we need to assess which of the conflicting ideas we will accept and which reject, or which parts of the views are strong and which weak, or, if neither, how the views can be reconciled. Students need to develop dialectical reasoning skills, so that their thinking moves comfortably between divergent points of view or lines of thought, assessing the relative strengths and weaknesses of the evidence or reasoning presented. Dialectical thinking can be practiced whenever two conflicting points of view, arguments, or conclusions are under discussion.

Because at present both teachers and students are largely unpracticed in either dialogical or dialectical thinking, it is important to move instruction in this direction slowly and carefully as part of a reflectively designed, long-term staff development plan, one with a sufficiently rich theoretical base and pedagogical translation to allow for individual teachers to proceed at their own rates. I recommend an approach that focuses on lesson remodelling and redesign, and have written four books to aid teachers in this redesign of instruction. Nevertheless, most teachers need to work with other teachers to carry through needed reforms. They need to work together with much encouragement and many incentives. Very few districts have taken up the challenge. Most have created the mere appearance of change. In most, didacticism remains — unchallenged in its arrogance, in its self-deception, and in its fruitlessness.