Critical Thinking and Academic Subjects

✦✦ **Chapter 35**

The Contribution of
Philosophy to Thinking

Abstract

In this paper, originally part of "Philosophy and Cognitive Psychology", Paul argues for the power of philosophy and philosophical thinking for intellectual autonomy. He claims that even children have a need and right to think philosophically and are very much inclined to do so, but are typically discouraged by the didactic absolutistic answers and attitudes of adults. Consequently, the inquiring minds of children soon become jaded by the self-assured absolutistic environment which surrounds them.

The potential of children to philosophize is suggested in a transcript of a 4th grade classroom discussion of a series of abstract questions. Following the transcript, Paul illustrates a variety of ways in which traditional school subjects can be approached philosophically. He closes with a discussion of the values and intellectual traits fostered by philosophical thought, the skills and processes of thought, and the relation of philosophical to critical thought.

*I*n this paper I lay the foundation for a philosophy-based, in contrast to a psychology-based, approach to teaching critical thinking across the curriculum. I lay out the general theory and provide some examples of how it could be used to transform classroom instruction and activities. Nevertheless, I want to underscore the point that I lack the space to cover my subject comprehensively. Interested readers must independently pursue the leads I provide, to see the power and flexibility of philosophy-based approaches to critical thinking instruction. I must content myself with modest goals, with a few basic insights into philosophical thinking, with a few of its advantages for instruction.

There are three overlapping senses of *philosophy* that can play a role in explicating the nature of philosophical thinking: philosophy as a field of study, philosophy as a mode of thinking, and philosophy as a framework for thinking. In what follows, I focus on philosophy as a mode of and framework for thinking and will say least about it as a field of study. Nevertheless, some characterization of the field of philosophy is useful.

Philosophy is steeped in dialogical and dialectical thought. Philosophy is an art rather than a science, a discipline that formulates issues that can be approached from multiple points of view and invites critical dialogue and reasoned discourse between conflicting viewpoints. Critical thought and dis-

cussion are its main instruments of learning. More so than any other field, philosophy requires all participants to think their own way to whatever system of beliefs ultimately constitute their thought within the field. This entails that all philosophers develop their own unique philosophies.

In contrast, science students are not expected to construct their own science. Sciences have emerged because of the possibility of specializiation and joint work within a highly defined shared frame of reference. Its ground rules exclude what is not subject to quantification and measurement. Sciences are cooperative, collaborative ventures whose practitioners agree to limit strictly the range of issues they consider and how they consider them.

Philosophy, on the other hand, is largely an individualistic venture wherein participants agree, only in the broadest sense on the range and nature of the issues they will consider. Philosophers have traditionally been concerned with big questions, root issues that organize the overall framework of thinking itself, in all domains, not just one. Philosophers do not typically conduct *experiments*. They rarely form *hypotheses* or make *predictions* as scientists do. Philosophical tradition gives us a tapestry rich in the development of individual syntheses of ideas across multiple subject domains: syntheses carefully and precisely articulated and elaborately argued. There is reason for this basic difference between the history of science and that of philosophy.

Some questions, by their nature, admit of collaborative treatment and solution; others do not. For example, we do not need to individually test for the chemical structure of lead or determine the appropriate theory of that structure; we can rely on the conclusions of those who have done so. But we cannot learn the structure of our own lives or the best way to plan for the future by looking up the answer in a technical manual or having an answer determined for us by a collaborative scientific effort. We must each individually analyze these questions to obtain rationally defensible answers. There is a wide range of ways human lives can be understood and a variety of strategies for living them. Rarely, if ever, can answers to philosophical questions be validated by one person for another.

The method of philosophy, or the *mode* of thinking characteristic of philosophy, is that of critical discussion, rational cross examination, and dialectical exchange. Every person who would participate in that discussion must create and elaborate a framework for thinking comprehensively. This discipline in the mode of thinking characteristic of philosophy has roots in the ideal of learning to think with a clear sense of the ultimate foundations of one's thinking, of the essential logic of one's thought, and of significant alternative, competing ways of thinking.

Consider philosophical thinking as a framework for thought. When one engages in philosophical thinking, one thinks within a self-constructed network of assumptions, concepts, defined issues, key inferences, and insights. To think philosophically as a liberal, for example, is to think within a different framework of ideas than conservatives do. What is more, to think philosophically, in this sense, is to *know* that one is thinking within a different

framework of ideas than other thinkers. It is to know the foundations of liberalism compared to those of conservativism.

✦ Philosophical and Unphilosophical Minds: Philosophy as a Mode of Thinking and a Framework for Thinking

Perhaps the best way to show what lies at the heart of the uniqueness and power of philosophy is to consider the contrast in general between unphilosophical and philosophical minds. In doing so, I present the two as idealized abstractions for the purpose of clarifying a paradigm; I realize that no one perfectly illustrates these idealizations.

The unphilosophical mind thinks without a clear sense of the foundations of its own thought, without conscious knowledge of the most basic concepts, aims, assumptions, and values that define and direct it. The unphilosophical mind is unaware that it thinks within a system, within a framework, within, if you will, a *philosophy*. Consequently, the unphilosophical mind is trapped within the system it uses, unable to deeply understand alternative or competing systems. The unphilosophical mind tends toward an intra-system closedmindedness. The unphilosophical mind may learn to think within different systems of thought, if the systems are compartmentalized and apply in different contexts, but it cannot compare and contrast whole systems, because, at any given time, it thinks within a system without a clear sense of what it means to do so. This kind of intra-system thinking can be skilled, but it lacks foundational self-command. It functions well when confronted with questions and issues that fall clearly within its system, but is at its worse when facing issues that cross systems, require revising a system, or presuppose explicit critique of the system used.

Unphilosophical liberals, for example, would be hard pressed to think clearly and accurately within a conservative point of view, and hence would not do well with an issue like "What are some of the most important insights of conservatism?" Unphilosophical psychologists, to take another example, would find it difficult to integrate sociological or economic insights into their thinking. Indeed, thinking unphilosophically in almost any discipline means thinking reductionistically with respect to insights from other disciplines: one either reduces them to whatever can be absorbed into the established concepts in one's field or ignores them entirely.

An unphilosophical mind is at its best when routine methods, rules, or procedures function well and there is no need to critically reconceptualize them in the light of a broad understanding of one's framework for thinking. If one lacks philosophical insight into the underlying logic of those routines, rules, or procedures, one lacks the ability to mentally step outside of them and conceive of alternatives. As a result, the unphilosophical mind tends toward conformity to a system without grasping clearly what the system is, how it came to be thus, or how it might have been otherwise.

The philosophical mind, in contrast, routinely probes the foundations of its own thought, realizes its thinking is defined by basic concepts, aims, assumptions, and values. The philosophical mind gives serious consideration to alternative and competing concepts, aims, assumptions, and values, enters empathically into thinking fundamentally different from its own, and does not confuse its thinking with reality. By habitually thinking globally, the philosophical mind gains foundational self-command, and is comfortable when problems cross disciplines, domains, and frameworks. A philosophical mind habitually probes the basic principles and concepts that lie behind standard methods, rules, and procedures. The philosophical mind recognizes the need to refine and improve the systems, concepts, and methods it uses and does not simply conform to them. The philosophical mind deeply values gaining command over its own fundamental modes of thinking.

The discipline of philosophy is the only one at present that routinely fosters the philosophical mind, though there are philosophical minds at work in every discipline. The philosophical mind is most evident in other disciplines in those working on foundational concepts and problems. In everyday life, the philosophical mind is most evident in those who deeply value doing their own thinking about the basic issues and problems they face and giving serious reasoned consideration to the ideas and thinking of others. In everyday life, the philosophical mind is most evident in those not afraid to probe conventional thought, rules, mores, and values, those skeptical of standard answers and standard definitions of questions and problems.

In teaching, the philosophical mind is most evident in those who routinely probe the concepts, aims, assumptions, and values that underlie their teaching; who routinely raise fundamental issues through Socratic questions; who routinely encourage students to probe the foundation and source of their own ideas and those of others; and who routinely encourage students to develop their own philosophy or approach to life or learning based on their own disciplined, rational thought. Need I add that philosophical thinking is not habit for most?

✦ *Why Children Need to Think Philosophically*

There is a sense in which everyone has a philosophy, since human thought and actions are always embedded in a framework of foundational concepts, values, and assumptions which define a "system" of some sort. Humans are by nature inferential, meaning-creating animals. In this sense, all humans use "philosophies" and even in some sense create them. Even the thinking of very young children presupposes philosophical foundations, as Piaget so ably demonstrated. Of course, if by 'philosophy' we mean explicit and systematic reflection on the concepts, values, aims, and assumptions that structure thinking and underlie behavior, then in that sense most children do *not* philosophize. It all depends on whether one believes that one can have a philosophy without *thinking* one's way to it.

Most children have at least the impulse to philosophize and for a time seem driven by a strong desire to know the most basic *what* and *why* of things. Of course parents or teachers rarely cultivate this tendency. Usually children are given didactic answers in ways that discourage, rather than stimulate, further inquiry. Many parents and teachers seem to think that they or textbooks have appropriate and satisfactory answers to the foundational questions that children raise, and the sooner children accept these answers the better. Such authorities unwittingly encourage children to assent to, without truly understanding, basic beliefs. In effect, we teach answers to philosophical questions as though they were like answers to chemical questions. As a result, children lose the impulse to question, as they learn to mouth the standard answers of parents, peers, and other socializing groups. How many of these mouthed answers become a part of children's lived beliefs is another matter.

Children learn behaviors as well as explanations. They learn to act as well as to speak. Thus they learn to behave in ways inconsistent with much of their conscious talk and thought. Children learn to live, as it were, in different and only partially integrated worlds. They develop unconscious worlds of meaning that do not completely square with what they are told or think they believe. Some of these meanings become a source of pain, frustration, repression, fear, and anxiety. Some become a source of harmless fantasizing and day-dreaming. Some are embedded in action, albeit in camouflaged, or in tacit, unarticulated ways.

In any case, the process of unconsciously taking in or unknowingly constructing a variety of meanings outstrips the child's initial impulse to reflect on or question those meanings. In one sense, then, children become captives of the ideas and meanings whose impact on their own thought and action they do not themselves determine. They have in this sense two philosophies (only partially compatible with each other): one verbal but largely unlived; the other lived but mainly unverbalized. This split continues into adulthood. On the emotional level, it leads to anxiety and stress. On the moral level, it leads to hypocrisy and self-deception. On the intellectual level, it results in a condition in which lived beliefs and spontaneous thought are unintegrated with school learning which in turn is ignored in "real life" situations.

As teachers and parents we seldom consider the plight of children from this perspective. We tend to act as though there were no real need for children to reflect deeply about the meanings they absorb. We fail to see the conflicting meanings they absorb, the double messages that capture their minds. Typically our principal concern is that they absorb the meanings that we think are correct and act in ways that we find acceptable. Reflecting upon their thoughts and actions seems important to us only to get them to think or act correctly, that is, as we want them to think and act. We seldom question whether they deeply agree or even understand. We pay little attention as parents to whether or not conflicting meanings and double messages become an on-going problem for them.

In some sense we act as though we believe, and doubtless many do believe, that children have no significant capacity, need, or right to think for themselves. Many adults do not think that children can participate mindfully in the process which shapes their own minds and behavior. Of course, at the same time we often talk to our children as though they were somehow responsible for, or in control of, the ideas they express or act upon. This contradictory attitude toward children is rarely openly admitted. We need to deal explicitly with it.

I believe that children have the need, the capacity, and the *right* to freedom of thought, and that the proper cultivation of that capacity requires an emphasis on the philosophical dimension of thought and action. Again, by 'the philosophical dimension', I mean precisely the kind of deliberative thought that gives to thinkers the on-going disposition to mindfully create, analyze, and assess their own most basic assumptions, concepts, values, aims, and meanings, in effect to choose the very framework in which they think and on the basis of which they act. I would not go so far as to say, as Socrates was reputed to have said, that the unreflective life is not worth living, but I would say that an unreflective life is not a truly *free* life and is often a basic cause of personal and social problems. I claim at least this much, that philosophical thinking is necessary to freedom of thought and action and that freedom of thought and action are good in themselves and should be given a high priority in schooling. They are certainly essential for a democracy. How can the people rule, as the word *democracy* implies, if they do not think for themselves on issues of civic importance? And if they are not encouraged to think for themselves *in* school, why should they do so once they leave it?

Let me now discuss whether children are in fact capable of this sort of freedom of thought, reflection upon ultimate meanings, values, assumptions, and concepts. The question is both conceptual and empirical. On the conceptual side, the issue is one of *degree*. Only to the degree that children are encouraged in supportive circumstances to reflect philosophically, will they develop proficiency in it. Since few parents and teachers value this sort of reflection or are adept at cultivating it, it is understandable that children soon give up their instinctive philosophical impulses (the basic *why* and *what* questions). It would be foolish to assume that it is the *nature* of children to think and act unreflectively when indeed our experience indicates that they are socialized into unreflectiveness. Since we do not encourage children to philosophize why should they do so?

Furthermore, in many ways we penalize children for philosophizing. Children will sometimes innocently entertain an idea in conflict with the ideas of their parents, teachers, or peers. Such ideas are often ridiculed and the children made to feel ashamed of their thoughts. It is quite common, in other words, for people to penalize unconventional thought and reward conventional thought. When we think only as we are rewarded to think, however, we cease to think freely or deeply. Why should we think for ourselves if doing so may get us into trouble and if teachers, parents, and powerful peers provide authoritative didactic answers for us? Before we decide that children cannot

think for themselves about basic ideas and meanings, we ought to give them a real and extended opportunity to do so. No society has yet done this. Unless we are willing to exercise some faith in freedom of thought, we will never be in a position to reap the benefits of it or to discover its true limits, if any.

Let me now explore the conceptual side of the question further by suggesting some kinds of philosophical issues embedded, not only in the lives of children, but also in the lives of adults:

> Who am I? What am I like? What are the people around me like? What are people of different backgrounds, religions, and nations like? How much am I like others? How much am I unlike them? What kind of a world do I live in? When should I trust? When should I distrust? What should I accept? What should I question? How should I understand my past, the pasts of my parents, my ethnic group, my religion, my nation? Who are my friends? Who are my enemies? What is a friend? How am I like and unlike my enemy? What is most important to me? How should I live my life? What responsibilities do I have to others? What responsibilities do they have to me? What responsibilities do I have to my friends? Do I have any responsibilities to people I don't like? To people who don't like me? To my enemies? Do my parents love me? Do I love them? What is love? What is hate? What is indifference? Does it matter if others do not approve of me? When does it matter? When should I ignore what others think? What rights do I have? What rights should I give to others? What should I do if others do not respect my rights? Should I get what I want? Should I question what I want? Should I take what I want if I am strong or smart enough to get away with it? Who comes out ahead in this world, the strong or the good person? Is it worthwhile to be good? Are authorities good or just strong?

I do not assume that children must reflect on all or even most of the questions that professional philosophers consider — although the preceding list contains many concepts that professional philosophers tackle. To cultivate philosophical thinking, one does not force students to think in a sophisticated way before they are ready. Each student can contribute to a philosophical discussion thoughts which help other students to orient themselves within a range of thoughts, some of which support or enrich and some of which conflict with other thoughts. Different students achieve different levels of understanding. There is no reason to try to force any given student to achieve a particular level of understanding. But the point is that we can lead young students into philosophical discussions which help them begin to:

1. see the significance and relevance of basic philosophical questions to understanding themselves and the world about them,

2. understand the problematic character of human thought and the need to probe deeply into it,

3. gain insights into what it takes to make thinking more rational, critical, and fairminded,

4. organize their thinking globally across subject matter divisions,

5. achieve initial command over their own thought processes, and

6. come to believe in the value and power of their own minds.

In the transcript that follows, a normal 4th grade class is led to discuss a variety of basic ideas: how the mind works, the nature of mind, why different people interpret the same events differently, the relationship between emotions and mental interpretations, the nature and origin of personality, nature versus nurture, peer group influence on the mind, cultural differences, free will versus determinism, the basis for ethical and unethical behavior, the basis for reputation, the relation of reputation to goodness, mental illness, social prejudice and sociocentrism, and the importance of thinking for oneself. This transcript represents the first philosophical discussion this particular class had and although it is clear from some of their answers that their present degree of insight into the ideas being discussed is limited, it is also clear that they are capable of pursuing those insights and of articulating important philosophical ideas that could be explored in greater and greater depth over time.

✦ *Transcript*

The following is a transcript of a 4th grade Socratic discussion. The discussion leader was with these particular students for the first time. The purpose was to determine the status of the children's thinking on some of the abstract questions whose answers tend to define our broadest thinking. The students were eager to respond and often seemed to articulate responses that reflected potential insights into the character of the human mind, its relation to the body, the forces that shape us, the influence of parents and peer groups, the nature of morality and of ethnocentric bias. The insights are disjointed, of course, but the questions that elicited them and the responses that articulated them could be used as the basis of future discussions or simple assignments with these students.

→ *How does your mind work?*
    Where's your mind?

Student: In your head. (Numerous students point to their heads.)

→ *Does your mind do anything?*

Student: It helps you remember and think.

Student: It helps, like, if you want to move your legs. It sends a message down to them.

Student: This side of your mind controls this side of your body and that side controls this other side.

Student: When you touch a hot oven it tells you whether to cry or say ouch.

→ *Does it tell you when to be sad and when to be happy?*
    How does your mind know when to be happy and when to be sad?

Student: When you're hurt it tells you to be sad.

Student: If something is happening around you is sad.

Student: If there is lightning and you are scared.

Student: If you get something you want.

Student: It makes your body operate. It's like a machine that operates your body.

➤ *Does it ever happen that two people are in the same circumstance but one is happy and the other is sad? Even though they are in exactly the same circumstance?*

Student: You get the same toy. One person might like it. The other gets the same toy and he doesn't like the toy.

➤ *Why do you think that some people come to like some things and some people seem to like different things?*

Student: 'Cause everybody is not the same. Everybody has different minds and is built different, made different.

Student: They have different personalities?

➤ *Where does personality come from?*

Student: When you start doing stuff and you find that you like some stuff best.

➤ *Are you born with a personality or do you develop it as you grow up?*

Student: You develop it as you grow up.

➤ *What makes you develop one rather than another?*

Student: Like, your parents or something.

➤ *How can your parent's personality get into you?*

Student: Because you're always around them and then the way they act, if they think they are good and they want you to act the same way, then they'll sort of teach you and you'll do it.

Student: Like, if you are in a tradition. They want you to carry on something that their parents started.

➤ *Does your mind come to think at all the way the children around you think? Can you think of any examples where the way you think is like the way children around you think? Do you think you behave like other American kids?*

Student: Yes.

➤ *What would make you behave more like the kids around you than like Eskimo kids?*

Student: Because you're around them.

Student: Like, Eskimo kids probably don't even know what the word 'jump-rope' is. American kids know what it is.

➤ *And are there things that the Eskimo kids know that you don't know about?*

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Student: Yeah, because you could try to be good. I mean, a lot of people think this one person's really smart but this other person doesn't have nice clothes but she tries really hard and people don't want to be around her.

➤ *So sometimes people think somebody is real good and they're not and sometimes people think that somebody is real bad and they're not. Like if you were a crook, would you let everyone know you're a crook?*

Students: [Chorus of "NO!"]

➤ *So some people are really good at hiding what they are really like. Some people might have a good reputation and be bad; some people might have a bad reputation and be good.*

Student: Like, everyone might think you were good but you might be going on dope or something.

Student: Does reputation mean that if you have a good reputation you want to keep it just like that? Do you always want to be good for the rest of your life?

➤ *I'm not sure ....*

Student: So if you have a good reputation you try to be good all the time and don't mess up and don't do nothing?

➤ *Suppose somebody is trying to be good just to get a good reputation — why are they trying to be good?*

Student: So they can get something they want and they don't want other people to have?

Student: They might be shy and just want to be left alone.

Student: You can't tell a book by how it's covered.

➤ *Yes, some people are concerned more with their cover than their book. Now let me ask you another question. So if its true that we all have a mind and our mind helps us to figure out the world and we are influenced by our parents and the people around us, and sometimes we choose to do good things and sometimes we choose to do bad things, sometimes people say things about us and so forth and so on.... Let me ask you: Are there some bad people in this world?*

Student: Yeah.

Student: Terrorists and stuff.

Student: Nightstalker.

Student: The TWA hijackers.

Student: Robbers.

Student: Rapers.

Student: Bums.

➤ *Bums, are they bad?*

Student: Well, sometimes.

Student: The Klu Klux Klan.

Student: The Bums ... not really, cause they might not look good but you can't judge them by how they look. They might be really nice and everything.

➤ *O.K., so they might have a bad reputation but be good, after you care to know them. There might be good bums and bad bums.*

Student: Libyan guys and Machine gun Kelly.

➤ *Let me ask you, do the bad people think they're bad?*

Student: A lot of them don't think they're bad but they are. They might be sick in the head.

➤ *Yes, some people are sick in their heads.*

Student: A lot of them (bad guys) don't think they're bad.

➤ *Why did you say Libyan people?*

Student: Cause they have a lot 'o terrorists and hate us and bomb us ....

➤ *If they hate us do they think we are bad or good?*

Student: They think we are bad.

➤ *And we think they are bad? And who is right?*

Student: Usually both of them.

Student: None of us are really bad!

Student: Really, I don't know why our people and their people are fighting. Two wrongs don't make a right.

Student: It's like if there was a line between two countries, and they were both against each other, if a person from the first country crosses over the line, they'd be considered the bad guy. And if a person from the second country crossed over the line he'd be considered the bad guy.

➤ *So it can depend on which country you're from who you consider right or wrong, is that right?*

Student: Like a robber might steal things to support his family. He's doing good to his family but actually bad to another person.

➤ *And in his mind do you think he is doing something good or bad?*

Student: It depends what his mind is like. He might think he is doing good for his family or he might think he is doing bad for the other person.

Student: It's like the underground railroad a long time ago. Some people thought it was bad and some people thought it was good.

➤ *But if lots of people think something is right and lots of people think something is wrong, how are you supposed to figure out the difference between right and wrong?*

Student: Go by what you think!

➤ *But how do you figure out what to think?*

Student: Lots of people go by other people.

➡ *But somebody has to decide for themselves, don't they?*

Student: Use your mind?

➡ *Yes, let's see, suppose I told you: "You are going to have a new classmate. Her name is Sally and she's bad." Now, you could either believe me or what could you do?*

Student: You could try to meet her and decide whether she was bad or good.

➡ *Suppose she came and said to you: "I'm going to give you a toy so you'll like me." And she gave you things so you would like her, but she also beat up on some other people, would you like her because she gave you things?*

Student: No, because she said I'll give you this so you'll like me. She wouldn't be very nice.

➡ *So why should you like people?*

Student: Because they act nice to you.

➡ *Only to you?*

Student: To everybody!

Student: I wouldn't care what they gave me. I'd see what they're like inside.

➡ *But how do you find out what's on the inside of a person?*

Student: You could ask, but I would try to judge myself.

Socratic questioning is flexible. The questions asked at any given point will depend on what the students say, what ideas the teacher wants to pursue, and what questions occur to the teacher. Generally, Socratic questions raise basic issues, probe beneath the surface of things, and pursue problematic areas of thought.

The above discussion could have gone in a number of different directions. For instance, rather than focussing on the mind's relationship to emotions, the teacher could have pursued the concept 'mind' by asking for more examples of its functions, and having students group them. The teacher could have followed up the response of the student who asked, "Does reputation mean that if you have a good reputation you want to keep it just like that?" He might, for instance, have asked the student why he asked that, and asked the other students what they thought of the idea. Such a discussion may have developed into a dialogical exchange about reputation, different degrees of goodness, or reasons for being bad. Or the concept 'bad people' could have been pursued and clarified by asking students why the examples they gave were examples of bad people. Students may then have been able to suggest tentative generalizations which could have been tested and probed through further questioning. Instead of exploring the influence of perspective on evaluation, the teacher might have probed the idea, expressed by one student, that no one is "really bad". The student could have been asked to explain the remark, and other students could have been asked for their responses. In

these cases and others, the teacher has a choice between any number of equally thought provoking questions. No one question is the 'right' question.

A general discussion such as this lays the foundation for subsequent discussions by raising and briefly covering a variety of interrelated issues. This can be followed up in small group discussions or made the basis of brief writing assignments or integrated into the discussion of literature, history, or other subject areas. Note the variety of questions that were raised in the preceding discussion:

1. *Is the mind like a machine that operates your body?*

2. *How is it influenced by events?*
   If something happening around you is sad.

   If you get something you want.

3. *How is it influenced by its own interpretations and meanings?*
   You get the same toy. One person might like it. The other gets the same toy and he doesn't like the toy.

   When you start doing stuff and you find that you like some stuff best.

4. *How is it shaped by significant persons like parents?*
   Because you're always around them and then the way they act, if they think they are good and they want you to act the same way, then they'll sort of teach you and you'll do it.

5. *How is it shaped by cultural forces like peer groups?*
   Because you're around them.

   Like, Eskimo kids probably don't even know what the word 'jump-rope' is. American kids know what it is.

   And also we don't have to dress like them or act like them and they have to know when a storm is coming so they won't get trapped outside.

6. *Does free will involve more than just inwardly <u>deciding</u>?*
   You can't just decide you want to be smart, you have to work for it.

   You got to work to be smart just like you got to work to get your allowance.

   Sometimes I think I've been bad too long and I want to go to school and have a better reputation, but sometimes I feel like just making trouble and who cares.

7. *Are minds sometimes deceived by others or self-deceived?*
   Like, everyone might think you were good but you might be going on dope or something.

   You can't tell a book by how it's covered.

   The bums, ... not really 'cause they might not look good but you can't judge them by how they look. They might be really nice and everything.

   A lot of them don't think they're bad but they are. They might be sick in the head.

   A lot of them (bad guys) don't think they're bad.

It depends what his mind is like. He might think he is doing good for his family or he might think he is doing bad for the other person.

Yeah, because you could try to be good. I mean, a lot of people think this one person's really smart but this other person doesn't have nice clothes but she tries really hard and people don't want to be around her.

8. *What are people really like? Should you approach anyone as if they were evil?*
None of us are really bad!

Really, I don't know why our people and their people are fighting. Two wrongs don't make a right.

They might be shy and just want to be left alone.

9. *Should you think as others think or do your own thinking?*
Lots of people go by other people.

You could ask, but I would try to judge myself.

You could try to meet her and decide whether she was bad or good.

When teachers approach their subjects philosophically, they make it much easier for students to begin to integrate their thinking across subject matter divisions. In the preceding discussion, for example, the issues considered involved personal experience, psychology, sociology, ethics, culture, and philosophy. The issues, philosophically put, made these diverse areas relevant to each other. And just as one might inquire into a variety of issues by first asking a basic philosophical question, so one might proceed in the other direction: first asking a question within a subject area and then, by approaching it philosophically, explore its relationships to other subjects. These kinds of transitions are quite natural and unforced in a philosophical discussion, because all dimensions of human study and experience are indeed related to each other. We would see this if we could set aside the blinders that usually come with conventional discipline-specific instruction. By routinely considering root questions and root ideas philosophically, we naturally pursue those connections freed of these blinders.

As teachers teaching philosophically, we are continually interested in what the students themselves think on basic matters and issues. We continually encourage students to explore how what they think about X relates to what they think about Y and Z. This necessarily requires that students' thought moves back and forth between their own basic ideas and those presented in class by other students, between their own ideas and those expressed in a book, between their thinking and their experiences, between ideas within one domain and those in another.

This *dialogical* process (moving back and forth between divergent domains and points of view) will sometimes become *dialectical* (some ideas will clash or be inconsistent with others). The act of *integrating* thinking is deeply tied to the act of *assessing* thinking, because, as we consider a diversity of ideas, we discover that many of them contradict each other. Teachers should introduce the criti-

cal, analytic vocabulary of English (to be discussed presently) into classroom talk, so that students increasingly learn standards and tools they can use to make their integrative assessments. Skilled use of such terms as 'assumes', 'implies', and 'contradicts' is essential to rational assessment of thinking.

It would be unrealistic to expect students to suddenly and deeply grasp the roots of their own thinking, or to immediately be able to honestly and fairmindedly assess it — to instantly weed out all beliefs to which they have not consciously assented. In teaching philosophically, one is continually priming the pump, as it were, continually encouraging responsible autonomy of thought, and making progress in degrees across a wide arena of concerns. The key is to continually avoid forcing the student to acquiesce to authoritative answers without understanding them. To the extent that students become submissive in their thinking, they stop thinking for themselves. When they comply tacitly or passively without genuine understanding, they are set back intellectually.

To cultivate students' impulses to think philosophically, we must continually encourage them to believe that they can figure out where they stand on root issues, that they themselves have something worthwhile to say, and that what they have to say should be given serious consideration by the other students and the teacher.

All subjects, in sum, can be taught philosophically or unphilosophically. Let me illustrate by using the subject of history. Since philosophical thinking tends to make our most basic ideas and assumptions explicit, by using it we can better orient ourselves toward the subject as a whole and mindfully integrate the parts into the whole.

Students are introduced to history early in their education, and that subject area is usually required through high school and into college, and with good reason. But the unphilosophical way history is often taught fails to develop students' ability to think historically for themselves. Indeed, history books basically tell students what to believe and what to think about history. Students have little reason in most history classes to relate the material to the framework of their own ideas, assumptions, or values. Students do not know that they have a philosophy and even if they did it is doubtful that without the stimulation of a teacher who approached the subject philosophically they would see the relevance of history to it.

But consider the probable outcome of teachers raising and facilitating discussion questions such as the following:

> What is history? Is everything that happened part of history? Can everything that happened be put into a history book? Why not? If historians have to select some events to include and leave out others, how do they do this? If this requires that historians make value judgments about what is important, is it likely that they will all agree? Is it possible for people observing and recording events to be biased or prejudiced? Could a historian be biased or prejudiced? How would you find out? How do people know what caused an event? How do people know what outcomes an event

had? Would everyone agree about causes and outcomes? If events, to be given meaning, have to be interpreted from some point of view, what is the point of view of the person who wrote our text?

Do you have a history? Is there a way in which everyone develops an interpretation of the significant events in his or her own life? If there is more than one point of view that events can be considered from, could you think of someone in your life who interprets your past in a way different from you? Does it make any difference how your past is interpreted? How are people sometimes harmed by the way in which they interpret their past?

These questions would not, of course, be asked at once. But they should be the *kind* of question routinely raised as part of stimulating students to take history seriously, to connect it to their lives, minds, values, and actions. After all, many of the most important questions we face in everyday life do have a significant historical dimension, but that dimension is not given by a bare set of isolated facts. For example, arguments between spouses often involve disagreements on how to interpret events or patterns of past events or behaviors. How we interpret events in our lives depends on our point of view, basic values and interests, prejudices, and so forth.

Few of us are good historians or philosophers in the matter of our own lives. But then, no one has encouraged us to be. No one has helped us grasp these kinds of connections nor relate to our own thought or experience in these ways. We don't see ourselves as shaping our experience within a framework of meanings, because we have not learned how to isolate and identify central issues in our lives. Rather we tend to believe, quite egocentrically, that we directly and immediately grasp life as it is. The world must be the way we see it, because we see nothing standing between us and the world. We seem to see it directly and objectively. We don't really see the need therefore to consider seriously other ways of seeing or interpreting it.

As we identify our point of view (philosophy) explicitly, and deliberately put its ideas to work in interpreting our world, including seriously considering competing ideas, we are freed from the illusion of absolute objectivity. We begin to recognize egocentric subjectivity as a serious problem in human affairs. Our thought begins to grapple with this problem in a variety of ways. We begin to discover how our fears, insecurities, vested interests, frustrations, egocentricity, ethnocentricity, prejudices, and so forth, blind us. We begin to develop intellectual humility. We begin, in short, to think philosophically. Children have this need as much as adults, for children often take in and construct meanings that constrain and frustrate their development and alienate them from themselves and from healthy relationships to others.

✦ *Values and Intellectual Traits*

Philosophical thinking, like all human thinking, is infused with values. But those who think philosophically make it a point to understand and

assent to the values that underlie their thought. One thinks philosophically because one *values* coming to terms with the meaning and significance of one's life. If we do so sincerely and well, we recognize problems that challenge us to decide the kind of person we want to make ourselves, including deciding the kind of mind we want to have. We have to make a variety of value judgments about ourselves regarding, among other things, fears, conflicts, and prejudices. This requires us to come to terms with the traits of mind we are developing. For example, to be truly open to knowledge, one must become intellectually humble. But intellectual humility is connected with other traits, such as intellectual courage, intellectual integrity, intellectual perseverance, intellectual empathy, and fairmindedness. The intellectual traits characteristic of our thinking become for the philosophical thinker a matter of personal concern. Philosophical reflection heightens this concern.

Consider this excerpt from a letter from a teacher with a Masters 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.

This is a good example of intellectual humility and, like all intellectual humility, is based on a philosophical insight into the nature of knowing. It is reminiscent of the ancient Greek insight that Socrates himself was the wisest of the Greeks because only he realized how little he really knew. Socrates developed this insight as a result of extensive, deep questioning of the knowledge claims of others. He, like all of us, had to think his way to this insight and did so by raising the same basic *what* and *why* questions that children often ask. We as teachers cannot hand this insight to children on a silver platter. All persons must do for themselves the thinking that leads to it.

Unfortunately, though intellectual virtues cannot be conditioned into people, intellectual failings can. Because of the typically unphilosophical way most instruction is structured, intellectual arrogance rather than humility is typically fostered, especially in those who have retentive minds and can repeat like parrots what they have heard or read. Students are routinely rewarded for giving standard textbook answers and encouraged to believe that they understand what has never been justified by their own thinking. To move toward intellectual humility most students (and teachers) need to think broadly, deeply, and foundationally about most of what they have "learned", as the teacher in the previous example did. Such questioning, in turn, requires intellectual courage, perseverance, and faith in one's ability to think one's way to understanding and insight.

Genuine intellectual development requires people to develop intellectual traits, traits acquired only by thinking one's way to basic philosophical insights. Philosophical thinking leads to insights which in turn shape basic skills of thought. Skills, values, insights, and intellectual traits are mutually and dynamically interrelated. It is the whole person who thinks, not some fragment of the person.

For example, intellectual empathy requires the ability to reconstruct accurately the viewpoints and reasoning of others and to reason from premises, assumptions, and ideas other than one's own. But if one has not developed the philosophical insight that different people often think from divergent premises, assumptions, and ideas, one will never appreciate the need to entertain them. Reasoning from assumptions and ideas other than our own will seem absurd to us precisely to the degree that we are unable to step back philosophically and recognize that differences exist between people in their very frameworks for thinking.

Philosophical differences are common, even in the lives of small children. Children often reason from the assumption that their needs and desires are more important than anyone else's to the conclusion that they ought to get what they want in this or that circumstance. It often seems absurd to children that they are not given what they want. They are trapped in their egocentric viewpoints, see the world from within them, and unconsciously take their viewpoints (their philosophies, if you will) to define reality. To work out of this intellectual entrapment requires time and much reflection.

To develop consciousness of the limits of our understanding we must attain the *courage* to face our prejudices and ignorance. To discover our prejudices and ignorance in turn we often have to *empathize* with and reason within points of view toward which we are hostile. To achieve this end, we must *persevere* over an extended period of time, for it takes time and significant effort to learn how to empathically enter a point of view against which we are biased. That effort will not seem justified unless we have the *faith in reason* to believe we will not be tainted or taken in by whatever is false or misleading in this opposing viewpoint. Furthermore, the belief alone that we can survive serious consideration of alien points of view is not enough to motivate most of us to consider them seriously. We must also be motivated by an *intellectual sense of justice*. We must recognize an intellectual *responsibility* to be fair to views we oppose. We must feel *obliged* to hear them in their strongest form to ensure that we do not condemn them out of ignorance or bias.

If we approach thinking or teaching for thinking atomistically, we are unlikely to help students gain the kind of global perspective and global insight into their minds, thought, and behavior which a philosophical approach to thinking can foster. Cognitive psychology tends to present the mind and dimensions of its thinking in just this atomistic way. Most importantly, it tends to leave out of the picture what should be at its very center: the active, willing, judging agent. The character of our mind is one with our moral character. How we think determines how we behave and how we

behave determines who we are and who we become. We have a moral as well as an intellectual responsibility to become fairminded and rational, but we will not become so unless we cultivate these traits through specific modes of thinking. From a philosophical point of view, one does not develop students' thinking skills without in some sense simultaneously developing their autonomy, their rationality, and their character. This is not fundamentally a matter of drilling the student in a battery of skills. Rather it is essentially a matter of orchestrating activities to continually stimulate students to express and to take seriously their own thinking: what it assumes, what it implies, what it includes, excludes, highlights, and foreshadows; and to help the student do this with intellectual humility, intellectual courage, intellectual empathy, intellectual perseverance, and fairmindedness.

✦ *The Skills and Processes of Thinking*

Philosophers do not tend to approach the micro-skills and macro-processes of thinking from the same perspective as cognitive psychologists. Intellectual skills and processes are approached not from the perspective of the needs of empirical research but from the perspective of achieving personal, rational control. The philosophical is, as I have suggested, a *person-centered* approach to thinking. Thinking is always the thinking of some actual person, with some egocentric and sociocentric tendencies, with some particular traits of mind, engaged in the problems of a particular life. The need to understand one's own mind, thought, and action cannot be satisfied with information from empirical studies about aspects or dimensions of thought. The question foremost in the mind of the philosopher is not "How should I conceive of the various skills and processes of the human mind to be able to conduct empirical research on them?" but "How should I understand the elements of thinking to be able to analyze, assess, and rationally control my own thinking and accurately understand and assess the thinking of others?" Philosophers view thinking from the perspective of the needs of the thinker trying to achieve or move toward an intellectual and moral ideal of rationality and fairmindedness. The tools of intellectual analysis result from philosophy's 2,500 years of thinking and thinking about thinking.

Since thinking for one's self is a fundamental presupposed value for philosophy, the micro-skills philosophers use are intellectual moves that a reasoning person continually makes, independent of the subject matter of thought. Hence, *whenever one is reasoning,* one is reasoning about some issue or problem (hence needs skills for analyzing and clarifying issues and problems). Likewise, *whenever one is reasoning,* one is reasoning from some point of view or within some conceptual framework (hence needs skills for analyzing and clarifying interpretations or interpretive frameworks.) Finally, *whenever one is reasoning,* one is, in virtue of one's inferences, coming to some conclusions from some beliefs or premises which, in turn, are based on

some assumptions (hence needs skills for analyzing, clarifying, and evaluating beliefs, judgments, inferences, implications, and assumptions.) For virtually any reasoning, one needs a variety of interrelated processes and skills.

Hence, from the philosophical point of view, the fundamental question is not whether one is solving problems or making decisions or engaging in scientific inquiry or forming concepts or comprehending or composing or arguing, precisely because one usually does most or all of them in *every* case. Problem solving, decision-making, concept formation, comprehending, composing, and arguing are in some sense common to all reasoning. What we as reasoners need to do, from the philosophical point of view, is not to decide which of these things we are doing, but rather to orchestrate any or all of the following macro-processes:

1) *Socratic Questioning:* questioning ourselves or others so as to make explicit the salient features of our thinking:

   a) What precisely is at issue? Is this the fairest way to put the issue?

   b) From what point of view are we reasoning? Are there alternative points of view from which the problem or issue might be approached?

   c) What assumptions are we making? Are they justified? What alternative assumptions could we make instead?

   d) What concepts are we using? Do we grasp them? Their appropriateness? Their implications?

   e) What evidence have we found or do we need to find? How dependable is our source of information?

   f) What inferences are we making? Are those inferences well supported?

   g) What are the implications of our reasoning?

   h) How does our reasoning stand up to competing or alternative reasoning?

   i) Are there objections to our reasoning we should consider?

2) *Conceptual Analysis:* Any problematic concepts or uses of terms must be analyzed and their basic logic set out and assessed. Have we done so?

3) *Analysis of the Question-at-Issue:* Whenever one is reasoning, one is attempting to settle some question at issue. But to settle a question, one must understand the kind of question it is. Different questions require different modes of settlement. Do we grasp the precise demands of the question-at-issue?

4) *Reconstructing Alternative Viewpoints in their Strongest Forms:* Since whenever one is reasoning, one is reasoning from a point of view or within a conceptual framework, one must identify and reconstruct those views. Have we empathically reconstructed the relevant points of view?

5) *Reasoning Dialogically and Dialectically:* Since there are almost always alternative lines of reasoning about a given issue or problem, and since a reasonable person sympathetically considers them, one must engage in dialectical reasoning. Have we reasoned from a variety of points of view (when relevant) and rationally identified and considered the strengths and weaknesses of these points of view as a result of this process?

Implicit in the macro-processes, as suggested earlier, are identifiable micro-skills. These constitute moves of the mind while thinking in a philosophical, and hence in a rational, critically-creative way. The moves are marked in the critical-analytic vocabulary of everyday language. Hence in Socratically questioning someone we are engaging in a *process* of thought. Within that process we make a variety of moves. We can make those moves explicit by using analytic terms such as these:

> claims, assumes, implies, infers, concludes, is supported by, is consistent with, is relevant to, is irrelevant to, has the following implications, is credible, plausible, clear, in need of analysis, without evidence, in need of verification, is empirical, is conceptual, is a judgment of value, is settled, is at issue, is problematic, is analogous, is biased, is loaded, is well confirmed, is theoretical, hypothetical, a matter of opinion, a matter of fact, a point of view, a frame of reference, a conceptual framework, etc.

To put the point another way, to gain command of our thinking we must be able to take it apart and put it back together in light of its *logic,* the patterns of reasoning that support it, oppose it, and shed light on its rational acceptability. We don't need a formal or technical language to do this, but we do need a command of the critical-analytic terms available in ordinary English. Their careful use helps discipline, organize, and render self-conscious our ordinary inferences and the concepts, values, and assumptions that underlie them.

✦ Philosophical and Critical Thinking

Those familiar with some of my other writings will recognize that what I am here calling *philosophical* thinking is very close to what I have generally called *strong sense critical thinking.* The connection is not arbitrary. The ideal of strong sense critical thinking is implicit in the Socratic philosophical ideal of living a reflective life (and thus achieving command over one's mind and behavior). Instead of absorbing their philosophy from others, people can, with suitable encouragement and instruction, develop a critical and reflective attitude toward ideas and behavior. Their outlook and interpretations of themselves and others can be subjected to serious examination. Through this process, our beliefs become more our own than the product of our unconscious absorption of others' beliefs. Basic ideas such as 'history', 'science', 'drama', 'mind', 'imagination', and 'knowledge' become organized by the criss-crossing paths of one's reflection. They cease to be compartmentalized subjects. The philosophical questions one raises about history cut across those raised about the human mind, science, knowledge, and imagination. Only deep philosophical questioning and honest criticism can protect us from the pronounced human tendency to think in a self-serving way. It is common to question only within a fundamentally unquestioned point of

view. We naturally use our intellectual skills to defend and buttress those concepts, aims, and assumptions already deeply rooted in our thought.

The roots of thinking determine the nature, direction, and quality of that thinking. If teaching for thinking does not help students understand the roots of their thinking, it will fail to give them real command over their minds. They will simply make the transition from uncritical thought to weak sense critical thought. They will make the transition from being unskilled in thinking to being narrowly, closedmindedly skilled.

David Perkins (1986) has highlighted this problem from a somewhat different point of view. In studying the relationship between people's scores on standard IQ tests and their openmindedness, as measured by their ability to construct arguments against their points of view on a public issue, Perkins found that,

> intelligence scores correlated substantially with the degree to which subjects developed arguments thoroughly on their own sides of the case. However, there was no correlation between intelligence and elaborateness of arguments on the other side of the case. In other words, the more intelligent participants invested their greater intellectual endowment in bolstering their own positions all the more, not in exploring even-handedly the complexities of the issue.

Herein lies the danger of an approach to thinking that relies fundamentally, as cognitive psychology often does, on the goal of technical competence, without making central the deeper philosophical or normative dimensions of thinking. Student skill in thinking may increase, but whatever narrowness of mind or lack of insight, whatever intellectual closedmindedness, intellectual arrogance, or intellectual cowardice the students suffer, will be supported by that skill. It is crucial therefore that this deeper consideration of the problem of thinking be highlighted and addressed in a significant and global manner. Whether one labels it 'philosophical' thinking or 'strong sense critical thinking' or 'thinking that embodies empathy and openmindedness' is insignificant.

A similar point can be made about the thinking of teachers. If we merely provide teachers with exercises for their students that do no more than promote technical competence in thinking, if inservice is not long-term and designed to develop the critical thinking of teachers, they will probably be ineffective in fostering the thinking of their students.

Teachers need to move progressively from a didactic to a critical model of teaching. In this process, many old assumptions will have to be abandoned and new ones taken to heart as the basis for teaching and learning. This shift can be spelled out systematically as follows.

	Theory of Knowledge, Learning, and Literacy	
Assumption about	*Didactic Theory*	*Critical Theory*
1. The fundamental needs of students	That students need to be taught more or less *what* to think, not *how* to think; they will learn the "how" if they learn the "what".	That students need to be taught *how* not *what* to think; they should learn significant content by considering live issues that stimulate them to gather, analyze, and assess that content.
2. The nature of knowledge	That knowledge is independent of the thinking that generates, organizes, and applies it.	That all knowledge of "content" is generated, organized, applied, analyzed, synthesized, and assessed by thinking; that one must *think* to truly gain knowledge.
3. Model of the educated person	That an educated, literate person is fundamentally analogous to an encyclopedia or a data bank, directly comparing situations in the world with facts that he or she has absorbed.	That an educated, literate person is fundamentally a repository of strategies, principles, concepts, and insights embedded in processes of thought rather than in atomic facts.
4. The nature of knowledge	That knowledge, truth, and understanding can be transmitted from one person to another by verbal statements in the form of lectures or didactic teaching.	That knowledge and truth can rarely, and insight never, be transmitted from one person to another by the transmitter's verbal statements alone.
5. The nature of listening	That students do not need to be taught skills of listening to learn to pay attention — fundamentally a matter of self-discipline and will power.	That students need to be taught how to listen critically — an active and skilled process that can be learned by degrees with various levels of proficiency.
6. The relationship of basic skills to thinking skills	That the basic skills of reading and writing can be taught without emphasis on higher order critical thinking.	That the basic skills of reading and writing are inferential and require critical thinking; that critical reading and writing involve raising and answering probing critical questions.

| | Theory of Knowledge, Learning, and Literacy | |
Assumption about	Didactic Theory	Critical Theory
7. The status of questioning	That students who have no questions typically are learning well, while students with a lot of questions are experiencing difficulty in learning; that doubt and questioning weaken belief.	That students who have no questions typically are not learning — while having pointed and specific questions is a significant sign of learning. Doubt and questioning, by deepening understanding, strengthen belief by putting it on more solid ground.
8. The desirable classroom environment	That quiet classes with little student talk are typically reflective of students learning while classes with a lot of student talk are typically disadvantaged in learning.	That quiet classes with little student talk are typically classes with little learning while classes with much student talk focused on live issues is a sign of learning.
9. The view of knowledge (atomistic vs. holistic)	That knowledge and truth can typically be learned best by being broken down into elements, and the elements into sub-elements, each taught sequentially and atomically. Knowledge is additive.	That knowledge and truth is heavily systemic and holistic and can be learned only by many acts of synthesis, moving from wholes to parts.
10. The place of values	That people can gain significant knowledge without seeking or valuing it, and hence that education can take place without significant transformation of values for the learner.	That people gain only the knowledge they seek and value. All other learning is superficial and transitory. All genuine education transforms the basic values of the person educated.
11. The importance of being aware of one's own learning processes	That understanding the mind and how it functions, its epistemological health and pathology, are not important or necessary parts of learning.	That understanding the mind and how it functions, its health and pathology, are important and necessary parts of learning.

	Theory of Knowledge, Learning, and Literacy	
Assumption about	*Didactic Theory*	*Critical Theory*
12. The nature and correction of misconceptions	That ignorance is a vacuum or simple lack, and that student prejudices, biases, misconceptions, and ignorance are automatically replaced by their being given knowledge.	That prejudices, biases, and misconceptions are built up through actively constructed inferences embedded in experience and must be broken down through a similar process.
13. The level of understanding desired	That students need not understand the rational ground or deeper logic of what they learn in order to absorb knowledge.	That rational assent is essential for any genuine learning and that an in-depth understanding of basic concepts and principles is essential for rational learning.
14. Depth versus breadth	That it is more important to cover a great deal of knowledge or information superficially than a smaller amount in depth.	That it is more important to cover a small amount of knowledge or information in depth than to cover a great deal of knowledge superficially.
15. Role definition for teacher and student	That the roles of teacher and learner are distinct and should not be blurred.	That people learn best by teaching or explaining to others what they know.
16. The correction of ignorance	That the teacher should correct the students' ignorance by telling them what they do not know.	That students need to learn to distinguish for themselves what they know from what they do not.
17. The responsibility for learning	That the teacher has the fundamental responsibility for student learning. Teachers and texts provide information, questions, and drill.	That progressively the student should be given increasing responsibility for his or her own learning.
18. The transfer of learning to everyday situations	That students will automatically transfer the knowledge that they learn in didactically taught courses to relevant real-life situations.	That most of what students learn in didactically taught courses is either forgotten or rendered "inert", and that the most significant transfer is achieved by in-depth learning which focuses on experiences meaningful to the student.

| | Theory of Knowledge, Learning, and Literacy | |
Assumption about	Didactic Theory	Critical Theory
19. Status of personal experiences	That the personal experience of the student has no essential role to play in education.	That the personal experience of the student is essential to all schooling at all levels and in all subjects; that it is a crucial part of the content to be processed.
20. The assessment of knowledge acquisition	That a student who can correctly answer questions, provide definitions, and apply formulae while taking tests has proven his or her knowledge or understanding of those details.	That students can often provide correct answers, repeat definitions, and apply formulae while yet not *understanding* those questions, definitions, or formulae.
21. The authority validating knowledge	That learning is essentially a private monological process in which learners can proceed more or less directly to established truth under the guidance of an expert in such truth. The authoritative answers that the teacher has are the fundamental standards for assessing students' learning.	That learning is essentially public, communal, dialogical, and dialectical. Learners must engage in much back-tracking, misconception, self-contradiction, and frustration in the process. The fundamental standards for assessing student learning are not authoritative answers but authoritative standards.

✦ Bringing a Philosophical Approach into the Classroom

Unfortunately a general case for the contribution of philosophy to thinking and to teaching for thinking, such as this one, must of necessity lack a good deal of the concrete detail regarding how one would, as a practical matter, translate the generalities discussed here into action in the classroom or in everyday thinking. There are two basic needs. The first is an ample supply of concrete models that bridge the gap between theory and practice. These models should come in a variety of forms: video tapes, curriculum materials, handbooks, etc. Second, most teachers need opportunities to work on their own philosophical thinking skills and insights. These two needs are best met in conjunction with each other. It is important for the reader to review particular philosophy-based strategies in detail.

The most extensive program available is *Philosophy for Children,* developed by Matthew Lipman in association with the *Institute for the Advancement of Philosophy for Children.* It is based on the notion that philosophy ought to be brought into schools as a separate subject, and philosophical reflection and ideas used directly as an occasion for teaching thinking skills. The program introduces philosophy in the form of children's novels. Extensive teachers' handbooks are provided and a thorough inservice required to ensure that teachers develop the necessary skills and insights to encourage classroom discussion of root ideas in such a way that students achieve philosophical insights and reasoning skills. In a year-long experiment conducted by the *Educational Testing Service* significant improvements were recorded in reading, mathematics, and reasoning. *Philosophy for Children* achieves transfer of reasoning skills into the standard curriculum but is not designed to directly infuse philosophical reflection into it.

In contrast, the *Center for Critical Thinking and Moral Critique* at Sonoma State University in California is developing a philosophy-based approach focused on directly infusing philosophical thinking across the curriculum. Handbooks of lesson plans K–12 have been remodelled by the Center staff to demonstrate that, with redesign, philosophically-based critical thinking skills and processes can be integrated into the lessons presently in use, if teachers learn to remodel the lessons they presently use with critical thinking in mind.

We provide a 'before' and 'after', (the lesson plan before remodelling and after remodelling); a critique of the unremodelled lesson plan to clarify how the remodel was achieved; a list of specific objectives; and the particular strategies used in the remodel. Here is one such example:

Two Ways to Win

(Language Arts — 2ⁿᵈ Grade)

Objectives of the remodelled lesson

The student will:

- use analytic terms such as assume, infer, and imply to analyze and assess story characters' reasoning
- make inferences from story details
- clarify 'good sport' by contrasting it with its opposite, 'bad sport' and exploring its implications

Original Lesson Plan

Abstract

Students read a story about a brother and sister named Cleo and Toby. Cleo and Toby are new in town and worried about making new friends. They ice skate at the park every day after school, believing that winning an upcoming race can help them make new friends (and that they won't make friends if they

don't win). Neither of them wins; Cleo, because she falls, Toby, because he forfeits his chance to win by stopping to help a boy who falls. Some children come over after the race to compliment Toby on his good sportsmanship and Cleo on her skating.

Most of the questions about the story probe the factual components. Some require students to infer. Questions ask what 'good sport' means and if Cleo's belief about meeting people is correct.

from *Mustard Seed Magic*,
Theodore L. Harris et al. Economy Company. © 1972. pp. 42–46

Critique

The original lesson has several good questions which require students to make inferences, for example, "Have Toby and Cleo lived on the block all their lives?" The text also asks students if they know who won the race. Since they do not, this question encourages students to suspend judgment. Although 'good sportsmanship' is a good concept for students to discuss and clarify, the text fails to have students practice techniques for clarifying it in sufficient depth. Instead, students merely list the characteristics of a good sport (a central idea in the story) with no discussion of what it means to be a bad sport or sufficient assessment of specific examples. The use of opposite cases to clarify concepts helps students develop fuller and more accurate concepts. With such practice a student can begin to recognize borderline cases as well — where someone was a good sport in some respects, bad in others, or not clearly either. This puts students in a position to develop criteria for judging behavior.

Strategies used to remodel
S–10 clarifying the meanings of words or phrases
S–28 supplying evidence for a conclusion
S–23 using critical vocabulary
S–25 examining assumptions

Remodelled Lesson Plan

Where the original lesson asks, "What does 'a good sport' mean?" we suggest an extension. **S–10** The teacher should make two lists on the board of the students' responses to the question "How do good sports and bad sports behave?" Students could go back over the story and apply the ideas on the list to the characters in the story, giving reasons to support any claims

they make regarding the characters' sportsmanship. *S–28* In some cases there might not be enough information to determine whether a particular character is a good or bad sport. Or they might find a character who is borderline, having some characteristics of both good and bad sports. Again, students should cite evidence from the story to support their claims.

The students could also change details of the story to make further points about the nature of good and bad sportsmanship. (If the girl had pushed Cleo down to win the race, that would have been very bad sportsmanship.) To further probe the concept of good sportsmanship, ask questions like the following: How did Toby impress the other children? Why did they think he did a good thing? If you had seen the race, what would you have thought of Toby? Why do we value the kind of behavior we call 'good sportsmanship'? Why don't we like bad sportsmanship? Why are people ever bad sports? *S–10*

There are a number of places in the lesson where the teacher could introduce, or give students further practice using critical thinking vocabulary. Here are a few examples "What can you *infer* from the story title and picture? What parts of the story *imply* that Toby and Cleo will have some competition in the race? What do Toby and Cleo *assume* about meeting new people and making new friends? Is this a good or a bad *assumption?* Why? Why do you think they made this assumption? Have you ever made similar assumptions? Why? *S–25* What can you infer that Cleo felt at the end of the story? How can you tell?" *S–23*

Only after close examination of specific classroom materials and teaching strategies, can teachers begin to understand how to translate philosophically-based approaches into classroom practice. This requires long-term staff development with ample provision for peer collaboration and demonstration teaching. Only then can one reasonably assess the value and power of a philosophical approach.

✦ Summary and Conclusion

A strong case can be made for a philosophically-based approach to thinking and teaching for thinking. Such an approach differs fundamentally from most cognitive psychology-based approaches. Philosophy-based approaches

reflect the historic emphases of philosophy as a field, as a mode of thinking, and as a framework for thinking. The field is historically committed to specific intellectual and moral ideals, and presupposes people's capacity to live reflective lives and achieve an understanding of and command over the most basic ideas that rule their lives. To achieve this command, people must critically examine the ideas on which they act and replace those ideas when, in their own best judgment, they can no longer rationally assent to them. Such an ideal of freedom of thought and action requires that individuals have a range of intellectual standards by which they can assess thought. These standards, implicit in the critical-analytic terms that exist in every natural language, must be applied in a certain spirit — a spirit of intellectual humility, empathy, and fairmindedness. To develop insight into proper intellectual judgment, one must engage in and become comfortable with dialogical and dialectical thinking. Such thinking is naturally stimulated when one asks basic questions, inquires into root ideas, and invites and honestly considers a variety of responses. It is further stimulated when one self-reflects. The reflective mind naturally moves back and forth between a variety of considerations and sources. The reflective mind eventually learns how to inwardly generate alternative points of view and lines of reasoning, even when others are not present to express them.

A teacher who teaches philosophically brings these ideals and practices into the classroom whatever the subject matter, for all subject matter is grounded in ideas which must be understood and related to ideas pre-existing in the students' minds. The philosophically-oriented teacher wants all content to be critically and analytically processed by all students in such a way that they can integrate it into their own thinking, rejecting, accepting, or qualifying it in keeping with their honest assessment. All content provides grist for the philosophical mill, an opportunity for students to think further, to build upon their previous thought. The philosophically oriented teacher is careful not to require the students to take in more than they can intellectually digest. The philosophically oriented teacher is keenly sensitive to the ease with which minds become passive and submissive. The philosophically oriented teacher is more concerned with the global state of students' minds (Are they developing their own thinking, points of view, intellectual standards and traits, etc.) than with the state of the students' minds within a narrowly defined subject competence. Hence it is much more important to such a teacher that students learn how to think historically (how to look at their own lives and experience and the lives and experiences of others from a historical vantage point) than that they learn how to recite information from a history text. History books are read as aids to historical thought, not as ends-in-themselves.

The philosophically oriented teacher continually looks for deeply rooted understanding and encourages the impulse to look more deeply into things. Hence, the philosophically oriented teacher is much more impressed with how little we as humans know than with how much information we have collected. They are much more apt to encourage students to believe that they, as

a result of their own thinking, may design better answers to life's problems than have yet been devised, than they are to encourage students to submissively accept established answers.

What stands in the way of successful teaching for thinking in most classrooms is not as much the absence of technical, empirical information about mental skills and processes, as a lack of experience of and commitment to teaching philosophically. As students, most teachers, after all, were not themselves routinely encouraged to think for themselves. They were not exposed to teachers who stimulated them to inquire into the roots of their own ideas or to engage in extended dialogical and dialectical exchange. They have had little experience in Socratic questioning, in taking an idea to its roots, in pursuing its ramifications across domains and subject areas, in relating it critically to their own experience, or in honestly assessing it from other perspectives.

To appreciate the power and usefulness of a philosophy-based approach, one must understand not only the general case that can be made for it but also how it translates into specific classroom practices. One will achieve this understanding only if one learns how to step outside the framework of assumptions of cognitive psychology and consider thinking, thinking about thinking, and teaching for thinking from a different and fresh perspective. If we look at thinking only from the perspective of cognitive psychology, we will likely fall into the trap which Gerald W. Bracey (1987) recently characterized as,

> ... the long and unhappy tendency of American psychology to break learning into discrete pieces and then treat the pieces in isolation. From James Mill's "mental mechanics", through Edward Titchener's structuralism, to behavioral objectives and some "componential analysis" in current psychology, U.S. educators have acted as if the whole were never more than the sum of its parts, as if a house were no more than the nails and lumber and glass that went into it, as if education were no more than the average number of discrete objectives mastered. We readily see that this is ridiculous in the case of a house, but we seem less able to recognize its absurdity in the case of education. (p. 684)

In thinking, if nowhere else, the whole is greater than the sum of its parts, and cannot be understood merely by examining its psychological leaves, branches, or trunk. We must also dig up its philosophical roots and study its seed ideas as ideas: the "stuff" that determines the very nature of thought itself.

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