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Thinking



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Additional credits: Museum of the City of New York, p. 7; Library of Congress, pp. 16, 89, 102; Black Star (Ivan Massar) pp. 42, 104.

THINKING IN STORIES

By Gareth Matthews

Morris the Moose

B. Wiseman

Scholastic Book Services, 1973.

Morris meets a cow. "You're a funny-looking moose," he says. "I'm a cow," the cow protests; "I'm no moose."

Morris persists. "You have four legs and a tail and things on your head," he points out. "You're a moose," he concludes.

"But I say MOO," the cow objects.

Morris is unimpressed. "I can say MOO, too," he boasts.

Still the cow is not stumped. "I give milk to people," she says; "moose don't do that."

Morris remains unimpressed. "So," he says, "you're a moose who gives milk to people."

The cow makes one last point. "My mother is a cow," she says.

Morris is unfazed. "She must be a moose," he rejoins coolly, "because you're a moose."

Next Morris and the cow meet a deer, who thinks they are all deer. You can predict the dialogue that results. Finally Morris, the cow and the deer walk over to a horse, who greets them with "Hello, you horses."

The plot of this little story could hardly be simpler; yet the questions it raises are very profound. Suppose someone called a moose a cow? or a horse a moose? What would be wrong with that? Would anything be wrong with that?

Conceived in one way the problem raised is the problem of the distinction

between essential and accidental properties. An essential property of Morris is a property Morris can't lose without ceasing to exist, and also, perhaps, one that Morris couldn't fail to have had. By contrast, an accidental property is one he can lose without ceasing to exist and one he might never have had.

Is "having things on your head" essential to being a moose and so, for Morris, essential to existing? If so, then certainly the horse is not a moose. Is lacking antlers only accidental to being a horse? If so, then perhaps Morris is an antlered horse.

The problem of essential and accidental properties is a problem of metaphysics. Some of the issues it raises can also be conceived as problems in taxonomy — how to classify things.

To discuss biological taxonomy one needs to know something about evolution and something about variety in the biological world, including, among other things, what will mate with what! One can, however, discuss principles of taxonomy and many of the associated philosophical issues with nonbiological examples, too.

Over dinner one evening I put this question to my family:

What questions can you think of that are like these, two:

Is a bicycle a tricycle without one of the wheels?

Is a snake a lizard without legs?

Here are some of the responses I got:

Is a bicycle a motorbike without a motor?

Is a mouse a bat without wings?

Is a chair a rocker without runners?

Is a skirt a dress without a top?

Gareth Matthews teaches philosophy at the University of Massachusetts, Amherst.

Whimsical questions of this sort can serve to introduce a thoughtful discussion of the practical and philosophical problems of taxonomy. So can a delightful thought experiment like *Morris the Moose*. •



John Perry begins a recent article with this story:

I once followed a trail of sugar on a supermarket floor, pushing my cart down the aisle on one side of a tall counter and back the aisle on the other, seeking the shopper with the torn sack to tell him he was making a mess. With each trip around the counter, the trail became thicker. But I seemed unable to catch up. Finally it dawned on me. I was the shopper I was trying to catch.'

Perry uses this story to raise interesting questions about the logic of

belief. What exactly is the belief I come to have when (supposing the story above is about me) I come to believe that I am the one who is making the mess? It is not the belief that the only philosopher in the supermarket that day is the one who is making a mess, since I could have the first belief and not realize that I am the only philosopher in the supermarket. Nor is it the belief that Gary Matthews is the one who's making the mess, for I might realize that I am the one who is making the mess and not know (perhaps because I am suffering from amnesia) that I am Gary Matthews.

Perry could also have used this story to introduce another philosophical puzzle. How can it be that, as in the story, I am "seeking the shopper with the torn sack to tell him he was making a mess"? If that were right, I would be seeking myself to tell myself that I am making a mess, since I am the shopper with the torn sack. But I am not seeking myself and I have no wish to tell myself that I am making a mess.

Perry's story may remind us of Winnie-the-Pooh and his attempt to catch a Woozle. In that story Piglet comes upon Pooh, who is walking around in a circle. There ensues this exchange:

"Hallo!" said Piglet, "what are *you* doing?"

"Hunting," said Pooh.

"Hunting what?"

"Tracking something," said Winnie-the-Pooh very mysteriously.

"Tracking what?" said Piglet, coming closer.

"That's just what I ask myself. I ask myself, What?"

"What do you think you'll answer?"

"I shall have to wait until I catch up with it," said Winnie-the-Pooh..."²

Pooh's idea that he will have to wait to see what he finds before he will know what he is tracking is attractively plausible. Suppose he discovers that it is a new and unheard-of creature called a "Woozle" that is making those tracks. Then it is a Woozle he is tracking. Of course, as things actually turn out, it is Pooh

himself who is making those tracks (at least the first ones; when Piglet joins him Piglet naturally adds tracks of his own). But how can it be that Pooh has to wait until he "catches up with it" to say what it is he is tracking? He never *catches up with* himself.

Is Pooh, in fact, tracking himself? Surely even Pooh realizes that it is stupidly futile to track oneself. Is he then tracking the creature that made those tracks? But he *is* the creature that made those tracks.

"I have been Foolish and Deluded," says Pooh at the moment of enlightenment; "and I am a Bear of No Brain at All." Maybe so. But understanding Pooh's foolishness, and being clear about what enlightenment in this case could consist in, taxes the wisdom of even the wisest philosopher.

Footnotes

1. "The Problem of the Essential Indexical," *Nous* 13 (1979), p.3
2. A.A. Milne, *Winnie-the-Pooh*, London: Methuen, 1926, p. 34.



The selections that follow were taken from a book by Floyd Dell, an American novelist, playwright, and writer on a wide variety of subjects. Starting out as a reporter early in this century, he became editor of the Literary Review about the time of World War I. At the time these selections were written, Dell was on the staff of the Liberator. His first novel was the autobiographical Moon-Calf. His later works include a number of articles on child-training.

The Child

Education, as popularly conceived, includes as its chief ingredients a Child, a Building, Text-Books, and a Teacher. Obviously, one of them must be to blame for its going wrong. Let us see if it is the Child. We will put him on the witness stand:

Q. Who are you?

A. I am a foreigner in a strange land.

Q. What!

A. Please, sir, that's what everybody says. Sometimes they call me a little angel; the poet Wordsworth says that I come trailing clouds of glory from Heaven which is my home. On the other hand, I am often called a little devil; and when you see the sort of things I do in the comic supplements, you will perhaps be inclined to accept that description. I really don't know which is right, but both opinions seem to agree that I am an immigrant.

Q. Speak up so that the jury can hear. Have you any friends in this country?

A. No, sir — not exactly. But there are two people, a woman and a man, natives of this land, who for some reason take an interest in me. It was they who taught me to speak the language. They also taught me many of the customs of the country, which at first I could not understand. For instance, my preoccupation with certain natural — (the rest of the sentence stricken from the record).

Q. You need not go into such matters. I fear you still have many things to learn about the customs of the country. One of them is not to allude to that side of life in public.

A. Yes, sir; so those two people tell me. I'm sure I don't see why. It seems to me a very interesting and important—

Q. That will do. Now as to those people who are looking after you: Are your relations with them agreeable?

A. Nominally, yes. But I must say that they have treated me in a very peculiar way, which has aroused in me a deep resentment. You see, at first they

treated me like a king — in fact, like a Kaiser. I had only to wave my hand and they came running to know what it was I wanted. I uttered certain magic syllables in my own language, and they prostrated themselves before me, offering me gifts. When they brought the wrong gifts, I doubled up my fists and twisted my face, and gave vent to loud cries — and they became still more abject, until at last I was placated.

Q. That is what is called paternal love. What then?

A. I naturally regarded them as my slaves. But presently they rebelled. One of them, of whom I had been particularly fond, commenced to make me drink milk from a bottle instead of from —

Q. Yes, yes, we understand. And you resented that?

A. I withdrew the light of my favour from her for a long time. I expressed my disappointment in her. I offered freely to pardon her delinquency if she would acknowledge her fault and resume her familiar duties. But perhaps I did not succeed in conveying my meaning clear-

—Floyd Dell, *Were You Ever a Child* (New York: Alfred A. Knopf, 1919). pp. 13-21, 137-156.

ly, for at this time I had no command of her language. At any rate, my efforts were useless. And her reprehensible conduct was only the first of a series of what seemed to me indignities and insults. I was no longer a king. I was compelled to obey my own slaves. In vain I made the old magic gestures, uttered the old talismanic commands — in vain even my doubling up of fists and twisting of face and loud outcries; the power was gone from these things. Yet not quite all the power — for my crying was at least a sort of punishment for them, and such I often inflicted upon them.

Q. You were a naughty child.

A. So they told me. But I only felt aggrieved at my new helplessness, and wished to recover somewhat of my old sense of power over them. But as I gradually acquired new powers I lost in part my feeling of helplessness. I also found that there were other beings like myself, and we conducted magic ceremonies together in which we transformed ourselves and our surroundings at will. These delightful enterprises were continually being interrupted by those other people, our parents, who insisted on our learning ever more and more of their own customs. They wished us to be interested in their activities, and they were pleased when we asked questions about things we did not understand. Yet there were some questions which they would not answer, or which they rebuked us for asking, or to which they returned replies that, after consultation among ourselves, we decided were fabulous. So we were compelled to form our own theories about these things. We asked, for instance —

Q. Please confine your answers to the questions. That is another matter not spoken of in public; though to be quite frank with you, public taste seems to be changing somewhat in this respect.

A. I am very glad to hear it. I would like to know —

Q. Not now, not now. — You say you have learned by this time many of the customs of the country?

A. Oh, yes, sir! I can dress myself, and wash my face (though perhaps not in a manner quite above criticism), count the change which the grocer gives me, tell the time by a clock, and say

“Yes, ma’am,” and “Thank you” — and I am beginning to be adept in the great national game of baseball.

Q. Have you decided what you would do if you were permitted to take part in our adult activities?

A. I would like to be a truck-driver.

Q. Why?

A. Because he can whip the big horses.

Q. Do you know anything about machinery?

A. No, sir; I knew a boy who had a steam-engine, but he moved away before I got a chance to see how it worked.

Q. You spoke of truck-driving just now. Do you know where the truck-driver is going with his load?

A. No, sir.

Q. Do you know where he came from?

A. No, sir.

Q. Do you know what a factory is?

A. Yes, sir; Jim’s father got three fingers cut off in a factory.

Q. Do you know where the sun rises and sets?

A. It rises in the East and sets in the West.

Q. How does it get from the West back to the East during the night?

A. It goes under the earth.

Q. How?

A. It digs a tunnel!

Q. What does it dig the tunnel with?

A. With its claws.

Q. Who was George Washington?

A. He was the Father of his country,



and he never told a lie.

Q. Would you like to be a soldier?

A. Yes.

Q. If we let you take part in the government of our country, what ticket would you vote?

A. The Republican ticket. My father is a Republican.

Q. What would you do if you had ten cents?

A. I’d go to see Charley Chaplin in the moving-picture show.

Q. Thank you. You can step down.

A. Yes, sir. Where is my ten cents?

And now, gentlemen, you have heard the witness. He has told the truth — and nothing but the truth — and he would have told the whole truth if I had not been vigilant in defence of your modesty. He is, as he says, a foreigner, incompletely naturalized. In certain directions his development has proceeded rapidly. He shows a patriotism and a sense of political principles which are quite as mature as most of ours. But in other directions there is much to be desired. He does not know what kind of world it is he lives in, nor has he any knowledge of how he could best take his place, with the most satisfaction to himself and his fellow-men, in that world — whether as farmer or engineer, poet or policeman, or in the humbler but none the less necessary capacities of dustman or dramatic critic.

It would be idle for us to pretend that we think it will be easy for him to learn all this. But without this knowledge he is going to be a nuisance — not without a certain charm (indeed, I know several individuals who have remained children all their lives, and they are the most delightful of companions for an idle hour), but still, by reason of incapacity and irresponsibility, an undesirable burden upon the community: unable to support himself, and simply not to be trusted in the responsible relations of marriage and parenthood. We simply can’t let him remain in his present state of ignorance.

And yet, how is he ever going to be taught? You have seen just about how far private enterprise is likely to help him. That man and woman of whom he told us have other things to do besides teach him. And if he is turned over to special private institutions, we have no

guarantee that they will not take advantage of his helplessness, keep him under their control and rob him of freedom of movement for a long term of years, set him to learning a mass of fabulous or irrelevant information, instil in him a fictitious sense of its value by a system of prizes and punishments, and finally turn him out into our world no better prepared to take his proper part in it than he was before; and thus, having wasted his own time, he would have to waste ours by compelling us to teach him all over again.

In fact, the difficulty of dealing with him appears so great that I am moved to make the statesmanlike proposal — never before, I believe, presented to the public — of passing a law which will prevent this kind of undesirable immigration altogether.

Shall we abolish the Child?

The only other reasonable alternative is for us to undertake this difficult and delicate business of education ourselves — assume as a public responsibility the provision of a full opportunity for this helpless, wistful, stubborn little barbarian to find out about the world and about himself. Well, shall we do that?

Let us not allow any false sentimentality to affect our decision. . . .

The vote seems to be in favor of giving him his chance. Very well!

Curiosity

Let us, my friends, pass over this unfortunate incident, and get on to the next thing as quickly as possible. The next thing on our program is Truth. The one who best understands Truth is undoubtedly the Philosopher. — Here he is, and we shall commence without delay. Will some one volunteer to conduct the examination? Thank you, madam. Go right ahead.

The Lady: We wish to ask you a few questions.

The Philosopher: Certainly, madam. What about?

The Lady: About Truth.

The Philosopher: Dear, dear!

The Lady: Whom are you addressing?

The Philosopher: I beg your pardon! — It was only an exclamation of surprise. It has been so long since anybody has talked to me about Truth. How quaint and refreshing!

The Lady: Please do not be frivolous.

The Philosopher: I am sorry — but really, it is amusing. Tell me, to which school do you belong?

The Lady: To the Julia Richmond High School, if you must know — though I don't see what that has to do with Truth.

The Philosopher: Oh! You mean you are a school-teacher!

The Lady: Certainly. Doesn't that suit you?

The Philosopher: It delights me. I feared at first you might be a Hegelian, or even a Platonist. Now that I find you are a Pragmatist like myself —

The Lady: Pragmatist? Yes, I have heard of Pragmatism. William James — summer course in Philosophy. But why do you think I am a Pragmatist?

The Philosopher: A school-teacher *must* be a pragmatist, madam, or go mad. If you really believed the human brain to be an instrument capable of accurate thinking, your experiences with your pupils and your principal, not to speak of your boards of education, would furnish you a spectacle of human wickedness and folly too horrible to be endured. But you realize that the poor things were never intended to think.

The Lady: That's true; they're doing the best they can, aren't they? They just *can't* believe anything they don't want to believe!

The Philosopher: That is to say, man is not primarily a thinking animal — he is a creature of emotion and action.

The Lady: Especially action. They are always in such a hurry to get something done that they really can't stop to think about it! But I'm afraid all this is really beside the point. What we want to know is why the school fails so miserably in its attempt to teach children to think?

The Philosopher: Perhaps it is in too much of a hurry. But you are sure you really want children to learn to think?

The Lady: Of course we do!

The Philosopher: The greatest part of life, you know, can be lived without thought. We do not think about where we put our feet as we walk along an ac-

customed road. We leave that to habit. We do not think about how to eat, once we have learned to do it in a mannerly way. The accountant does not think about how to add a column of figures — he has his mind trained to the task. And there is little that cannot be done by the formation of proper habits, to the complete elimination of thought. The habits will even take care of the regulation of the emotions. For all practical purposes, don't you agree with me that thinking might be dispensed with?

The Lady: I hardly know whether to take you seriously or not —

The Philosopher: Can you deny what I say?

The Lady: But — but life isn't all habit. We must think — in order to make — decisions.

The Philosopher: It is not customary. We let our wishes fight it out, and the strongest has its way. But I once knew a man who did think in order to make his decisions. The result was that he always made them too late. And what was worse, the habit grew upon him. He got to thinking about everything he wanted to do, with the result that he couldn't do anything. I told him that he'd have to stop thinking — that it wasn't healthy. Finally he went to a doctor, and sure enough the doctor told him that it was a well known disease — a neurosis. Its distinguishing mark was that the patient always saw two courses open to him everywhere he turned — two alternatives, two different ways of doing something, two women between whom he must choose, two different theories of life, and so on to distraction. The reason for it, the doctor said, was that the patient's will, that is to say the functioning of his emotional wish-apparatus, had become deranged, and the burden of decision was being put upon a part of the mind incapable of bearing it — the logical faculty. He cured my friend's neurosis, and now he thinks no more about the practical affairs of life than you or I or anybody else. So you see thinking is abnormal — even dangerous. Why do you want to teach children to think?

The Lady: Well — it is rather taken for granted that the object of education is learning to think.

The Philosopher: But is that true? If it is, why do you teach your children the

multiplication table, or the rule that the square of the hypotenuse of a right triangle is equal to the sum of the squares of the other two sides — unless in order to save them the trouble of thinking? By the way, what is the capital of Tennessee, and when did Columbus discover America?

The Lady: Nashville, 1492. Why?

The Philosopher: You didn't have to stop to think, did you? Your memory has been well trained. But if you will forgive the comparison, so has my dog's been well trained; when I say, 'Towser, show the lady your tricks,' he goes through an elaborate performance that would gladden your heart, for he is an apt pupil; but I don't for a moment imagine that I have taught him to think.

The Lady: Then you don't want children taught the multiplication table?

The Philosopher: I? Most certainly I do. And so far as I am concerned, I would gladly see a great many other short cuts in mathematics taught, so as to save our weary human brains the trouble of thinking about such things. I am in fact one of the Honorary Vice-Presidents of the Society for the Elimination of Useless Thinking.

The Lady: I am afraid you are indulging in a jest.

The Philosopher: I am afraid I am. But if you knew Philosophers better you would realize that it is a habit of ours to jest about serious matters. It is one of our short-cuts to wisdom. Read your Plato and William James again. Delightful humorists, both of them, I assure you. I fear you went to them too soberly, and in too much of a hurry.

The Lady: Doubtless your jokes have a historic sanctity, since you say so, but I do not feel that they have advanced our inquiry very much.

The Philosopher: I abhor myself and repent in dust and ashes. What do you want to know?

The Lady: I want to know what is the use of thinking?

The Philosopher: Ah, my jest was not in vain, if it provoked you to that. I should call that question the evidence of a real thought.

The Lady: Well, what is the answer?

The Philosopher: Oh, please don't stop, now that you have made such a good start! Think again, and answer your own question.



The Lady: Hm...

The Philosopher: Yes?

The Lady: I was thinking of Newton and the apple. If it hadn't been for Newton's ability to think, he would never have formulated the law of gravitation.

The Philosopher: And what a pity that would have been — wouldn't it?

The Lady: You mean that it makes very little practical difference to us?

The Philosopher: It would if the town were being bombarded. The Newtonian calculations are considered useful by the artillery schools. But it is true that it was Newton and not an artillery officer who made them.

The Lady: You mean that the artillery captain would have been too intent on practical matters?

The Philosopher: And in too much of a hurry. Then there's the steam-engine. Useful invention — the very soul of hurry. Who invented it — some anxious postilion who thought horses were too slow? Or somebody whose mind was so empty of practical concerns that it could be intrigued by a tea-kettle? And by the way, it was Stephenson, wasn't it, who applied the steam-principle to locomotion? I've a very poor memory, but I think Watt's engine was just a toy. No practical use whatever. Other people found out the practical uses for it. Arkwright. Fulton, Hoe, et cetera.

The Lady: I see. The results of thinking may be put to use afterward, but the motive for thinking is not the desire to produce such results. I wonder if that is true?

The Philosopher: What is the common reproach against philosophers and scientists?

The Lady: That they are impractical. But inventors —

The Philosopher: Did you ever know an inventor?

The Lady: Yes....

The Philosopher: Was he rich?

The Lady: He starved to death.

The Philosopher: Why?

The Lady: Because every one said that his invention was very wonderful, but not of the slightest use to anybody... Yes, it's true.

The Philosopher: That the results of thinking do not provide the motive for thinking?

The Lady: Yes.

The Philosopher: Then what is the motive for thinking?

The Lady: Just — curiosity, I suppose!

The Philosopher: Disinterested curiosity?

The Lady: Yes.

The Philosopher: Then in the interests of scientific truth we should cultivate disinterested curiosity?

The Lady: Doubtless.

The Philosopher: How would you go about doing so?

The Lady: I don't know.

The Philosopher: By hurriedly thrusting upon the minds of the children in your charge so great a multitude of interests as to leave them no time to wonder about anything?

The Lady: That would hardly seem to be the way to do it. But —

The Philosopher: When Newton looked at his famous apple, was there anyone there who said, "Now, Newton, look at this apple. Look at this apple, I say! Consider the apple. First, it is round. Second, it is red. Third, it is sweet. This is the Truth about apples. Now let me see if you have grasped what I have told you. What are the three leading facts about apples? What! Don't you remember? Shame on you! I fear I will have to report you to the mayor!" — did anything like that happen?

The Lady: Newton was not a child.

The Philosopher: You should have talked to Newton's family about him. That is just what they said he was! I will admit that if you left children free to wonder about things instead of forcing the traditional aspects of those things upon their attention, they might not all become great scientists. But are you a

great archaeologist?

The Lady: No!

The Philosopher: Did you ever go on a personally conducted tour of the ruins of Rome, and have the things you were to see and think pointed to you by a guide?

The Lady: Yes, and I hated it!

The Philosopher: You are not a great archaeologist and you never expect to be one, and yet you thought you could get more out of those ruins yourself than with the assistance of that pesky guide. You preferred to be free — to see or not to see, to wonder and ponder and look again or pass by. And don't you think the children in your charge might enjoy their trip a little more if they didn't have to listen to the mechanically unctuous clatter of a guide?

The Lady: If one could only be sure they wouldn't just waste their time!

The Philosopher: Madam, are you quite sure that you, as a teacher, are not wasting *your* time?

The Lady: You make me wonder whether that may not be possible. But sheer idleness —

The Philosopher: Was Newton busy when he lay down under that tree? Did he have an appointment with the apple? Did he say he would give it ten minutes, and come again next day if it seemed worth while? What is disinterested curiosity, in plain English?

The Lady: Idle curiosity — I fear.

The Philosopher: I fear you are right. Then you would say that the way to approach Truth, in school and out, is to cultivate idle curiosity?

The Lady: I did not intend to say anything of the kind. But you compel me to say it.

The Philosopher: I compel you? Deny it if you wish!

The Lady: I thought you were going to answer my questions, and you have been making me answer yours!

The Philosopher: That is also an ancient habit of our profession. But since you have now arrived, of your own free will, at an inescapable if uncomfortable conclusion, you can now have no further need for my services, and I bid you all good day!

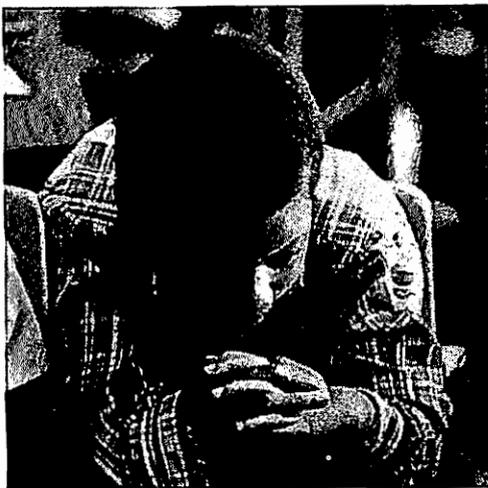
The Right to be Wrong

One moment! — I take it, my friends, we are agreed in demanding of the Philosopher that he condescend to some concrete and practical suggestions in regard to education. — Briefly, please!

The Philosopher: "You must draw your own conclusions. Traditional education is based on the assumption that knowledge is a mass of information which can be given to the child in little dabs at regular intervals. We know, however, that the education based on this assumption is a failure. It kills rather than stimulates curiosity; and without curiosity, information is useless. We are thus forced to realize that knowledge does not reside outside the child, but in the contact of the child with the world through the medium of curiosity. And thus the whole emphasis of education is changed. We no longer seek to educate the child — we only attempt to give him the opportunity to educate himself. He alone has the formula of his own specific needs; none of us are wise enough to arrange for him the mysterious series of beautiful and poignant contacts with reality by which alone he can 'learn.' This means that he must choose his own lessons. And if you think that, left to choose, he will prefer no lessons at all, you are quite mistaken. Let me remind you that children are notoriously curious about everything— everything except, as you will very justly point out, the things peo-

ple want them to know. It then remains for us to refrain from forcing any kind of knowledge upon them, and they will be curious about everything. You may imagine that they will prefer only the less complex kinds of knowledge; but do you regard children's games as simple? They are in fact exceedingly complex. And they are all the more interesting because they are complex. We ourselves with our adult minds, penetrate cheerfully into the complexities of baseball, or embroidery, or the stock-market, following the lead of some natural curiosity; and if our minds less often penetrate into the complexities of music, or science, it is because these things have associations which bring them within the realm of the dutiful. Evolutionary biology is far more interesting than stamp-collecting; but it is, unfortunately, made to seem not so delightfully useless, and hence it is shunned by adolescent boys and girls. But postage-stamp collecting can be made as much a bore as biology; it needs only to be put into the schools as a formal course.

"Consider for a moment the boy stamp-collector. His interest in his collection is in the nature of a passion. Does it astonish you that passionateness should be the fruit of idle curiosity? Then you need to face the facts of human psychology. The boy's passion for his collection of stamps is akin to the passion of the scientist and the poet. Do you desire of children that they should have a similar passion for arithmetic, for geography, for history? Then you must leave them free to find out the interestingness of these things. There is no way to passionate interest save through the gate of curiosity; and curiosity is born of idleness. But doubtless you have a quite wrong notion of what idleness means. Idleness is not doing nothing. Idleness is *being free to do anything*. To be forced to do nothing is not idleness, it is the worst kind of imprisonment. Being made to stand in the corner with one's face to the wall is not idleness — it is punishment. But getting up on Saturday morning with a wonderful day ahead in which one may do what one likes — that is idleness. And it leads straight into tremendous expenditures of energy. There is a saying, 'The devil finds some mischief still for idle hands to do.' Yes, but why should the devil have no competi-



tion? And that, as I understand it, is the function of education — to provide for idle and happy children fascinating contacts with reality — through games, tools, books, scientific instruments, gardens, and older persons with passionate interests in science and art and handicraft.

“Such a place would in a few respects resemble the schools we know; but the spirit would be utterly different from the spirit of traditional education. The apparatus for arousing the child’s curiosity would be infinitely greater than the meagre appliances of our public schools; but however great, the child would be the centre of it all — not as the object of a process, but as the possessor of the emotions by force of which all these outward things become Education.

“But, you may ask, what has all this to do with truth? Simply this. We have been forcing children to memorize alleged facts. A fact so memorized cannot be distinguished from a falsehood similarly memorized. And so we may very well say that we have failed to bring truth into education. For truth is reality brought into vital contact with the mind. It makes no difference whether we teach children that the earth is round or flat, if it means nothing to them either way. For truth does not reside in something outside the child’s mind; reality becomes truth only when it is made a part of his living.

“But, you will protest — and you will protest the more loudly the more you know of children — that their processes of thought are illogical, fantastic and wayward. And you will ask, Do I mean that we must respect the child’s error in order to cultivate in him a love of truth? Yes, I do mean just that! Do I mean that we must respect the child’s belief that the earth is flat, you ask? More than that, we must respect a thousand obscure and pervasive childish notions, such as the notion that a hair from a horse’s tail will turn into a pollywog if left in the rainbarrel, or the notion that the way to find a lost ball is to spit on the back of the hand, repeat an incantation couched in such words as ‘Spit, Spit, tell me where the ball is!’ and then strike it with the palm of the other hand. You can doubtless supply a thousand instances of the kind of childhood thinking to which I refer. But for simplicity’s

sake, let us use the childish notion that the earth is flat as a convenient symbol for them all. and I say that if we do not respect the error, we shall not have any real success in convincing the child of the truth. We shall easily persuade him that the globe in the schoolroom is round — that the picture of the earth in the geography-book is round — but not that the familiar earth upon which he walks is anything but flat! At best, we shall teach him a secondary, literary, schoolroom conception to put beside his workaday one. And, in the long run, we shall place a scientific conception of things in general beside his primitive childish superstitions — but we shall scarcely displace them; and when it comes to a show-down in his adult life, we shall find him acting in accordance with childish superstitions rather than with scientific knowledge. Most of us, as adults, are full of such superstitions, and we act accordingly, and live feebly and fearfully; for we have never yielded to the childish magical conception of the world the respect that is due to it as a worthy opponent of scientific truth — we have assumed that we were persuaded of truth, while in reality truth has never yet met error in fair fight in our minds.

“If you wish to convince a friend of something, do you not first seek to find out what he really thinks about it, and make him weigh your truth and his error in the same balance? But in dealing with children, we fail to take account of their opinions at all. We say, ‘You must believe this because it is so.’ If they do believe it, they have only added one more superstition to their collection. Truths are *not* true because somebody says so; nor even because everybody says so; they are true only because they fit in better with all the rest of life than what we call errors — because they bear the test of living — because they work out. And this way of discovering truth is within the capacity of the youngest school-child. If you can get him to state candidly and without shame his doubtless erroneous ideas about the world, and give him leave to prove their correctness to you, you will have set in motion a process which is worthy to be called education; for it will constitute a genuine matching of theory with theory in his mind, a real training in inductive

logic, and what conclusions he reaches will be truly his. When he sees in a familiar sunset, as he will see with a newly fascinated eye, the edge of the earth swinging up past the sun — then astronomy will be real to him, and full of meaning — and not a collection of dull facts that must be remembered against examination-day.

“This means that we must treat children as our equals. Education must embody a democratic relationship between adults and children. Children must be granted freedom of opinion — and freedom of opinion means nothing except the freedom to believe a wrong opinion until you are persuaded of a right one. They, moreover, must be the judges of what constitutes persuasion. You have asked me for practical and concrete suggestions in regard to education. I will make this one before I go: when I find an astronomy class in the first grade engaged in earnest debate as to whether the earth is round or flat, I will know that our school system has begun to be concerned for the first time with the inculcation of a love of truth. For, like Milton, I can not praise a fugitive and cloistered virtue, unexercised and unbreathed, that never sallies out and sees her adversary, but slinks out of the race, where that immortal garland is to be run for, not without dust and heat. — I thank you for your attention!”



期星

報時國中

日

及早啓發孩童思想鍛鍊思考 志明國小首為學生開哲學課

大教學及研究主此項教育實驗

學，也都參與這項實驗，明志國小的有
關老師，更是深感興趣地協助這項實驗
楊國教授說，時下心力，處理事物，校
有許多青年，起初對校節節。
哲學有興趣，讀了哲
學書之後，不是認為會聽見學生們討論，
哲學不足學，就是滿當雙方意見不同時，
口哲學術語，思想却常見的情形是，一方

：「本
：報記
：黃國
：楊宗
：專訪
：要說
：些國
：開始
：哲學
：你，
：定不
：相信
：然而
：明志
：小五
：六年
：在學
：期初
：已排
：了每
：哲學
：這項
：小學
：的課
：種兒
：育的
：大國
：秀博
：台主
：學研
：所學
：黃惠
：專幾
：熱心
：同

這頓討論比不討論還
要壞，因為這樣會造
成不良的思想習慣。
這種現象，或許是
大部份青年學生，沒
有學到哲學的思想方
式以及故事方法，反
而為一些深奧的哲學
理論搞迷糊了。
楊國教授說，大部
份人都認為哲學是有
用之學，它能等啓發
思想，鍛鍊思考，既
然如此，為什麼不在
中小學就讓學生學哲
學，到了大學才學，
另有一部份人學，實
在不够普遍，而且也
太遲了。
有經驗的中學國文
老師大多會了解，學
生思想發展得最快的
時候，是國三和高一
的時候，必須加重學
生的寫作能力，因為
思想是要鍛鍊的，當
學生的思想能力快速
成長時，不加以鍛鍊
以後就很難了。
鍛鍊學生思考的方

楊國教授指出，美
國李普曼教授，早在
十年前，提出一套適
用於小學生的哲學教
育實驗，這項實驗是
以他所寫的一本兒童
哲學故事為教材，結
果，這種實驗深受歡
迎，迄今，全世界參
加此一計畫的小學有
數十所，有三百所以
上的大學哲學系、教
育學系、心理系的學
者，對這個計畫深感
興趣。
現在他將該本教材
翻譯成中文，定名為
「哲學教室」，並開
始在國內實驗，目前

法固然很多，但是離
不開鍛鍊他們好語文
發表能力。假如，十
不必修到了長成數年
後才學哲學。
換句話說
，就是不必等到大學

子，那個例子告訴小
朋友，假如一個小朋
友從一個袋子里，一
連取出幾顆綠色的糖
菓，他仍然不能確定
他提了一種民族的名
稱，袋子裏其他的糖
菓是什麼顏色。
下課之後，有一個
男生和老師談話，他
說：「所有××人，
」老師
：「老
師，

一、在一年級的教
室，老師問江力，四
個馬鈴薯加三個大白
菜，一共多少？江力
回答說七。老師告訴
江力，單位不同的東
西，不可以相加。
馬鈴薯與大白菜不可
以相加。江力回答說
：「我得的七個青
菜呀，為什麼不可以

採用譯本成績斐然
三則實驗報告的摘要

學童興趣盎然

熱烈討論客觀推理



Teaching Philosophy
To Children
In Taiwan

Peter Mau-hsiu Yang

Peter Mau-hsiu Yang teaches philosophy at Fu-Jen University, Taipei, Taiwan.

At ten-thirty in the morning of the first Tuesday in March of this year, 1979, Ms. Huang Hui-ya, Mr. Su Shih-hsiung and I walked into the fifth grade classroom of Hua-hsing Elementary School, a private school in Taipei, carrying several dozen copies of the Chinese translation of *Harry Stottlemeier's Discovery*. Thus began our ten-week experiment in teaching philosophy to elementary school children. That philosophy could enter an elementary school classroom in this manner, or should I say, that philosophy could enter an elementary school classroom at all, was a first for Taiwan and, I believe, for all of Asia. The three of us were nervous and excited.

In terms of student and teacher response, the results of our experiment so far available have encouraged us very much. But the responses of the society, the philosophical community and the government have been more mixed. Our pilot project was organized in September, 1978 without financial or administrative support. Ms. Huang, Mr. Su and I met once a week for four hours to study *Harry Stottlemeier's Discovery*, the Chinese translation, the teacher's manual and the rationale and practical application of the project. We also persuaded Fu Jen University and Hua-hsing Elementary and Middle Schools to support our experiment. By the beginning of 1979, we finally obtained the support of Professor Lo Kuang, President of Fu Jen University, in addition to that of the authorities of Hua-hsing Elementary and Middle Schools. A young entrepreneur, Mr. Lin Huang-nan, and a pre-school educator, Diana Wang, gave us financial support. Our experiment therefore was able to commence with the opening of school in the second semester.

The text for the experiment was the Chinese translation of *Harry Stottlemeier's Discovery*, which I had completed in the spring of 1976. Lin Hai-yin, a well-known woman author, was the first to look over the translation. After advising me on the language of the translation, she still expressed doubts that the book could be read and understood by elementary school children in Taiwan, not to mention their liking it or not. Therefore the translation was delayed somewhat in publication. By early 1977,

one of the two philosophical journals in Taiwan, *E-hu yueh-k'an* (Goose Lake Monthly) began serialization of the translation which was completed in September of that year. The response of the philosophical community in Taiwan was very cool and dubious while it was being published. This was, of course, a natural response, because the majority of professional philosophers in Taiwan continue to believe in the traditional Chinese definition of philosophy: "a means of understanding the great changes of ancient and modern times and of investigating the relationship of man to his universe." They see it as a discipline of the highest wisdom. Not only would children be unable to understand it, but even intelligent adults would have difficulty grasping it. Most educators and people concerned about education — for example, school administrators and parents of students — are devotees of science. They believe as a matter of principle that philosophy is out of date. On the other hand, the readership of *E-hu* consisted of many students in teacher-education colleges and universities, and teachers in elementary and middle schools. They were very interested in this "story" for and about children. This novel's goal was to develop the child's ability to think. Many readers wrote to the journal requesting help in using the story as a classroom text. For example, two teachers in Tai-tung Teacher Training College asked permission to use the story as experimental material in language teaching, although we have yet to receive the results of their experiment.

Educational thinking in Taiwan has been greatly influenced by John Dewey, but the whole educational system, administrative structure and course design and content are a part of the state corporatistic system. Under this kind of socio-political system, the individual is not viewed as the basic unit. Traditionally, in other words, the position of the individual is always preceded by the family and profit-making organizations. Therefore, putting into practice an educational approach which aims at developing the individual's potential has been very limited in Taiwan. However in recent years, because of rapid changes in the economic, cultural and social structure, the position of the individual

has been reconsidered. Traditional teaching materials, methods and educational ideas are already inadequate. Education in Taiwan requires reform in every facet. This fact is recognized by the society in general, as well as by people directly involved in education. The government continues to acknowledge this fact and is working hard to implement reform. For example, guidance classes have recently been added to the curriculum in elementary and middle schools. However, taken as a whole, this action has been rather slow. Most importantly, there has been a failure to recognize the basic problem, namely that education in Taiwan lacks a philosophical dimension. It is true that many teachers have noted this problem, and have carried out extensive study and practical reform. For example, Professor Chia Fu-ming of National Taiwan University has worked on creativity research, Professor Huang Wu-hsing of the Academia Sinica has developed a program of reform and experiment in math education, and Professor Arnold Sprenger of Fu Jen University has been at work on foreign language teaching. Professor Sprenger's reform and research has been the most extensive. His critique of Taiwan education is similar to Matthew Lipman's critique of American education: the education lacks a dimension of philosophical thinking. At present, Professor Sprenger and Professor Albert Chao of Cheng-chih University are both interested in philosophy for children. We hope that with their cooperation and support the "Center for Development of Philosophy for Children in Taiwan" can be established in the fall of 1979.

Our experiment is divided into three phases. The first phase was completed in May of 1979. The aim of the first phase was to test the response of students, the society, teachers and educational administrators to *Harry Stottlemeier's Discovery*. Therefore, in addition to the experiment at Hua-hsing Elementary School (25 students, average age 11 years, in the fifth grade) and Hua-hsing Middle School (40 students, average age 13½, in the seventh grade), I also used the text in my philosophy of education course (45 students, average age 21, in their junior year of college). In that course I used my Chinese translation of

the text as case material. I also welcomed my students to attend my experimental class and discussion after that class.

The administrations of Fu Jen University, Hua-hsing Elementary and Middle Schools supported our experiment from beginning to end, but the Ministry of Education interfered with our experiment, causing us to halt the experiment after only four weeks in the middle school and ten weeks in the elementary school. Their interference was not due to the text or teaching method, but to a bureaucratic procedural error. As a matter of fact, after much discussion with the persons who were in charge, they became very interested in our experiment, and they allowed us to proceed in the fall.

Because the experiment ended early, we were unable to get statistical results. But from observation of the class we know that the student response was very encouraging. In general, the students in the fifth grade, seventh grade and the university all enjoyed the material and teaching method. Of course in the beginning, most of the students weren't used to them, but they quickly adapted — the lower the grade, the quicker. But their liking the material and method was not enough: we also saw them growing, a growth which was rare with traditional methods and materials. The following examples show how the classes grew:

called Li Lan-chih murmur, "That's silly." I asked everyone to be quiet and asked him to explain his comment. He was shy, so I asked him to close his eyes and listen to me read the poem again and imagine it. He closed his eyes and listened to me read the poem again and imagine it. He closed his eyes for a while and said, "It's all pitch-black." I asked him to do it again. The answer was still "pitch-black," but this time he added, "You know why I said it was silly? Because you have to use your eyes to see. How can you see anything with your eyes closed?" I said, "Do you believe that all the descriptions your friends gave were true?" He replied, "I think they're playing a dumb game. It's silly." Another student said, "You mean we're lying?" Li said, "Yes, if you really want to know." The other answered back, "I don't know about the others, but I did see what I just said. How do you know I was lying anyway?" Li said, "Because I know you have to use your eyes to see. Also, when I closed my eyes, I didn't see anything. So I know you're not telling the truth." A third student broke in, "But you're not us. How do you know we're lying? All you're talking about is yourself."

(2) In the seventh grade class, after doing the experiment for two weeks, we had a chance to discuss the mind-body problem. Some students said we use the

during an exam I work very hard and I often get a headache. So I think we use the head to think.

Student B—You mean the brain.

Student C—I think we use the mind to think because when I can't decide something, I say 'I can't make up my mind.' And when I can't think of something, I say, 'I feel bad in my mind.' I don't say 'I feel bad in my brain.'

Student D—We are talking about thinking, not feeling.

We then proceeded to discuss feeling and thinking. After that, one student said, "Anyway, I think we use our brain to think. Because if a bullet hit my head and went into my brain, I could never think again." One little girl said, "That doesn't prove anything. If a bullet hit my heart, I couldn't think anymore, either. That doesn't prove I use my heart to think. That only proves when you're dying, you can't think any more."

(3) The problem about rules came up early in every class. The first day in the fifth grade class we did the exercise about turning "all" sentences around. The rule of this is that if "all" sentences are true and then turned around, they become false. One student came up with "All chicken eggs are things laid by a hen." He added, "That's true, isn't it? So turn it around: All the things laid by hens are chicken eggs. That's true too, so the rule doesn't work." My assistant said, "That's an exception." A couple of weeks later, we had another chance to discuss rules. One student said, "Rules should not have exceptions." Another said, "Rules always have exceptions. For example, two weeks ago when we did the exercise on "all" sentences, we had a rule and we had an exception." But the student who claimed that rules shouldn't have exceptions said, "We had another rule for that kind of sentence. (I had corrected my assistant after she said that, and had given another rule for that kind of sentence.) For example, traffic rules say you have to stop for a red light. Nobody can run a red light." A girl said, "How about a firetruck and an ambulance? They don't have to stop for a red light. They're the exception." The student replied, "Ha, Ha! I just talked to my father last night. He's a traffic cop. He said that's part of the rule. It's not an exception."

“...their liking the material and method was not enough: we also saw them growing, a growth which was rare with traditional methods and materials.”

(1) In the fifth grade classroom, after three weeks experience with this course, we were doing exercises about imagination. I wrote a short children's poem on the blackboard about umbrellas in the rain. I asked the students to read it out loud along with me and then asked them to close their eyes and just listen to me and imagine it. Then I asked them what they saw. Many students had some interesting descriptions of the scenes they saw. They kept coming up with their own descriptions. The classroom was very lively. Suddenly I heard a student

mind to think. Others said we use the head to think. Because 'mind' and 'heart' in Chinese are the same character, we had a lively debate about that for a while and decided it had to do with the mind, not the heart. One little girl said, "I think we ought to give reasons instead of just yelling at each other." I asked the class to be quiet so she could repeat what she just said. The discussion went as follows:

Student A—I think we use the head to think; I mean, we use the brain to think. Because, for example,

(4) (After Class). In the fifth grade one day during a break period, one student said to another, "The Chinese Communists aren't rational." The other said, "You're crazy. They're also people. And we know people are rational animals, so they are, too. They're rational, too." The first student said, "But the newspapers say that all the time." Another student who was listening to them said, "But you know what newspapers say is often wrong. Just look at the ads." The first replied, "But you say *often*, not always."

• • •

The second phase of the experiment will begin this fall. The aim of this is to try the material and method in a normal class of 45-50 or more students in elementary schools, with elementary school teachers who lack training in philosophy. Their only training will be that received from us. We want to know if it is possible to use the philosophy for children method in a bigger classroom, how much philosophical training the teachers need, and how we are going to meet this need. We know that Professor Lipman's experiments in the States were successful. But most of those classes had approximately 25 students. Would it be possible to have children master the dialogical and thinking skills involved in the philosophy for children program in a class of 50? Wouldn't the teacher face many discipline problems? This summer at the Poconos training camp, I brought up this problem with Professor Ann Margaret Sharp. She shook her head and smiled. "I don't know. Maybe there is a solution."

The Center for the Development of Philosophy for Children in Taiwan is also going to serialize the translation of *Lisa* in *E-hu Monthly* for subsequent use in the classroom. If this second phase can show that philosophy for children can work in larger classrooms, we will move to phase three, which is a teacher-training program. We will ask the government for assistance to expand the training program and try to make philosophy a regular part of the curriculum. We are not going to use "philosophy" as the name of the experimental course. We will use "thinking and value."

△ 女郎跳樓真相大白

情郎欲分手感情付東流

投立刻回答，只做出自己的話，他說：「十分驚訝的表情，這我的意思是，所有我位男生看見老師驚訝看見過的××人都很的表情，立刻修正一笑。」這個男生，已

構思課上討論課的例子裡所舉的，應用到日常生活裏。三是在六年級的一篇課文，小朋友們熱衷地討論一篇文章，突然文章討論的是男女的差別。有一位男生表示，男生永遠比女生好。

「你是說在課堂裡，或是在運動場上？」老師問他，他回答說：「男生在運動方面當然比女生強！」

「所有各種運動是嗎？」老師又問：「有個女生反駁說：『不對，有些運動我們女生比男生強。』」

「那裏，」另外一個男生說：「即使女生的運動，也有些男生比女生好。」

另外一個女生說：「有些女生，即使是男生的運動，她們比許多男生做得好。」

小朋友們開始討論時，言詞激烈，漸漸的，他們知道他們說的，他們知道他們說的

話時必須更小心些，更客觀些。這就是哲學實驗教學的目的

Gregory Bateson, well-known in anthropology, and associated in recent years with the Culture Learning Institute of the East-West Center in the University of Hawaii, has had a long time interest in problems of linguistics and communication. This brief "Metalogue" as he called it, was written in 1948. The book from which it was taken contains a number of other, similarly delightful dialogues. Readers with small children may discover, through this dialogue, how enjoyable it can be to script-read together. Such role-playing provides, at the same time, a fine model for joint parent-child reasonings.

Why Do Things Get in a Muddle?

Gregory Bateson

Daughter: Daddy, why do things get in a muddle?

Father: What do you mean? Things? Muddle?

D: Well, people spend a lot of time tidying things, but they never seem to spend time muddling them. Things just seem to get in a muddle by themselves. And then people have to tidy them up again.

F: But do your things get in a muddle if you don't touch them?

D: No — not if *nobody* touches them. But if you touch them — or if anybody touches them — they get in a muddle and it's a worse muddle if it isn't me.

F: Yes — that's why I try to keep you from touching the things on my desk. Because my things get in a worse muddle if they are touched by somebody who isn't *me*.

D: But do people *always* muddle other people's things? Why do they, Daddy?

F: Now, wait a minute. It's not so simple. First of all, what do you mean by a muddle?

D: I mean — so I can't find things, and so it *looks* all muddled up. The way it is when nothing is straight —

F: Well, but are you sure you mean the same thing by muddle that anybody else would mean?

D: But, Daddy, I'm sure I do — because I'm not a very tidy person and if *I* say things are in a muddle,

then I'm sure everybody else would agree with me.

F: All right — but do you think you mean the same thing by "tidy" that other people would? If your mummy makes your things tidy, do you know where to find them?

D: Hmm... *sometimes* — because, you see, I know where she puts things when she tidies up —

F: Yes, I try to keep her away from tidying my desk, too. I'm sure that she and I don't mean the same thing by "tidy."

D: Daddy, do you and I mean the same thing by "tidy"?

F: I doubt it, my dear — I doubt it.

D: But, Daddy, isn't that a funny thing — that everybody means the same when they say "muddled" but

- everybody means something different by "tidy." But "tidy" is the opposite of "muddled," isn't it?
- F: Now we begin to get into more difficult questions. Let's start again from the beginning. You said "*Why do things always get in a muddle?*" Now we have made a step or two — and let's change the question to "Why do things get in a state which Cathy calls 'not tidy'?" Do you see why I want to make that change?
- D: ...Yes, I think so — because if I have a special meaning for "tidy" then some of other people's "tidies" will look like muddles to me — even if we do agree about most of what we call muddles —
- F: That's right. Now — let's look at what *you* call tidy. When your paint box is put in a tidy place, where is it?
- D: Here on the end of this shelf.
- F: Okay — now if it were anywhere else?
- D: No, that would not be tidy.
- F: What about the other end of the shelf, here? Like this?
- D: No, that's not where it belongs, and anyhow it would have to be *straight*, not all crooked the way you put it.
- F: Oh — in the right place *and* straight.
- D: Yes.
- F: Well, that means that there are only very few places which are "tidy" for your paint box —
- D: Only *one* place —
- F: No — very *few* places, because if I move it a little bit, like this, it is still tidy.
- D: All right — but very, very few places.
- F: All right, very, very few places. Now what about the teddy bear and your doll, and the Wizard of Oz and your sweater, and your shoes? It's the same for all the things, isn't it, that each thing has only a very, very few places which are "tidy" for that thing?
- D: Yes, Daddy — but the Wizard of Oz could be anywhere on that shelf. And Daddy — do you know what? I hate, hate it when my books get all mixed up with your books and Mummy's books.
- F: Yes, I know. (Pause).
- D: Daddy, you didn't finish. Why do my things get the way I say isn't tidy?
- F: But I *have* finished — it's just because there are more ways which you call "untidy" than there are ways which you call "tidy."
- D: But that isn't a reason why —
- F: But, yes, it is. And it is the real and only and very important reason.
- D: Oh, Daddy! Stop it.
- F: No, I'm not fooling. That is the reason, *and all of science is hooked up with that reason*. Let's take another example. If I put some sand in the bottom of this cup and put some sugar on the top of it, and now stir it with a teaspoon, the sand and the sugar will get mixed up, won't they?
- D: Yes, but, Daddy, is it fair to shift over to talking about "mixed up" when we started with "muddled up"?
- F: Hmm... I wonder... but I think so — Yes — because let's say we can find somebody who thinks it is more tidy to have all the sand underneath all the sugar. And if you like *I'll* say I want it that way —
- D: Hmm....
- F: All right — take another example. Sometimes in the movies you will see a lot of letters of the alphabet all scattered over the screen, all higgledy-piggledy and some even upside down. And then something shakes the table so that the letters start to move, and then as the shaking goes on, the letters all come together to spell the title of the film.
- D: Yes, I've seen that — they spelled DONALD.
- F: It doesn't matter what they spelled. The point is that you saw something being shaken and stirred up and instead of getting more mixed up than before, the letters came together into an order, all right way up, and spelled a word — they made up something which a lot of people would agree is *sense*.
- D: Yes, Daddy, but you know...
- F: No, I don't know; what I am trying to say is that in the real world things never happen that way. It's only in the movies.
- D: But, Daddy...
- F: I tell you it's only in the movies that you can shake things and they seem to take on more order and sense than they had before...
- D: But, Daddy...
- F: Wait till I've finished this time... And they make it look like that in the movies by doing the whole thing backwards. They put the letters all in order to spell DONALD and then they start the camera and then they start shaking the table.
- D: Oh, Daddy — I knew that and I did so want to tell *you* that — and then when they run the film, they run it backwards so that it looks as though things had happened forwards. But really the shaking happened backwards. And they have to photograph it upside down... *Why* do they, Daddy?
- F: Oh God.
- D: Why do they have to fix the camera upside down, Daddy?
- F: No, I won't answer that question now because we're in the middle of the question about muddles.
- D: Oh — all right, but don't forget, Daddy, you've got to answer that question about the camera another day. Don't forget! You won't forget, will you, Daddy? Because I may not remember. Please, Daddy.
- F: Okay — but another day. Now, where were we? Yes, about things never happening backwards. And I was trying to tell you why it is a reason for things to happen in a certain way if we can show that that way has more ways of happening than some other way.
- D: Daddy — don't begin talking nonsense.
- F: I'm not talking nonsense. Let's start again. There's only one way of spelling DONALD — agreed?
- D: Yes.
- F: All right. And there are millions and millions and millions of ways of scattering six letters on the table. Agreed?
- D: Yes. I suppose so. Can some of these be upside down?
- F: Yes — just in the sort of higgledy-piggledy muddle they were in in the film. But there could be millions and millions and millions of muddles like that, couldn't there? And only one DONALD?
- D: All right — yes. But, Daddy, the same letters might spell OLD DAN.
- F: Never mind. The movie people don't want them to spell OLD DAN. They only want DONALD.

D: Why do they?
 F: Damn the movie people.
 D: But you mentioned them first.
 F: Yes— but that was to try to tell you why things happen that way in which there are most ways of their happening. And now it's your bedtime.
 D: But Daddy, you never did finish telling me why things happen that way — the way that has most ways.
 F: All right. But don't start any more hares running — one is quite enough. Anyhow, I am tired of DONALD, let's take another example. Let's take tossing pennies.
 D: Daddy? Are you still talking about the same question we started with? "Why do things get in a muddle"?
 F: Yes.
 D: Then, Daddy, is what you are trying to say true about pennies, and about DONALD, and about sugar and sand, and about my paint box, and about pennies?
 F: Yes — that's right.
 D: Oh — I was just wondering, that's all.
 F: Now, let's see if I can get it said this time. Let's go back to the sand and the sugar, and let's suppose that somebody says that having the sand at the bottom is "tidy" or "orderly."
 D: Daddy, does somebody have to *say* something like that before you can go on to talk about how things are mixed up when you stir them?
 F: Yes — that's just the point. They say what they hope will happen and then I tell them it won't happen because there are so *many* other things that might happen. And I know that it is more likely that one of the *many* things will happen and not one of the few.
 D: Daddy, you're just an old bookmaker, backing *all* the other horses against the *one* horse that I want to bet on.
 F: That's right, my dear. I get them to bet on what they call the "tidy" way — I know that there are infinitely many muddled ways — so things will always go toward muddle and mixedness.
 D: But why didn't you say that at the

beginning, Daddy? I could have understood *that* all right.

F: Yes, I suppose so. Anyhow, it's now bedtime.

D: Daddy, why do grownups have wars, instead of just fighting the way children do?

F: No — bedtime. Be off with you. We'll talk about wars another time.



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Thinking and Self-Teaching

Gilbert Ryle

The theme of thinking was one to which Ryle returned frequently in his later years, but his concern with the relationship between thinking and education is nowhere better shown than in the present essay. Ryle had demonstrated that interest in education in a number of previous articles, as well as in A Concept of Mind. But here he goes decisively beyond his earlier approaches to the problem.

"Thinking and Self-Teaching" contains a number of tantalizing and provocative theses, some of which are as challenging as they are challenging. Of the latter, the following may be cited as particularly deserving of further consideration:

Ryle argues that courses of instruction in thinking cannot be given, because all instruction must be instruction in some specific subject. "There are no residual problems of purely generic sorts." What is curious here is why Ryle, a philosopher so profoundly interested in the activity of philosophizing, should fail at this point to consider the possibility that philosophy might be a specific discipline which deals with "problems of purely generic sorts." While practice in doing philosophy may not involve certain specific thinking skills required for "arithmetic, French grammar, Hittite archaeology, verse, composition, etc.," yet does it not sharpen certain general reasoning capacities which those

studies do require? And if this is so, then what reason would there be for not offering philosophy in the schools as a separate course of instruction?

"The notion of thinking is the notion of thinking for oneself," Ryle contends. This is indeed a drastic step. But it was foreshadowed by Ryle's having suggested a little earlier that "the natural processes of digesting and perspiring" are not taught in the schools for quite different reasons than those which have caused us to exclude philosophy. For, once again, could it not be contended that thinking is as natural a process as perspiring or digesting? ("How would we go about stopping a child from thinking?" one of our colleagues recently inquired. "Well," he suggested after some reflection, "we could kill him...") And if thinking is a natural process, then surely not all thinking is of that estimable variety which we call "thinking for oneself."

Quibbles such as these aside, the Ryle essay exhibits impressively the intellectual search techniques which, with equal impressiveness, it analyses. No doubt Ryle would be the first to assert that his whole approach is "on appro" (on approval — tentative, conditional, experimental, subject to revision.) But then, so is thinking.

We are not often enough or deeply enough puzzled by the notions of *thinking, pondering, reflecting*, etc.; namely of what Rodin's *Le Penseur* looks as if he is absorbed in. I am not concerned with the dreary notion of *thinking = believing*, which anyhow has been sadly overworked, usually in the wrong harness.

What is Le Penseur doing, seemingly in his Cartesian insides? Or, to sound scientific, what are the mental processes like, which are going on in that Cartesian *camera obscura*? We are, since we have to be, absolutely familiar with the *thing*, that is, with the cogitative doing or the process of pondering itself, for it has been, at least off and on, since our infancy part of the pulse of our own existence. *Cogitamus ergo Sumus*. Yet we cannot, apparently, answer the simplest concrete questions about it. Why can't we? How could it, of all things, be hidden from us?

Notoriously some of our ponderings, but not all, terminate in the solutions of our problems; we had been fogged, but at last we came out into the clear. But if sometimes successful, why not always? If belatedly, why not promptly? If with difficulty, why not easily? Why indeed does it ever work? How possibly can it work? Notoriously, too, some people are better thinkers than others; and we ourselves may be better at thinking out the solutions of anagrams than at thinking out the solutions of chess-problems. Whence these disparities? What sort of an unevenly distributed craft or skill is this? Why did I acquire my own personal ration of it, and not yours instead? Why does not Mozart, indeed why cannot he, suddenly start thinking Immanuel Kant's thoughts, and vice versa? Why do not schools provide classes in thinking, as they do in mundane crafts like drawing, Latin, carpentry, and rifle-shooting? Ridiculous suggestion? Certainly, but then what makes it ridiculous to suggest that thinking is one teachable skill among others? Surely not anything like what would make it ridiculous to suggest that the natural processes of digesting and perspiring are extra skills that could and should be taught in schools or universities.

Let us pause a bit with this little riddle. Why would it be absurd for a school or university to offer a separate course of instruction in thinking? There are two reasons, one important but dull; the other important and interesting.

1) The housewife who has separate shelves, hooks, containers, and bags marked for flour, sugar, onions, mustard, etc., does not also have separate receptacles marked 'food,' 'edibles,' 'comestibles,' or 'victuals,' for the simple reason that she has already provided receptacles for all the species of these genera. Well, similarly, the school or college curriculum which promises courses in arithmetic, French grammar, Hittite archeology, verse composition, etc., is already promising instruction in *species* of thinking. A student who has been taught some arithmetic or some French grammar has already learned in some measure to think out arithmetical problems or problems in composing or construing French prose. All learning is learning to tackle problems of this, that, or the other specific varieties. There are

no residual problems of purely generic sorts.

2) If the school or college promised to teach Originality, Invention, Wit, Pertinence, Initiative, Enterprise, Spontaneity, Talent, and Genius, we should feel sceptical. The lessons, exercises, tests, competitions, etc., might indeed and should equip and encourage the students to attempt moves of their own, to compose sonnets or plays of their own, to design experiments of their own, and so on. But these adventures, diminutive, modest, or striking, must be spontaneous, else they will not be essays, inventions or compositions of the student's own. For it to be *his* failure or *his* success, *his* good shot or *his* poor shot, it has *not* to be something contributed by the teacher. If it is the student's own sonnet, then it is not the teacher's sonnet, for all that the student would never have composed it without the teacher's suggestions, criticisms, drills, etc. Now the notion of thinking *is* the notion of thinking for oneself, of making one's own try, however perfunctory and diffident, at some problem, task, or difficulty. His instructors will have equipped and perhaps encouraged him to make his shot; but the shot is his and not his instructors'. My initiatives, small or great, unsuccessful or successful, cannot, in logic *be* what my teachers or my textbook did for me.

To keep our restricted deck-space fairly clear for the present I am going to leave on one side such off-center things as the thinking of the man who is glumly brooding over an insult; the thinking of a man who is, for pleasure, running over in his head a tune or a poem that he has long since got by heart; and the thinking of the man who is just daydreaming. We shall be concentrating on the man who is trying to think something out, whose thinking, unlike that of those others, can be successful or unsuccessful, bright or dull, industrious or idle, expert or amateurish, laborious or easy.

I am going to approach my objective by a knight's move, one which I think may surprise you a bit. For I am going to begin by reminding you of some truisms about teaching and therefore, necessarily, also about learning. Why? Because, to put it infantilely, my hope is to define thinking indirectly in terms of

teaching. I am going to argue that *Le Penseur* is not, of course, engaged in privily teaching himself whatever it is that he wants to know — he cannot teach it because he does not know it — but that he is experimentally plying himself with might-be cues, clues, reminders, snubs, exercises, spurs, etc., of types that are sometimes or often employed unexperimentally by teachers who are teaching what they do know. But we have some ground to cover at first. Anyhow from the outset it seems plausible to say that *Le Penseur* could always have been saved from his present labours of pondering by getting someone else — the Angel Gabriel, say — to teach him the answer. So there is this connection between thinking and teaching. Thinking is trying to make up for a gap in one's education.

I am going to assume, what has been argued elsewhere, that, with a reservation or two, all teaching is teaching-*to* and all learning is learning-*to*. Even the memorizing of rhymes, dates, tunes, etc., qualifies as learning just in so far as it leads to more than mechanical echoing. The child has not begun to learn to spell who can only recite, parrot-like, the dictated spellings 'C-A-T' CAT, 'B-O-B' BOB. Only when he has begun to try to think up the right spellings or at least possible spellings for words to which he has not been alphabetically introduced, has he begun to learn to spell. To have learned to solve anagrams is to have learned to solve new anagrams, not to play back the solutions of anagrams already solved by the instructor. I am going to lean heavily later on these notions of teaching-*to* and being taught-*to*. But I warn you that here I am flying in the faces of most N.C.O.'s and of too many educationalists, who never doubt that teaching consists in dictating things for subsequent verbatim regurgitation. Naturally, though horrifyingly, some of them think well of the potential teaching-utility of subliminal gramophones. Tape recorders play back, but they do not learn. People who do learn do not just play back. Even to have learned something by heart is to have become able to do more than to parrot the piece. It is to be able to detect and correct erroneous recitations, to recite the piece and not some other piece when required to do so; to be able to deliver it

fast or slowly, or start it or stop it at required places and so on.

Partly for ulterior reasons, but partly to dispel your attachment, if it exists, to this superstition that learners are mere players-back, I now remind you of a few of the teaching-methods, devices, and dodges by which ordinarily good or very good teachers do actually teach things to us.

1. They tell us lots of things, of course, but with variations in vocabulary, context, emphasis, etc., sometimes *viva voce* and sometimes in writing; with or without new illustrations, expansions, elucidations, corollaries, etc. They do not repeat themselves like cuckoo-clocks, or not much — and for obviously good pedagogic reasons.

2. They test us, hardly at all for our ability to parrot their actual words or to ape their actual movements, but for our ability and readiness to exploit the lesson itself by applying it, re-phrasing it, accelerating it, drawing conclusions from it, marrying it with earlier lessons, etc., etc.; in short, by doing things on our own with it.

3. They teach us cricket-strokes, perspective-drawing and French pronunciation, not much by describing anything, but by *showing* us how the thing should and also how it should not be done, and then getting us to move or utter, and *not* to move or utter in similar ways.

4. They tease us, like Socrates, with questions, and then with further questions about our answers, and it is we who do the answering.

5. They make us practice and re-practice our five-finger exercises and our conversions of syllogisms, with variations in tempo, syllogism-topic, etc.

6. They lead us by the hand along a half-familiar track and leave us in the lurch to get ourselves over its final stretch.

7. They cite or exhibit blatantly erroneous or inadequate solutions, for us, in recoil, to improve on them and/or to pinpoint what was wrong in them; and they caricature our own sillier attempts in order to get us to ridicule them for ourselves.

8. They draw our attention to partly analogous, but easier problems, and

leave us to use these analogies as banisters.

9. They break up complex problems into simpler ingredients and leave us to solve these unalarming ingredient problems, and then to reunite their solutions.

10. When we have hit on the (or a) solution, they set us subsidiary or parallel problems in order to get us to consolidate and limber up our mastery of the original solution.

All of these and scores or hundreds of similar didactic moves, expedients, tactics, and dodges are intended by our teachers to get ourselves to do and to say things of our own (as well as very often to undo and unsay things); for example, not just to parrot the recited spellings of a few given words but to attempt the spellings of hitherto unattempted words on the lines of those dictated specimens, and to withdraw or improve our first attempts.

sometimes, though not always, for him too things will have sorted themselves out rather well after the weekend. Dividends often do arrive rather a long time after the investments are made. Thus the progress made or not made or not visibly made by *Le Penseur* resembles in several ways the progress made or not made or not visibly made by the teacher-pupil pair. Our question, "Why does thinking not always work, or not always quickly?" is in parallel with the same less puzzling questions about teaching.

None the less, whatever their other similarities, *Le Penseur* is not himself, so to speak, a Siamese teacher-pupil pair. For the teacher knows the things that he tries to teach to his pupil; *Le Penseur* is pondering just because he does not know what he wants to know. My thinking is not the instruction of pupil Gilbert by teacher Ryle. Gilbert Ryle, in his thinking, is trying to find out what no one, external or internal, is there to

“...the fact that a pupil has shown no sign of progress yesterday or today is quite compatible with his coming on fast next week or next term. Seeds often do germinate slowly.”

Naturally and notoriously the pupil often fails to respond, or to respond well. He is, perhaps, scared, bored, sulky, stupid, restless, unambitious, or hostile, and the teacher is, perhaps, tired, shy, in a hurry, cross, pessimistic, and off his preferred subject. Conversely, the fact that the pupil has shown no sign of progress yesterday or today is quite compatible with his coming on fast next week or next term. Seeds often do germinate slowly. Muscles always are slow to harden up. Did you succeed in swimming in your first lesson? If not, had you learned nothing at all in that first lesson? I mention these truisms because *Le Penseur's* own ponderings (which is what we are all along concerned with) can be in just the same plight. He too flogs away and makes no headway today; tomorrow he too seems to be in a worse muddle than ever; yet

teach him. To ponder is to try to make up for *un*-instruction. What I am trying to think about for myself is indeed something that the Angel Gabriel conceivably might have known and taught me instead, but it is something that no one in fact did teach me. That is why I have to think. I swim because I am not a passenger on someone else's ferry-boat. I think, as I swim, for myself. No one else could do this for me.

Now I make a start on the second leg of my knight's move, namely to bring out a connection, *not* an identity, between being taught and thinking.

I have already declared that the pupil does not qualify as having even begun to learn to spell or solve anagrams so long as all he is ready and able to do is to play back the dictated spellings of a few selected specimen words or the dictated solutions of a few specimen anagrams.

Only when he begins to suggest possible spellings of his own for new words, or possible solutions of his own new anagrams and to reject some such suggestions, does he qualify. Ditto for learning rock-climbing, chess, and philosophy. His blank repetition of what the teacher said or exhibited is not yet what the teacher was trying to get him to do. But notice now: when the pupil does make his own applications and misapplications in new tasks of what his teacher has told or exhibited, then he certainly qualifies as thinking. For he is now applying off his own bat a recently learned operation-pattern to a new object or situation; he is today innovating according to a formerly set precedent; he is today chancing his arm subject to some previously inculcated safeguards. His frequent mistakes and failures are now his doing; his occasional successes are now his doing. It is he and not his teacher who now merits praise or blame for getting things right or wrong.

Here we are confronted by a seeming paradox. For we seem to be saying that in spelling or misspelling a new word, or in solving a new anagram, or in composing his own limerick or sonnet, the pupil is doing something on his own, which, therefore, he had not been taught. If it is his own sonnet or limerick, or his own anagram-solution, or his own spelling or misspelling of the word "rabbit," then *that* could not have been something that his teacher had taught him. Conversely, if that sonnet, that anagram-solution, or that spelling of "rabbit" had been taught by the teacher, then it was not the pupil who thought it up, but the teacher — or his teacher. However, the appearance of a paradox vanishes when we remember that having learned, say, to spell does not reduce to having become the passive recipient and subsequent automatic regurgitator of some dictated letter-sequences. It is to have become able and ready to attempt new applications of acquired patterns, methods, precedents, examples, etc. The young rock-climber is first learning to climb when he ceases to tread *where* his teacher trod and begins to try to tread over new slopes *in the ways in which* his teacher treads.

* * *

I am not changing the subject when I now invite you to consider (A) what

Socrates and the slave boy do in Plato's dialogue, the *Meno*; and (B) what they do in my sequel to that dialogue.

(A) Socrates asks the geometrically innocent slave boy how he would construct a square precisely double the area of a given square. In the end the boy comes out with the right answer, namely that the square on the diagonal of the original square is of twice the area of that square itself. But Socrates elicits this correct Pythagorean answer without *telling* the boy any geometrical truths, however simple. He merely asks him questions, and then by further questions gets him to abandon his first tempting answers. We need, for our purpose, to note a few points about this piece of interrogative pedagogics or tutorial cross-questioning.

(1) Though this point is not emphasized, the boy is already equipped with a modicum of elementary arithmetic and, of course, with colloquial Attic Greek.

(2) Unaided Socratic cross-questioning could not possibly have made similar progress or any progress at all towards the solution of factual questions about, say, the casualties at Marathon or the date of the next eclipse of the sun. Nor could *Le Penseur's* unaided ponderings.

(3) Though Socrates draws his famous moral that the boy must in a previous existence have got to know that Pythagorean theorem for it to be able to be elicited from him now by mere questioning, we, surely like all the disputatious young men in the Academy who were any good, flatly reject this moral on the obvious ground that if, without still ulterior memory-flogging, the boy had been able in that supposed previous existence to discover the Pythagorean theorem by thinking, then there is nothing to prevent the boy from discovering it by thinking today. How was it originally discovered? Some solutions to some problems are attainable by pondering, all the more so when the ponderer is cunningly and persistently barked at by a Socratic sheepdog who already knows the way.

(4) Although the boy has given to each question, one by one, first his ill-thought-out answers and finally the wanted well-thought-out answer, still he does not claim to have thought out the whole proof for himself. After a fumble

or two he had picked up each of the several links one by one, but it was Socrates who had controlled the chain. Already knowing the proof of Pythagoras' Theorem, Socrates, unlike the boy and also unlike *Le Penseur*, knew all along what questions were the right questions to ask and what was the right, or at least a suitable, sequence in which to ask them.

(B) Now listen to my own fabrication, namely the story of Socrates' *second* interview with the boy. Socrates begins again by putting a theorem-sized question to the boy; and he starts off as before by posing appropriate questions and demolishing the boy's initial answers to them. But now — oh horror! — Socrates realizes that he himself has either quite forgotten or, even worse, never had mastered the second half of this second theorem's proof. He has no idea how to go on; and, as Euclid's *Elements* has not been published yet, he cannot even surreptitiously consult that will-be standard work. What is to be done? He frankly confesses the crisis to the boy, who, to start with, sees no difficulty. He says, "But yesterday, Socrates, you did not tell me any of the answers; you only asked me questions, to which I myself after some false starts gave *you* the right answers. Why can't we do that again? You don't need to know their answers in order to ask questions."

Socrates explains that randomly thrown out questions cannot be expected to assemble themselves into a proof-generating sequence, but he concedes that with huge luck they might do so; and he concedes that he, Socrates, has had enough teaching experience in general, and has enough geometrical knowledge in particular to avoid asking lunatic, irrelevant, or infantile questions and to see through grossly silly answers. He cannot, as yesterday, pilot the slave boy, since today he does not know the channels. But he can make and coordinate some conjectural pilot-like suggestions and experiments, and he can now and then spot where rocks and shoals might be before getting to them. He is at home on salt water in general, though not on this particular stretch of it.

So Socrates starts off, pessimistically enough, trying out a question that occurs to him and then another and

another; and by lunchtime all the progress they have made is the negative discovery that most of these particular questions had better not be asked again; though one or two short question-sequences had felt a bit promising. And that, very likely, is all the progress that they do make. But it could be that on the next day Socrates and the boy are getting an idea of some of the deeps and shallows, some of the headlands and islands. Even if steering directly towards their unseen goal is still impossible, steering away from some specific troubles is becoming fairly easy. Perhaps eventually Socrates' initially chartless quasi-piloting fetches them nearly or even exactly where they want to be. Explorers always do have to start off chartless; yet, as we know, some of them sometimes with luck, flair, patience, and an already trained eye for country, end up with a bit of what had been no-man's-land now properly charted.

Now for my moral. This joint plight of the slave boy and my Socrates who on this occasion had not done his geometrical homework is precisely the plight that Pythagoras himself had been in during the hours or weeks when he was still trying to discover a proof of his own dear Pythagoras' Theorem. For hours or weeks Pythagoras had been his own slave boy being plied by his own unprepared Socratic self with hesitantly mooted candidate-questions nearly, though not quite, randomly hit on, and tentatively posed in nearly, but not quite, random sequences. By thinking he eventually solved his problem without once during the entire course of his ponderings being yet equipped to teach himself or anyone else its solution. He had not, and no one had, done his homework. It was not yet there to do, as it has been there ever since.

Unlike the guide who leads his docile companions along paths that already exist and are already familiar to him, though not to them, the pioneering pathfinder, Pythagoras say, has no tracks to follow; and any particular sequence of paces that he tentatively takes through the jungle may soon have to be marked by him as leading only into swamps or thickets. All the same, it may be, though it need not be, that in a day's time or a year's time he will have made a

track along which he can now guide docile companions safely and easily right through the jungle. How does he achieve this? Not by following tracks, since there are none to follow. Not by sitting down and wringing his hands. But by walking over ground where tracks certainly do not exist, but where, with luck, assiduity, and judgment, tracks might and so perhaps *will* exist. All his walkings are experimental walkings on hypothetical tracks or candidate-tracks or could-be tracks, or tracks on appro; and it is by so walking that, in the end, while of course he finds lots and lots of impasses, he also finds (if he *does* find) a viable track.

Pythagoras or, in general, *Le Penseur* is also in just this same unencouraging position. Tracks are found by the pioneer (if they *are* found), only by quasi-following could-be tracks, that is, by his experimentally trying out on appro one bit of ground after another to see if they could henceforth be unanxiously trodden by docile travelers who are not exploring.

There is my moral. Let me stiffen it with two cautionary remarks:

(1) To repeat: Pythagoras in trying to think out the proof of his theorem is not teaching himself this proof, since he has not yet found it. Nor is my Socrates teaching the boy the thing that he has omitted to prepare himself with.

(2) Pythagoras, my Socrates or, to generalize, *Le Penseur*, is tentatively, experimentally, suspiciously, and quite likely despondently trying out on himself expedients, routines, procedures, exercises, curbs, and dodges of types which teachers do employ, not always successfully, when they want to teach things that they know to pupils who do not. He is trying them out on himself to see if they will be effective, which very often they will not be. They are not already established leads to his goal, but only could-be leads or candidate-clues or potential cues, as the As-If tutorial questions unconfidently put to the slave boy by my geometrically unprepared Socrates.

To say that *Le Penseur* is experimentally subjecting himself to on appro tutorial questions, clues, deterrents, exercises, etc., is not to say merely that he is being histrionic. He need not be, though he may be, aping his old headmaster or his

former geometry tutor. The expert moves that you make in climbing the cliff-face may be imitated by a mere mimic; but the patterns of them may also be applied experimentally by the young climber who is trying out ways of scrambling upwards on such cliff-faces. He is deliberately trying to climb cliffs after the ways in which you climb them. He is not aping you but learning to do things of sorts that you have long since learned to do. He is following your examples, not trying to simulate your motions. His success, if he does succeed, is a bit of scaling, not a bit of representing.

Naturally my *Penseur* knows what it is like to be taught things that he does not know by teachers who do; and he knows what it is or would be like himself to be the teacher of some things that he knows to others who do not. So now he experimentally applies to himself, just in case they may turn out to be effective, operations of types that are often or sometimes employed effectively by live teachers upon live pupils. He chalks upon the back of an envelope a diagram, which he does not know to be even an approximation to the right one, in the rather faint hope that it may get him to see something that he needs to see, in the way in which the right diagram on the classroom blackboard often but not always does get the students to see what they need to see. Or he suspiciously concocts for his still unfledged argument a candidate-premise just to see whether it will work, or can be modified into working, and a premise in his argument. It is not yet a premise. It is a premise on appro. He is not basing anything on it; he is only As-If basing something on it. He is not just theatrically staging the moves of an arguer; and he is not just playing at arguing; he is working, working experimentally with a merely could-be argument-step. This is what an hypothesis is, a could-be premise on appro.

We began with some vexatious teasers about thinking, like "if it is an art, craft, or skill, how do we acquire it, and why do schools not give special instruction in it? Why does it not always work? How does it ever work?" Now we can see, just one rung lower down on the sophistication-ladder, that the same questions, though still vexatious, are not quite as vexatious when asked about teaching. Is teaching one art, craft, or

skill among others? Could universities teach it? What would they be teaching you in just teaching you to teach (period)?

No, teaching, like thinking, is after all not just one art or skill among others, any more than cooking is one soufflé among others. Yet it remains true, though I think unimportantly true, that there do exist instructional dodges, expedients, etc., varying with different pupils and with different kinds of lessons, without which a good golfer may be a poor golf coach; or without which a new Comprehensive School teacher of French may cope less effectively with her unruly charges than does her colleague whose French is much weaker. I suppose it is such crafts that Colleges of Education do teach. For "education" is not itself the name of one teachable craft among others. "Learning to teach..." is an unfinished phrase, because "teaching..." is unfinished.

My concluding point is this. Plato said that in thinking the soul is conversing with herself; or maybe "debating" would be nearer the Greek. J.B. Watson said that thinking is *sub-saying*; plenty of philosophers' and psychologists declare that all thinking is conducted *in* symbols, or *in* words and sentences, or *in* pictures or *in* diagrams or *in* formulae, etc. The metaphor of words or sentences being the vehicles of thought has still a vogue, and the idea that thought, like American golfers, is in need of vehicles seems to be quite generally swallowed. But what sorts of generalizations about thinking are these? Have amateur or professional introspections revealed this general dependence of thinking upon wording? But if that is all, might not Trobrianders think well enough without such vehicles? After all, we Europeans do eat with knives, forks, and spoons. Yet Trobrianders, maybe, eat without gastronomic vehicles. Or are these generalizations about thinking supposed to be conceptual necessities? Yet if so, just how does the description of someone as, after breakfast, *pensant*, carry with it the information that during that time he was saying things to himself in his head or picturing things to himself in his mind's eye, etc.?

We can now cope with this bother in two moves:

(1) For person A to teach person B something, A must either say things to B, which B hears, takes in, etc.' or A writes things or draws things, which B reads, copies, takes in, etc.' or A demonstrates or shows things to B, which B sees or hears or tastes or smells, etc.' or A audibly jeers at B or visibly beckons or frowns to him, or noticeably pauses meaningfully; and so on and so on. A cannot teach B without communicating with him. Lessons have to be got across, often across a classroom. Lessons are a very special sub-species of interpersonal communications, namely of educatively intended communications. *Of course*, the tuition of B by A requires vehicles.

(2) So, in so far as *Le Penseur* is occupied in experimentally or on approving trying out on himself, as on his inner slave boy, things of the sorts that constitute the vehicles by which live teacher A conveys his lessons to live pupil B, he is necessarily operating, overtly or just in imagination, *with* and *on* such things as words, sentences, diagrams, signals, gestures, etc. He is not, as we have seen, just mimicking real teachers; but he, just as much as the actor who is mimicking Socrates or Mr. Chips, has in logic to do the sorts of things that are done by Socrates or Mr. Chips in teaching their pupils. We might parody Plato and say that in thinking the soul is not just conversing or debating with herself; she is experimentally conveying could-be lessons to herself. Sometimes she is quasi-lecturing to herself; old-style German thinkers seemed to be doing this all the time.

Cartesians love to depict the activity of the thinker as consisting of supremely immaterial ingredients, such as impalpable ingredients as ideas, intuitions, insights, etc. In fact, the crude stuff of thinking has to consist of the perfectly ordinary vehicles of everyday interpersonal lesson-communication, though here employed not in its normal didactic task, but in the parasitic or higher-order task of query-tuition. It does not matter whether *Le Penseur* actually draws his diagrams on paper, or visualizes them as so drawn; and it does not matter whether in his quasi-posing his on approving Socratic questions to himself he speaks these aloud, mutters them under his breath, or only As-If mutters them on

his mind's tongue. What matters is what he is trying to do, and is sometimes succeeding in doing, by thus overtly or covertly plying himself with these candidate-lesson-vehicles, for example, that he is trying to find, and is sometimes finding, the proofs of theorems. As A's well-charted teaching can occasionally dispel B's ignorance, so my uncharted thinking can occasionally dispel my own ignorance. Thinking is trying to better one's instructions; it is trying out promissory tracks which will exist, if they ever do exist, only after one has stumbled exploringly over ground where they are not.

“Thinking is trying to better one’s instructions; it is trying out promissory tracks which will exist, if they ever do exist, only after one has stumbled exploringly over ground where they are not.”

A Game of Catch

Richard Wilbur

Monk and Glennie were playing catch on the side lawn of the firehouse when Scho caught sight of them. They were good at it, for seventh-graders, as anyone could see right away. Monk, wearing a catcher's mitt, would lean easily sidewise and back, with one leg lifted and his throwing hand almost down to the grass, and then lob the white ball straight up into the sunlight. Glennie would shield his eyes with his left hand and, just as the ball fell past him, snag it with a little dart of his glove. Then he would burn the ball straight toward Monk, and it would

spank into the round mitt and sit, like a still-life apple on a plate, until Monk flipped it over into his right hand and, with a negligent flick of his hanging arm, gave Glennie a fast grounder.

They were going on and on like that, in a kind of slow, mannered, luxurious dance in the sun, their faces perfectly blank and entranced, when Glennie noticed Scho dawdling along the other side of the street and called hello to him. Scho crossed over and stood at the front edge of the lawn, near an apple tree, watching.

"Got your glove?" asked Glennie after a time. Scho obviously hadn't.

"You could give me some easy

grounders," said Scho. "But don't burn 'em."

"All right," Glennie said. He moved off a little, so the three of them formed a triangle, and they passed the ball around for about five minutes, Monk tossing easy grounders to Scho, Scho throwing to Glennie, and Glennie burning them in to Monk. After a while, Monk began to throw them back to Glennie once or twice before he let Scho have his grounder, and finally Monk gave Scho a fast, bumpy grounder that hopped over his shoulder and went into the brake on the other side of the street.

"Not so hard," called Scho as he ran across to get it.

"You should've had it," Monk shouted.

It took Scho a little while to find the ball among the ferns and dead leaves, and when he saw it, he grabbed it up and threw it toward Glennie. It struck the trunk of the apple tree, bounced back at an angle, and rolled steadily and stupidly onto the cement apron in front of the firehouse, where one of the trucks was parked. Scho ran hard and stopped it just before it rolled under the truck, and this time he carried it back to his former position on the lawn and threw it carefully to Glennie.

"I got an idea," said Glennie. "Why don't Monk and I catch for five minutes more, and then you can borrow one of our gloves?"

"That's all right with me," said Monk. He socked his fist into his mitt, and Glennie burned one in.

"All right," Scho said, and went over and sat under the tree. There in the shade he watched them resume their skillful play. They threw lazily fast or lazily slow — high, low, or wide — and always handsomely, their expressions serene, changeless, and forgetful. When Monk missed a low backhand catch, he walked indolently after the ball and, hardly even looking, flung it sidearm for an imaginary put-out. After a good while of this, Scho said, "Isn't it five minutes yet?"

"One minute to go," said Monk with a fraction of a grin.

Scho stood up and watched the ball slap back and forth for several minutes more, and then he turned and pulled himself up into the crotch of the tree.

"Where are you going?" Monk asked.

"Just up the tree," Scho said.

"I guess he doesn't want to catch," said Monk.

Scho went up and up through the fat light-gray branches until they grew slender and bright and gave under him. He found a place where several supple branches were knit to make a dangerous chair, and sat there with his head coming out of the leaves into the sunlight. He could see the two other boys down below, the ball going back and forth between them as if they were bowling on the grass, and Glennie's crew-cut head looking like a sea urchin.

"I found a wonderful seat up here,"

Scho said loudly. "If I don't fall out." Monk and Glennie didn't look up or comment, and so he began jouncing gently in his chair of branches and singing, "Yo-ho, heave ho" in an exaggerated way.

"Do you know what, Monk?" he announced in a few moments. "I can make you two guys do anything I want. Catch the ball, Monk! Now you catch it, Glennie."

"I was going to catch it anyway," Monk suddenly said. "You're not making anybody do anything when they're already going to do it anyway."

"I make you say what you just said," Scho replied joyfully.

"No, you didn't," said Monk, still throwing and catching but now less serenely absorbed in the game.

"That's what I wanted you to say," Scho said.

The ball bounded off the rim of Monk's mitt and plowed into a gladiolus bed beside the firehouse, and Monk ran to get it while Scho jounced in his treetop and sang, "I wanted you to miss that. Anything you do is what I wanted you to do."

"Let's quit for a minute," Glennie suggested.

"We might as well, until the peanut gallery shuts up," Monk said.

They went over and sat cross-legged in the shade of the tree. Scho looked down between his legs and saw them on the dim, spotty ground, saying nothing to one another. Glennie soon began abstractedly spinning his glove between his palms; Monk pulled his nose and stared out across the lawn.

"I want you to mess around with your nose, Monk," said Scho, giggling. Monk withdrew his hand from his face.

"Do that with your glove, Glennie," Scho persisted. "Monk, I want you to pull up hunks of grass and chew on it."

Glennie looked up and saw a self-delighted, intense face staring down at him through the leaves. "Stop being a dope and come down and we'll catch for a few minutes," he said.

Scho hesitated, and then said, in a tentatively mocking voice, "That's what I wanted you to say."

"All right, then, nuts to you," said Glennie.

"Why don't you keep quiet and stop bothering people?" Monk asked.

"I made you say that," Scho replied, softly.

"Shut up," Monk said.

"I made you say that, and I want you to be standing there looking sore. And I want you to climb up the tree. I'm making you do it!"

Monk was scrambling up through the branches, awkward in his haste, and getting snagged on twigs. His face was furious and foolish, and he kept telling Scho to shut up, shut up, shut up, while the other's exuberant and panicky voice poured down upon his head.

"Now you shut up or you'll be sorry," Monk said, breathing hard as he reached up and threatened to shake the cradle of slight branches in which Scho was sitting.

"I want—" Scho screamed as he fell. Two lower branches broke his rustling, crackling fall, but he landed on his back with a deep thud, and lay still, with a strangled look on his face and his eyes clenched. Glennie knelt down and asked breathlessly, "Are you O.K., Scho? Are you O.K.?", while Monk swung down through the leaves crying that honestly he hadn't even touched him, the crazy guy just let go. Scho doubled up and turned over on his right side, and now both the other boys knelt beside him, pawing at his shoulder and begging to know how he was.

Then Scho rolled away from them and sat partly up, still struggling to get his wind but forcing a species of smile onto his face.

"I'm sorry, Scho," Monk said. "I didn't mean to make you fall."

Scho's voice came out weak and gravelly, in gasps. "I meant — you to do it. You — had to. You can't do — anything — unless I want — you to."

Glennie and Monk looked helplessly at him as he sat there, breathing a bit more easily and smiling fixedly, with tears in his eyes. Then they picked up their gloves and the ball, walked over to the street, and went slowly away down the sidewalk, Monk punching his fist into the mitt, Glennie juggling the ball between glove and hand.

From under the apple tree, Scho, still bent over a little for lack of breath, croaked after them in triumph and misery, "I want you to do whatever you're going to do for the whole rest of your life!"

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Final Evaluation of the Pilot Program in Philosophical Reasoning in Lexington Elementary Schools 1978-79

In the spring of 1978 Lexington elementary schools completed a one-half year pilot program in philosophical reasoning among fifth and sixth grade students. The evaluation of that program recommended that a full-year pilot program be conducted and evaluated in 1978-1979. This Final Evaluation follows through on that recommendation.

The findings are encouraging. They seem to bear out the promise of the Preliminary Evaluation and to give force to the recommendation in that Evaluation "that a specific place for philosophical reasoning eventually be provided in the curriculum for all elementary students."

The Philosophical Reasoning Program (PRP) seems to have significantly improved students' abilities in the use of formal and informal logic, and it has been favorably received by most students tested. While our results show the need for improvement in certain areas, we hypothesize that the final pilot program

was successful in helping elementary school children learn how to think better.

Yet we must admit that this is an informed estimate, not a hard conclusion. Differences between good and poor thinking may be too delicate to be absolutely measured in filled-in blanks and rendered in statistical significances. Learning how to discuss effectively, to respect others' opinions and to modify one's own opinions through argumentation and evidence — all these were central features of PRP classes. Many tests used in this Final Evaluation are necessarily attempts to quantify what is essentially unquantifiable; we want to know the quality of the kids' thinking, and we want to know how well we have been able to help them think better. Even as we evaluate through numbers, we hope that our students will one day find more sensitive ways than we have yet devised to tell us what is on their minds. Perhaps that is what philosophical reasoning is all about.

**“Our finding
is that
PRP worked.”**

I. Conditions of the Program and its Testing

This evaluation draws on several sources. We pre- and post-tested approximately 150 students in six fifth and sixth grade classes in three elementary schools using materials of the Institute for the Advancement of Philosophy for Children. Each class spent about two hours per week in language arts and/or social studies throughout the year on the program centered around the children's novel, *Harry Stottlemeier's Discovery* by Matthew Lipman. We compared these students with pre- and post-tests with approximately 150 "control group" students in classrooms where philosophical reasoning was not offered.

At the beginning of the final pilot year (Fall, 1978), eight classrooms were involved in the program. One of these classes dropped out of the program in mid-year when its teacher decided that the thing just wasn't working. Another class discontinued the program due to the conflicting sabbatical leave requirements of its teacher. The work of neither of these classes is reflected in this Final Evaluation.

Our study is also informed and supported by parallel studies. Renee Sack, a PRP teacher in the preliminary pilot, devoted a good deal of her sabbatical leave time at Harvard during 1978-79 to further study and evaluation of the program. The conclusion of her Harvard paper, *An Analysis of the Harry Stottlemeier Philosophical Reasoning Program - as Implemented in the Lexington Elementary Schools*, is available from the IAPC. Ms. Sack's general view is that "the course in philosophical reasoning for children has as its basis a worthy goal and has the potential to help children become more critical and creative thinkers." Also,

during the past year, the Institute for the Advancement of Philosophy for Children released the results of its 1976-78 experimental research in philosophy for children. Basing its research on public school children in Newark and Pompton Lakes, New Jersey, the Institute found highly significant improvement in reading, mathematics, reasoning and academic readiness among experimental group students. These *Results* are also available from the IAPC. While the Lexington PRP program was under way, a similar experiment was conducted in six elementary schools in the Hilo, Hawaii, area of the Big Island. The *Evaluation of the Hawaii Philosophy for Children Project* is reproduced elsewhere in this Journal; its findings generally conform with Lexington's.

Throughout the pilot year in Lexington, PRP teachers received extensive concurrent instruction in seventeen 1½ hour seminars conducted by professional philosophers. In these seminars both the content and methods of teaching reasoning skills in formal and informal logic, epistemology, ethics and aesthetics were examined. Conducting formal philosophical discussions with students and providing written and other classroom activities were stressed. In all of this, teachers were assisted by the extensive instructional materials provided by the Institute for the Advancement of Philosophy for Children.

The wholehearted cooperation and effort of its teachers made the course and its Evaluation possible. Teachers Renee Sack, Mary O'Connell, Phyllis Gruber, Alvin Knowlton, Kelly Ford, Edith Sparre and Helena Seyferth are, more than anyone else, responsible for this

promising intervention in Lexington's curriculum. They were aided in seminars by instructors especially trained in philosophical education - Dr. Phillip Guin of the Institute for the Advancement of Philosophy for Children, Mr. David Ackerman of Newton Public Schools, and Dr. Clyde Evans of the University of Massachusetts (Boston). Dr. Henny Wenkart of Harvard used her professional knowledge as a philosopher to evaluate one of the tests. Mr. Richard A. Buck and Mr. Saleh Rahman of Lexington High School provided statistical expertise in the quantitative sections of the Evaluation.

This evaluation presents two main areas of findings: Changes in Students' Thinking Skills, and Student Acceptance of the Program. Teacher evaluations of this work are presented concurrently.

II. Changes in Thinking Skills

Did PRP students achieve significant improvement in thinking skills? To answer this question we administered four different tests. Each test pitted experimental students in the PRP against control group students of equal ability who were not in the program. Our finding is that PRP worked.

Our criterion of "equal ability" derives from national stanine scores in the Comprehensive Test of Basic Skills given to most Lexington fourth and sixth grade students. From the CTBS we chose as most appropriate to PRP the national stanine scores on Reading Total, Reading Comprehension and Language Total as they appeared in students' 4th grade testing. We then matched these three scores, insofar as

possible, for each experimental student with the same scores for each control group student. Ideally, an experimental group student with a Reading Total stanine score of 5, a Reading Comprehension stanine score of 4, and a Language Total stanine score of 5 in his/her CTBS was matched with a control group student with the same 5-4-5 pattern. National stanine scores in control and experimental groups ranged from a low of 4-4-4 to a high of 9-9-9. On a scale of 1 to 9, a score of 5 indicates that the student is just about at grade level.

Controlling our experiments for "equal ability" poses a special problem for these Lexington students. We are "short" in lower stanine ability level students as measured by the CTBS. In other words, we do not have in Lexington a typical national distribution of ability levels, and this makes difficulties for statistical evaluations of our program.

All students in these tests attended Lexington Public Schools, though control and experimental groups attended, in most cases, separate elementary schools within the system. In all statistical evaluations we sought a statistical significance level of .05, the standard level for most statistical work.

Tests of Thinking Skills

Test 1. Was there significant improvement in formal and informal logic skills among PRP students? To help answer this question we administered a 44-item multiple-choice test developed by Educational Testing Service (available through courtesy of the Pompton Lakes, N.J. Bd. of Education) as a pre-test in the fall of 1978 and as a post-test in the spring of 1979 to a total of nearly 300 Lexington students. *The results of this test show a significant improvement by the experimental PRP group over the control group.* After eliminating unacceptable samples, we found from a sample size of 64 control and 64 experimental students (i.e., 64 pairs) that $t = -3.05132$ where the critical region at .05 significance began at $t = -1.671$. This very strong showing in favor of the experimental group essentially agrees with the findings of the 1978 Preliminary Evaluation when the same test was given.

$$t = \frac{\bar{y} - 0}{\sqrt{\frac{s^2}{n}}}$$

\bar{y} = mean difference between pre- and post-test changes in control and experimental groups.

Upon closer examination, this test suggested an interesting hypothesis. It suggested that, in Lexington, the greatest improvement in philosophical reasoning occur-

red among Lexington's "average" and "below average" students. We broke down the results into three stanine groups and found the following:

National stanine group range	n =	t at .05	Lexington t	Sig.
Lexington "low": 4-4-4 to 5-6-8	19	-1.734	-2.002	yes
Lexington "middle": 6-6-5 to 7-8-8	29	-1.701	-1.830	yes
Lexington "high": 8-7-6 to 9-9-9	16	-1.753	-1.356	no

PRP students at stanines 4-4-4 through 7-8-8 significantly improved between pre- and post-tests more than control students in the same period. PRP students in stanines 8-7-6 to 9-9-9 did not significantly improve more than control group students. I do not definitely "know" why we get this disparate situation. But it can be noted that, in this test, the Lexington "high" stanines comprised a smaller sample than either of the other two stanine groups. Possibly our findings in Test 2, below, will help explain. Furthermore, the ceiling of improvement pressed down upon many students in the top stanines. In the pre-tests, they were racking up scores in the upper thirties against the perfect score of forty-four. How much room for improvement is left at that point? Even a point improvement of one or two in the post-test will not mean too much for either side when $n = 16$ pairs.

Test 2. Is there a significant correlation between the philosophical reasoning, program and the ability of students to express reasoning through writing? This was the question PRP teacher Renee Sack asked in a test she devised and administered during her 1978-79 sabbatical leave. The test results indicate that there is a significant correlation.

Ms. Sack administered her test to five fifth- and sixth-grade classes at the Franklin School at the end of the school

year. Three classes had completed a year or PRP; two control classes had completed the regular curriculum. Here is the Sack Test:

Here are some samples of reasoning. Would you classify them as: a) good reasoning; b) not so good but possibly okay; c) seems good but possibly unsound; d) poor reasoning.

Explain your choice for each situation.

- 1. I'm staying away from canned foods ever since I read about that man who died from eating canned soup that wasn't good. I'm sure the next can I open will be poisoned.*
- 2. My friend says Watership Down is a very good movie, and I'm sure he's right because he always gives the correct answer in school.*
- 3. That new girl in school is always causing trouble. Yesterday, the moment after she walked in the front door of the building, there was an explosion in the chemistry laboratory on the top floor. I'll bet she caused that explosion.*
- 4. The factories in this town have shut down and everyone's out of work. The unemployment checks have about run out. Pret-*

ty soon people will be homeless and starving. I think lots of new jobs need to be created so people can have work and earn a living.

Students were asked to classify the quality of the reasoning by choosing a, b, c, or d, and to write two or three sentences explaining their answers. For each of the four questions, one point was given for classifying the reasoning quality consistent with the explanations, and 0 to 3 points were given for the quality of the explanation itself. The highest possible score for each question was therefore 4, and the highest possible total score for each test was 16. Using formal and informal logic was necessary in answering these questions. Students' answers were scored by an outside authority, Dr. Henny Wenkart, a Ph.D. in philosophy at Harvard. Dr. Wenkart did not participate in constructing the test, nor did she know any of the students tested or teachers involved.

For statistical analysis we compared the control group of two classes with the experimental group of three classes, a total of 83 students.

The average and below average group in stanines 3, 4 and 5 showed that the experimental PRP group achieved an average score of 9.25 out of a possible 16, while the control group achieved the lower average score of 8.36 out of 16. As encouraging as this difference appears, it is not statistically significant at the .05 level. Two factors should be remarked here. First, the sample size in these lower stanines was small — only 11 in the control group. It is likely, as in the high stanine scores in Test 1, that the sample size here was too small to produce significant results. Secondly, as in the high stanine scores in Test 1, the size-of-sample problem was compounded by the limited range of possible scores. This is the second instance where we failed to achieve statistical significance with small samples and limited test ranges, so that it may be fair to infer that these factors, more than the PRP input, were responsible for lack of statistical significance. This conjecture is strengthened when we look at the results of the Sack Test among the rest of the students at Franklin School.

The above-average students in the

test — those in national stanines 6, 7, 8 and 9 — showed that *the experimental group of PRP students scored significantly better than their counterparts in the same stanines among the control group of non-PRP students.*

In the experimental group, $t = 2.66$, well inside the critical region at .05 level of significance at $t = 2.011$. The sample sizes were much greater in these high stanines: 22 in the control group and 29 in the experimental group. The statistical conclusion is clear: among students of above average ability there was a significant advantage in favor of the experimental group which had completed a year of philosophical reasoning.² As a matter of additional interest, the average absolute scores out of 16 were: for the control group, 8.96, and for the experimental group, 10.9 — nearly two scoring points higher for the PRP students.

$$2. \quad t = \frac{y_2 - y_1}{\frac{s_2}{n_1} + \frac{s_1}{n_2}}$$

Test 3. How well have PRP students in the 1978 pilot program done since then? Evidence suggests PRP students have moved ahead of their control group counterparts in the year since they took *Harry*. We compared the sixth grade stanine scores of the experimental and control groups in the Preliminary Evaluation with the fourth grade stanines of both groups. Findings: Reading Totals averaged .2 stanine gains in favor of PRP students; Language Totals averaged .3 stanine gains in favor of PRP students; Reading Comprehension stanines averaged a .1 gain in favor of the control group. The net gain for PRP students was .4 stanines. This evidence suggests that the *Harry* program's intervention between 4th and 6th grade CTBS testing may have helped PRP students improve their scores more than the standard curriculum. Again, the sample size (only 11 pairs) was probably too small and the scoring range (only 1-9) may have been too narrow for statistical significance.

Test 4. Was there a significant increase in "imaginative speculation" among PRP students? To find out we

administered in pre- and post-testing an instrument called "What Could It Be?" to 38 control and 38 experimental students, again matched by stanine scores. This was the single unfavorable test of all we administered. We found no significant improvement in the experimental group; in fact, the control group showed greater improvement.³

"What Could It Be?", like "Experimental Version III", was developed by Educational Testing Service for the *Harry* program. It was given in the 1978 Lexington pilot program, where it showed significant improvement for the PRP group over the control group. To explain the different result in the Final Pilot Program, it is worth noting that we had strong reservations about the value of this test when we gave it the first time. As we said in the Preliminary Evaluation:

"The second test, called "What Could It Be?" yielded promising but much less firm statistics. "What Could It Be?" intends to test the imaginative abilities of students. It presents a series of four designs and asks test takers to list all the things they could be. In scoring this test we simply counted the number of answers students gave, taking no account of the quality of answers. We did not count the number of unique answers, for instance. But not even an analysis of uniqueness could express the quality of these answers; when I scanned answers to this test, I found answers that were to me stunningly interesting, but which I had no way to quantify. Yet this test does have interest in this evaluation in that it may serve as a very rough illustration of our aim to improve speculative thinking among Lexington students."

$$3. \quad \text{STATISTICAL PROCEDURE:}$$

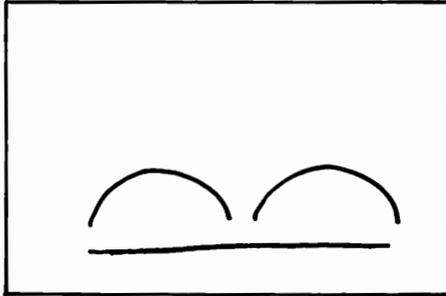
$$t = \frac{y_2 - y_1}{\frac{s_2}{n_1} + \frac{s_1}{n_2}}$$

AT .05 $t = -1.680$

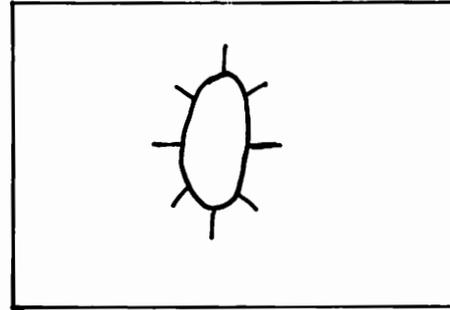
$$t = 3.29853$$

How, by all that is statistically holy, does one quantify the wit in such answers as the following from both control and experimental groups?

What do you think this drawing could be?

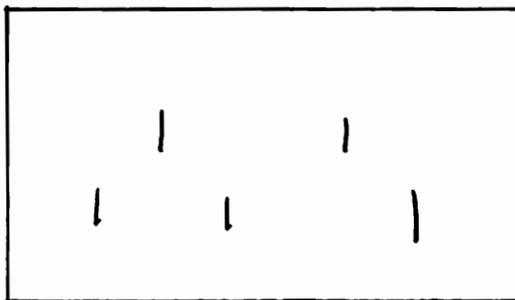


- two smiles landing on the moon
- two jump ropes doing pushups
- looking down a lady's dress
- a French person with too big a hat on
- two people kissing in a pool
- beginning of a heart
- worm that swallowed a camel
- snobby mother and snobby child
- Nessie
- bottom view of a male or female going to the toilet



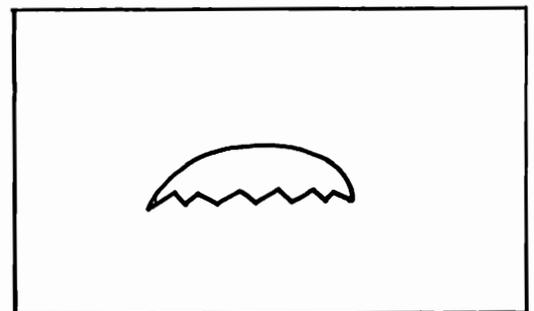
- Oriental anesthesia
- a spider getting a suntan
- electrified lollipop
- a scared moon
- a bun with too many hot dogs
- a house of pencils
- girls on the Legs commercial
- One student listed 33 different items, each with six legs. The items ranged from a cow, a house, a lady, a word, through a liver and a notebook.
- a ball wearing a wig
- a person in an electric storm
- square dancing
- fireman tells people to jump
- symbol of might
- clock without hours
- hole in a person's pants.

What do you think this drawing could be?



- patrol of ants
- tin can alley
- Braille letter
- soccer position
- skinned knee
- bandaid
- crewcut just growing back
- TV tennis
- 5 ants playing jump rope

What do you think this drawing could be?



- a broken world
- the moon playing the accordion
- a house for triangular-shaped ants
- a pretended smile
- a toad's hand
- Einstein's mustache.

... and there were many more to delight and confound the evaluator. One student found 67 different things in the four drawings.

Student Acceptance of the Program

As a group, our fifth and sixth graders responded favorably to their year of instruction in philosophical reasoning. Our main source of information on this point was a Student Evaluation questionnaire, devised by PRP teachers and given to all PRP students in one class period at the end of the school year. While the results of this study were favorable to the *Harry* program, the reliability of such qualitative evaluations by students must always be regarded circumspectly. A great deal depends on the conditions under which such questionnaires are administered, the time of the year, and the surrounding events.

We asked students if they thought learning philosophical reasoning was an important purpose to them: 71% of those answering said yes; 29% said no (Question 1b). 46% of those answering thought adding *Harry Stottlemeier* to school courses would be of "great value"; 34% thought it would be "partially valuable"; only 20% thought it would be of "no value". (Question 2). We also asked if students found anything "confusing" in the course: 27% said they did, and when asked to explain, typically spoke of understanding the "mind", or of problems in formal logic like "all" sentences. (These may be valuable kinds of things to find "confusing.")

Inherent in this type of questionnaire is the difficulty of portraying the attitudes of a group, which necessarily submerges those of any given individual. The Questionnaire summary does not take account of several students who embodied contradictions within their questionnaire answers. Throughout most of the questionnaire one student praises the value of learning logic and then — illogically! — says (in question 15) that he would change *Harry* by getting "most of the logic out of the book", and winds up in question 16 complaining that there is "too much logic" in the course. Another student disliked the course ("it's useless"), but when asked if the book *Harry* was helpful, agreed that it was "because it helped me understand better" (question 3). Fortunately, such contradictions were rare.

Student Evaluations indicate two areas that need improvement. Over half

the students disliked the book *Harry Stottlemeier's Discovery* (Q. 4), though a majority found it helpful (Q. 3). Typical complaints were that this children's novel is "unrealistic", does not have enough "action", and is often "boring". Teachers of the course report that they are still working with ways to pace the book with the other learning activities. In its seventeen short chapters, *Harry* seems no sooner to get students into the "story" than they are taken aside to analyze what they have read. Yet, most teachers feel that *Harry* is necessary to "set up" the philosophical problems dealt with in the course.

Another area of concern appears in question 14. A minority (35%) of the students found that they used outside of the course what they learned inside it. Here, of course, is the problem of learning transfer common to most academic courses. However, it is clear that transfer of learning from *Harry* did occur when students spoke, as they often did, of "arguments" with their siblings at home or with other students at school. And the episode in the novel with Dale, who is asked to salute the flag, though doing so opposes his religion, made a strong impression on many students who felt this was very applicable to their own lives today.

Students were invited to comment in several parts of the Student Evaluation questionnaire. Here are examples:

Q. 6. Were these discussions different from discussions you have been used to in school? If yes, how? (57% answered "yes").

- ... I never was taught to use philosophical reasoning before so I could never really talk the way I do in *Harry*.
- ... In a regular discussion if you say what you want to, you'll get sent to the principle (sic).
- ... They are more BORING.
- ... because you would have to think much harder than you usually do.
- ... Because they weren't stupid!
- ... I haven't had anything like this ever. I wish I have though.
- ... Because I never really talked to a teacher before.

- ... Because normally there is only one answer and you ask the teacher a question but now we were answering with our own opinions.
- ... Because we usually don't talk about thinking.
- ... Well, because what we say can start a new discussion.
- ... Yes, because there wasn't any right or wrong and everybody stated their opinions and they were very interesting.
- ... In other discussions we didn't go into so much depth and detail about the subject.
- ... We usually talk about parts of speech or commas or something....
- ... They had something more than just discussions of school work, they had something more to do with life.
- ... Well, everyone had something to say for a change and it was arguing.
- ... 1. The discussion about reasoning and types of sentences, because it was fun to decide if it was faulty or not and what type of sentence it was.
- ... 2. The discussions about difference of degree and difference of kind, and the one about apes and men stood out because of all the different opinions and reasons.

Q. 9. Please describe any of the written activities that stand out in your mind. This question produced what we regarded as 62 "positive" comments and 3 "negative" comments. Examples:

- ... Standardizing sentences, literal and figurative, syllogisms, brains, perfect school.
- ... Seeing films.
- ... I don't know anything.
- ... The thing about your mind.
- ... The paper with the carry-over relations stands out very vividly.
- ... None, but the turning around sentences was something new to me.
- ... The mind benders, those were fun because you really had to think them through.
- ... I liked drawing the brain.
- ... The papers that were on "all" sentences.
- ... We had to write if we thought we were asleep or awake and had to give a reason why.
- ... The one I took before this one.
- ... When the boy in the classroom's parents didn't want him to salute the flag.

- ... One where they gave you a few sentences and you were supposed to decide whether it was poor reasoning or good reasoning.

- ... I have *no* written activities that stand out in my mind that have to do with *Harry Stottlemeier*.

- ... Syllogisms test, drawing our minds, ideal school.

- ... Four possibilities, standardization, stereotypes, building on our thoughts, jumping to conclusions.

- ... Perceptions. I liked it because you couldn't be wrong.

Q. 10. Have you thought of any ideas or things that you had never thought of before, due to this course? Please explain. The questionnaire produced 41 "positive" comments and 11 "negative" comments. Examples:

- ... Yes, like if someone asks you if a thought can hurt and stuff like that.

- ... Yes, how to prove someone wrong by logic thinking, jumping to conclusions.

- ... No, because I never think anything about Harry except the non-explanation things.

- ... Yes, I have been reasoning wrong.

- ... Yes, we don't usually talk about your mind but I did in this course.

- ... Not really. Most of the things I had thought of before but never discussed.

- ... Yes, I say what I feel. I bring out my opinion more and more....

- ... No!

- ... Yes, other people have experiences, like dreams, just as you do.

- ... Most everything we talked about was new and I got some new side to a subject.

- ... No, because I sort of tuned out.

- ... I have. I never used to analyze a sentence.

- ... I learned about how to use drawings to show categories.

- ... Yes, like I never thought about the brain and the mind being separate or being together.

- ... Yes, my friends and me once had an argument about what is real and what is not.

- ... Yes, putting someone else in my place.

- ... Kind of contradicting, because now I know how to contradict and before I didn't.

- ... Yes, I had never thought if there (was) is anything behind the universe.

- ... Yes. It's too hard to write.

- ... Yes because everything that I learned and I am learning makes me use my thought differently.

Q. 11. What, if anything, did you learn about yourself that you didn't know before, in this course? We found 35 "positive" and 13 "negative" comments. Examples:

- ... That I should think for myself and not copy other people.

- ... How I think.

- ... Nothing.

- ... That there was really a Harry course.

- ... I don't think I learned anything about myself.

- ... I'm not sure.

- ... Nothing about myself but about other people.

- ... That I can trust myself.

- ... When I work hard I get the hang of it.

- ... That doctors haven't found a mind, and to use more logic.

- ... I thought only some grownups did this blah thing.

- ... I have a part of me I still don't know about myself and no one else knows it either.

- ... I don't think I learned anything I didn't know before about myself.

- ... If I put my mind to something, I can figure it out.

- ... I didn't know I could concentrate on one thing and have a strong opinion on it.

- ... I could be smarter and more logical than I thought I could be.

- ... I learned from group discussions you can't just say 'Oh I'll never smoke', that everyone does it.

The Student Evaluation Questionnaire revealed clear and strong values in the philosophical reasoning program. 77% found the class discussions "helpful and/or educational" (q. 5.) — an important finding in that participation in discussion is a central feature of the philosophical reasoning program. Students clearly recognized areas in which they felt they had improved. Question 12 asked, "... if Harry contributed to your improving in the following areas." Here is how students answered (in absolute numbers):

36 how to listen better

15 how to address others

86 how to back up your opinions

66 how to express your thoughts more effectively

68 how to think more logically

25 how to write better

Perhaps the "bottom line" in the Student Evaluation is in question 16, where students were essentially asked whether they thought *Harry Stottlemeier's Discovery* should be taught to future classes. 82% recommended teaching Harry at least once a week; 68% thought Harry should be taught at least three months of the year. A complete breakdown of these figures is given in the Summary Questionnaire.

Final Hypothesis

The Philosophical Reasoning Program appears to have significantly improved the thinking skills of students. It appears to have won acceptance by the students themselves as a valuable part of the elementary school curriculum.

Reflections

childhood ... education ... philosophy ...

Philosophy and Education

In this whole matter of philosophy and education, the great thing is that education should go into philosophy and not philosophy into education. Deciding first on a philosophy and then proceeding to teach in terms of it is about the worst thing that one can do. We should protest against it with unflinching energy. The reason is quite simple. When education is founded on a philosophy and bent to serve its purposes, education is pretty sure to be sectarian...I have no right to make my students so hate what I disbelieve that they will never know what it is. If I do, then I give clear proof that I am scared. I get no light on what I am doing. Philosophy should give light... In education, the springs of behavior are of minor importance while the ideals of conduct are of major importance. Knowledge of the former is worthwhile only as it may serve to support the latter. By itself it gives no guidance, for the springs of behavior never produce anything better than themselves. Because education begets the kind of faith it is, the discipline of the imagination is its ultimate fruitage. Psychology and the science of human nature can make plainer to us those springs of human behavior which have to be controlled if that discipline is to be effective. But they do not determine the end for which that control is sought. For the end is their control and not their indulgence. The end is so to rise above them that they can be viewed with increasing detachment and seen in their concrete operations in human society. It is there we learn what they really are, how they work, what they bring about, and what they are worth. It is there we find out the candles which burn babies. So far as we have disciplined our own imaginations and have seen what education is, we may, if we can have any faith at all, have the faith that we do not have to put the candles out in order to keep the baby from being burned. He will be burned as sure as fate if we cultivate his egotism instead of disciplining his imagination.

—from Frederick J.E. Woodbridge, *Contrasts in Education*, (New York: Teacher College Press, 1929) pp. 29-32.

Determining Children's Potential Thinking Levels

We must determine at least two developmental levels...

The first level can be called the *actual developmental level*, that is, the level of development of a child's mental functions that has been established as a result of certain already *completed* developmental cycles. When we determine a child's mental age by using tests, we are almost always dealing with the actual developmental level. In studies of children's mental development it is generally assumed that only those things that children can do on their own are indicative of mental abilities. We give children a battery of tests or a variety of tasks of varying degrees of difficulty, and we judge the extent of their mental development on the basis of how they solve them and at what level of difficulty. On the other hand, if we offer leading questions or show how the problem is to be solved and the child then solves it, or if the teacher initiates the solution and the child completes it or solves it in collaboration with other children — in short, if the child barely misses an independent solution of the problem — the solution is not regarded as indicative of his mental development. This "truth" was familiar and reinforced by common sense. Over a decade even the profoundest thinkers never questioned the assumption; they never entertained the notion that what children can do with the assistance of others might be in some sense even more indicative of their mental development than what they can do alone....

This difference... is what we call the *zone of proximal development*. It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

—L.S. Vygotsky, *Mind in Society*, (Cambridge: Harvard University Press, 1968) pp. 85-86.

The Child, The Teacher, and the Culture

I believe we are on the verge of developing a new kind of culture, one that is as much a departure in style from configurative cultures, as the institutionalization of configuration in orderly — and disorderly — change was a departure from the postfigurative style. I call this new style *prefigurative*, because in this new culture it will be the child — and not the parent and grandparent that represents what is to come....

Today, as we are coming to understand better the circular processes through which culture is developed and transmitted, we recognize that man's most human characteristic is not his ability to learn, which he shares with many other species, but his ability to teach and store what others have developed and taught him. Learning, which is based on human dependency, is relatively simple. But human capacities for creating elaborate teachable systems, for understanding and utilizing the resources of the natural worlds, and for governing society and creating imaginary worlds, all these are very complex. In the past, men relied on the least elaborate part of the circular system, the dependent learning by children, for continuity of transmission and for the embodiment of the new. Now, with our greater understanding of the process, we must cultivate the most flexible and complex part of the system — the behavior of adults. We must, in fact, teach ourselves how to alter adult behavior so that we can give up postfigurative upbringing, with its tolerated configurative components, and discover prefigurative ways of teaching and learning that will keep the future open. We must create new models for adults who can teach their children not what to learn, but how to learn and not what they should be committed to, but the value of commitment.

—Margaret Mead, *Culture and Commitment* (New York: Doubleday and Co., 1970) pp. 88-89, 92.

Kant on Avoiding Errors in Thinking

The following maxims of common human understanding do not properly come in here, as parts of the Critique of Taste, but yet they may serve to elucidate its fundamental propositions. They are: (1) to think for oneself; (2) to put ourselves in thought in the place of everyone else; (3) always to think consistently. The first is the maxim of *unprejudiced* thought; the second of *enlarged* thought; the third of *consecutive* thought. The first is the maxim of a never *passive* reason. The tendency to such passivity, and therefore to heteronomy of the reason, is called *prejudice*; and the greatest prejudice of all is to represent nature as not subject to the rules that the understanding places at its basis* by means of its own essential law, *i.e.*, is *superstition*.

Deliverance from superstition is called *enlightenment*, because, although this name belongs to deliverance from prejudices in general, yet superstition specially (*in sensu eminenti*) deserves to be called a prejudice. For the blindness in which superstition places us, which it even imposes on us as an obligation, makes the need of being guided by others, and the consequent passive state of our reason, peculiarly noticeable. As regards the second maxim of the mind, we are otherwise wont to call him limited (*borné*, the opposite of *enlarged*) whose talents attain to no great use (especially as regards intensity). But here we are not speaking of the faculty of cognition, but of the *mode of thought* which makes a purposive use thereof. However small may be the area or the degree to which a man's natural gifts reach, yet it indicates a man of *enlarged thought* if he disregards the subjective private conditions of his own judgment, by which so many others are confined, and reflects upon it from a *universal standpoint* (which he can only determine by placing himself at the standpoint of others). The third maxim, *viz.* that of *consecutive thought*, is the most difficult to attain, and can only be attained by the combination of both the former and after the constant observance of them has grown into a habit. We may say that the first of these maxims is the maxim of

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understanding, the second of judgment, and the third of reason.

—Immanuel Kant, *Critique of Judgment*, Analytic of the Sublime, par. 40.

Are Mental Categories Social in Nature?

The generalized way in which reality is reflected also undergoes radical restructuring....

It becomes possible to take assumptions as they are formulated in language and use them to make logical inferences, regardless of whether or not the content of the premise forms a part of personal experience. The relationship to logical reasoning that goes beyond immediate experience is radically restructured; we see the creation of the rudiments of discursive thinking, whose inferences become as compelling as those from direct, personal experience.

All these transformations result in changes in the basic structure of cognitive processes and result in an enormous expansion of experience and in the construction of a vastly broader world in which human beings begin to live. In addition to the sphere of personal experience, we see the appearance of the sphere of abstract general human experience as established in language and in the operations of discursive thinking. Human thought begins to rest on broad logical reasoning; the sphere of creative imagination takes shape, and this in turn vastly expands man's subjective world.

Finally, there are changes in self-awareness of the personality, which advances to the higher level of social awareness and assumes new capabilities for objective, categorical analysis of one's motivation, actions, intrinsic properties, and idiosyncracies. Thus a fact hitherto underrated by psychology becomes apparent: sociohistorical shifts not only introduce new content into the mental world of human beings; they also create new forms of activity and new structures of cognitive functioning. They advance human consciousness to new levels.

We see now the inaccuracy of the centuries-old notions in accordance with which the basic structures of perception, representation, reasoning, deduction, imagination, and self-awareness are fixed forms of spiritual life and remain unchanged under differing social conditions. The basic categories of human mental life can be understood as products of social history — they are subject to change when the basic forms of social practice are altered and thus are social in nature.

—A.R. Luria, *Cognitive Development: Its Cultural and Social Foundations* (Cambridge: Harvard University Press, 1976) pp. 162-164.

Thinking as the internalization of dialogue

In 1934 the brilliant Russian psychologist Vygotsky characterized the growth of thought processes as starting with a dialogue of speech and gesture between child and parent. Autonomous thinking, he said, begins at the stage when the child is first able to internalize these conversations and "run them off" himself. This is a typical sequence in the development of competence. So too in instruction. The narrative of teaching is of the order of Vygotsky's conversation. The next move in the development of competence is the internalization of the narrative and its "rules of generation" so that the child is now capable of running off the narrative on his own. The hypothetical mode in teaching, by encouraging the child to participate in "speaker's decisions," speeds this process along. Once internalization has occurred, the child is in a vastly improved position from several obvious points of view — notably that he is able to go beyond the information he has been given to generate additional ideas that either can be checked immediately from experience or can, at least, be used as a basis for formulating reasonable hypotheses.

—Jerome S. Bruner, *On Knowing* (Cambridge: The Belknap Press, 1962), pp. 89-90.

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On the importance of the concept of *meaning*

Vygotsky was "fascinated by the problem of 'free will' or 'autonomy'. For instance, there is a discussion in *Mind in Society* (pp 100 ff.) about the manner in which, in the course of child development, 'meaning' comes to dominate both 'objects' and 'actions.'

"This change Vygotsky interprets as showing how 'intentionality' takes over from 'causality,' as the untutored infant is transformed into the educated and autonomous adult. This is just one of the ways in which Vygotsky sought to transcend Dilthey's dichotomy between *Natur* and *Geist*, and so between 'physicalistic' and 'intentionalistic' modes of explanation."

—from Stephen Toulmin, "The Mozart of Psychology," in *The New York Review*, Vol. XXV, No. 14, September 28, 1978, p. 53, n.8.

Can classroom dialogue help children learn to read and write?

"Luria has argued that, in people raised within alphabetic cultures, reading and writing skills — though making use of the eyes — are 'represented' cerebrally in the auditory rather than in the visual region of the cortex. He has supported this hypothesis with evidence from both ends of life. On the one hand, with patients in Russian aphasia clinics, it was brain lesions in the auditory, not the visual cortex that were typically found to disrupt writing skills — though this was not true in the case of brain-damaged Chinese, educated within an ideographic culture.

"On the other hand, Russian school children learning to write from dictation

were observed to be 'talking out' the words to themselves as they wrote, under their breaths; and when they were prevented from doing so — e.g., by being required to hold their tongues between their teeth as they wrote — their number of errors at once increased sixfold. Either way (Luria has claimed) the understanding and production of *speech* appear, in alphabetic cultures at least, to form the primary linguistic skill. When reading or writing are acquired, subsequently, they form secondary skills, being learned in association with subvocal speech, committed to memory with its help, and cerebrally represented in close conjunction with the pre-existing auditory 'store' of speech.

"These ideas about children's use of subvocal speech as a tool in the mastery of intellectual skills pick up themes long familiar in the Western philosophical tradition. (Plato took quite seriously the suggestion that what we call 'thinking' may simply consist in 'talking to oneself.')

—from Stephen Toulmin, "The Mozart of Psychology," in *The New York Review*, Vol. XXV, No. 14, September 28, 1978, p. 53.

Thinking and Experience

Every experience involves a connection of doing or trying with something which is undergone in consequence. A separation of the active doing phase from the passive undergoing phase destroys the vital meaning of an experience. Thinking is the accurate and deliberate instituting of connections between what is done and its consequences.

It notes not only that they are connected, but the details of the connection. It makes connecting links explicit in the form of relationships. The stimulus to thinking is found when we wish to determine the significance of some act, performed or to be performed. Then we anticipate consequences. This implies that the situation as it stands is, either in fact or to us, incomplete and hence indeterminate. The projection of consequences means a proposed or tentative solution. To perfect this hypothesis, existing conditions have to be carefully scrutinized, and the implications of the hypothesis developed — an operation called reasoning. Then the suggested solution — the idea or theory — has to be tested by acting upon it. If it brings about certain consequences, certain determinate changes, in the world, it is accepted as valid. Otherwise it is modified, and another trial made. Thinking includes all of these steps — the sense of the problem, the observation of conditions, the formation and rational elaboration of a suggested conclusion, and the active experimental testing. While all thinking results in knowledge, ultimately the value of knowledge is subordinate to its use in thinking. For we live not in a settled and finished world, but in one which is going on, and where our main task is prospective, and where retrospect — and all knowledge as distinct from thought is retrospect — is of value in the solidity, security, and fertility it affords our dealings with the future.... To learn from experience is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence. Under such conditions, doing becomes a trying, an experiment with the world to find out what it is like, the undergoing becomes instruction — discovery of the connection of things.

Two conclusions important for education follow (1) Experience is primarily an active-passive affair; it is not primarily cognitive. But (2) the *measure of the value* of an experience lies in the perception of the relationships or continuities to which it leads.

—John Dewey, "The Theory of the Chicago Experiment," an article written by Dewey in 1934, and appearing as Appendix II of Katherine C. Mayhew and Anna C. Edwards, *The Dewey School* (New York: 1936).

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The Failure to Promote Values or to Promote Valuing

Lawrence Metcalf

Teachers have been told by philosophers of education that values are important and that every good teacher should build values in his students. The philosophers have not always communicated to teachers an understanding of what a value is, how it may be built, or of what the valuing process consists. Many teachers who act upon the urging of the philosophers approach the value problem as if the solution were a matter of inculcating the "proper" attitudes. The lack of a distinction between an attitude and a value accounts in large part for our failure to build a curriculum oriented around values and valuing.

A common practice of those teachers who confuse attitude with value is to list the traits that they want to inculcate, instill, and to stamp in. One usually finds on any such list honesty, loyalty, kind-

ness, cooperation, independence, self-reliance, spirituality, respect, dignity, adaptability, creativeness, and the like. The building of a favorable attitude toward, and it is assumed a valuing of, honesty often takes the form of rewarding the child when he is thought to be honest, and punishing him when he is thought to be dishonest. This approach sometimes includes the attempt by the teacher to set good examples although every adult finds it impossible always to be completely honest in all his dealings with children and other adults.

When we teach high school students that they should always be honest, loyal, kind, truthful, polite, generous, cooperative, self-reliant, obedient, and thoughtful we are implying that all is right with the world as long as people learn to be good. At least we are implying that morality is simply a matter of one's being good rather than bad. Such an approach to the curriculum is likely to leave out of moral education any conscious attempt to face students with choices between good and good. Yet these are the very choices which involve morality. When a wife asks her husband for an opinion of her new hat, should he be truthful or kind? Sometimes we give slighting recognition to this kind of value problem when we say that the choice is between the lesser of two evils. It would be just as accurate to say that we choose the greater of two goods. And in every case the judgment as to what constitutes the greater good is found in the consequences of our choice. The mere inculcation of proper attitudes toward honesty and the like may make this choice more difficult instead of easier.

We often find that it seems moral to be less than completely honest. This need for occasional dishonesty helps to explain why the common and traditional approach to moral education often falls short of its objectives. Even when teachers succeed in creating in their students a taste or preference for honesty as opposed to dishonesty, they have not succeeded necessarily in creating students capable of moral responsibility. A morally responsible agent is able to choose reflectively among conflicting attitudes and values. It is our failure to build the habit of the reflectively-made choice which largely explains the lack of

a democratic value orientation in the high school curriculum of today.

A more adequate treatment of the moral problem would provide students with opportunities to choose reflectively among the attitudes and values which they hold. They might be faced, for example, with many situations involving choices between honesty and kindness. They cannot, and this we do know, choose to be both honest and kind in all situations. This opportunity to make choices between good and good, and to make them reflectively, is most likely to be present in a curriculum that emphasizes the study of problems and related controversial issues. This emphasis upon problems and issues need not wait for the development of a core curriculum. In fact, a more reflective approach to traditional subject matter may facilitate reorganization of the curriculum.

A common sense observation—and we must always be cautious and careful in our use of common sense—suggests the futility of teaching a child that he should always be honest and kind. Let us suppose that Mr. & Mrs. Brown and their small son have been asked to dinner by the Joneses. Mrs. Jones may ask the son, Johnny, how he likes the soup. Johnny, if he is honest in this situation, may say that it is the worst he has ever tasted. This is anything but a kind and polite answer, and it is very probably the very answer which none of the adults want him to make. If Johnny has been “well-taught” in his attitudes toward honesty and kindness, and if he has never faced a similar situation before, he can hardly know what to say without first reflecting upon his problem. Should he be honest or kind, and how is he to determine which to be?

Many adults would solve Johnny's problem by adding sophistication to the list of desirable and to be inculcated traits. Johnny, in this situation, should murmur something trite, and perhaps unintelligible, and hope that he is not offered a second serving. The learning of this kind of sophistication hides from view the fact that when Johnny is commended for his courtesy he is also rewarded for his dishonesty.

Adults experience the same difficulty in making their moral choices. A few years ago a secretary sought advice from

a newspaper woman who was writing a weekly column of counsel for her readers. The secretary wrote that she was working for a man for whom she had developed strong feelings of loyalty. He had raised her salary several times, provided liberal vacations, set up good working conditions, and had even helped to finance the medical care of her aged mother. The secretary, in sharing many of his business secrets, had learned that her employer was evading a substantial part of his income tax. She wanted to know whether she should be honest, and report his crime to the government, or whether she should be loyal and keep her mouth shut. The advice of the columnist was that a moral person is always honest *and* loyal!

The usual procedure for a person in this kind of situation is to decide in some way what he wants to do, and then to rationalize his decision by describing it as either honest or loyal. He will never rationalize with an appeal to dishonesty or disloyalty. It is thus that a certain kind of moral training tends to produce self-deception rather than moral responsibility in the learner.

The student who cheats on an examination may say to himself that one should open the door when opportunity knocks and that it is foolish to pass up a good thing. The employer who lays off his workers may tell himself that everyone has to look after himself. He will, of course, not hesitate to accept a loan from the Reconstruction Finance Corporation even though he occasionally denounces government bureaus which perform economic functions.

This kind of self-deception and confusion will always exist in the area of values as long as we teach that the moral problem involves choices between good and evil rather than between good and good. Neither is it an adequate solution to indoctrinate against self-deception. Teaching people how to choose among competing goods (values) may not reduce self-deception but such teaching would make self-deception less necessary. The Sunday School and the public school too frequently supply no answer to morality other than the answer of a correct motor response. People who merely learn perceptually a set of attitudes rather than a process of valuing must always decide in some

unreflective manner what to do when values are in conflict.

These value conflicts (involving choices between good and good) arise within groups as well as within individuals. In fact, the conflicts often exist within individuals because those conflicts are resident in the group culture. A curriculum which passed on the cultural heritage without refinement and selection would merely present the learner with a bundle of conflicts. A curriculum which passed on a selected and refined part of the cultural heritage would still be inadequate because conflicts between good and good would always arise within that purified heritage. The latter is the kind of value conflict which arises when a man wants to be both honest and kind in a situation that will not permit him to be both. A more adequate approach would supplement refinement and selection with considerable attention to the problem of how to make choices when decency conflicts with decency. In terms of learning theory it is not going too far to say that any value such as honesty cannot acquire a clear meaning except as it is brought into sharp conflict with a value such as kindness.

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Whether the conflict is between individuals, between groups, or within individuals, we find that goods are in controversy and conflict; that values are competing for our acceptance; that choices have to be made. The values in conflict acquire more clarity of meaning as we reflectively consider alternative consequences. This facing of conflicting sets of consequences is made possible by a curriculum which gives major recognition to the solving of problems and the understanding of controversial issues.

In these situations of value conflict there are at least two positions as to what

constitutes good behavior. One position says that the good person is one who makes the right decision, who does the proper thing. The other position says that the good person is one who makes his decision reflectively. According to this latter view, a value is good not so much in terms of its specific forness or againstness, but in terms of how it is acquired and held. This position recognizes that ends and means are continuous with one another, and that a democratic end can be achieved only through the democratic means of reflective thought. Democratic morality rests upon the process of reflection.

Attitudes, Beliefs, and the Building of Values

We pick up from the culture many attitudes and beliefs. Values, however, are not acquired in this way. Values are built as we choose reflectively from the attitudes we have unreflectively acquired. These attitudes are bound to have an unreflective origin even though the school would avoid their inculcation. It is humanly impossible for us to reflect in advance of all that we acquire as belief or attitude.

Attitudes are examined reflectively when we test beliefs involved in and related to our attitudes. Beliefs, although different from, are related to attitudes. Our attitude toward tomato juice, for example, rests in part upon what we believe to be true of tomato juice. As these beliefs are reflectively examined our attitude approaches the character of a value.

In short, values are built as attitudes are clarified through an examination of beliefs. We do not build values through precept, example, ceremony, practice, or ritual. The process of valuing is more reflective than the memorization of a preamble, or the taking of an oath. The person who pledges allegiance may be no more loyal than the person who does not. Neither does valuing result alone or necessarily from attendance in church, or from the daily reading of the Bible. These practices fall largely in the area of attitude inculcation.

Johnny Brown has acquired in the usual way the usual attitudes toward honesty and kindness. He is for politeness and against rudeness, for honesty and against dishonesty. His opportunity for value-building arises when

his attitude toward honesty conflicts with his attitude toward kindness. Whether he can or will handle this conflict reflectively depends in part upon the nature of his previous learning. If a substantial part of his previous learning is conceptual, and if it includes the habit and the valuing of reflection, then, further value-building may take place.

In facing his problem reflectively, he will try to predict the consequences of his behavior in advance of behaving. He will try to figure out the consequences of telling the truth as contrasted with the consequences of not telling the truth. His predictions will take the form of if-then propositions.

The elaboration of hypotheses in the shape of if-then propositions is made possible for the learner whose learning has been conceptual as well as motor perceptual. The concepts come from past reflection as do many of the data used in testing the truth of the propositions. That is, the reflective approach to value problems includes both the formulation of propositions and the use of evidence in their testing. Is it true that the telling of the truth will antagonize the Joneses? What are some likely consequences of such antagonism? Perhaps the Joneses will not be hurt or angry and will simply dismiss the incident as childish. Some testing of alternative and projected consequences must take place if Johnny is to know what he is doing before he does it.

There is a difference between saying that one should not tell the truth, and saying that if one tells the truth then Mrs. Jones will have her feelings hurt. The first statement is attitudinal in its form, and it is neither true nor false. The second statement is propositional in form, and it is either true or false. One can test the second statement by reference to publicly available data. The first statement suggests that we act irrespective of consequences while the second statement suggests that we take consequences into account.

It may be objected that the formulation and testing of if-then propositions does not tell Johnny which set of consequences to prefer. This objection brings us to the question of whether we can have a full-blown science of values. Certainly the testing of propositions can be scientific in quality. What about the choice that is made between two sets of

consequences? Does the scientific method provide an answer to this kind of choice? One set of consequences cannot be validated over another set of consequences in any ultimate sense but consequences which are immediate can be related to those which are remote. If we get these consequences, then, what else do we get? Any proposition which deals with further consequences can be tested in the same way as any other proposition. But no matter how far the consequences are projected Johnny must decide what to do, and when this decision is made the projection of consequences has, for the moment, come to a conclusion. The scientific method cannot be used for determining ultimate value any more than it can be used to determine ultimate truth.

When Johnny decides to be kind, let us say, rather than truthful, how is his decision different from one made without the prediction and verification of consequences? The chief difference is that he sees more clearly what he is about. He sees more clearly what he is likely to get. He may even see more clearly what it is that he wants. He can hardly know what he wants if he does not know the consequences of wanting to be kind instead of truthful. The projection of consequences may help us to decide what we want. It is here that we find the difference between an attitude and a value. An attitude is an unexamined, and, perhaps, an inculcated preference while a value stands for an examined and *planned for* preference.



When we use the reflective approach to values in our teaching, we seek to carry on operations which are both free and experimental. We try to find out through free and permissive discussion, and similar techniques, what our students believe and have attitudes toward. We try to find out what is on their mind, what it is that bothers them, and what is confusing to them. We try to help them to see more clearly the nature of the conflicts among and within them. We try to help them to project or to anticipate consequences of acting upon certain beliefs and attitudes. We try to help them to find data which they can use in testing the probable truth or falsity of what they believe to be likely conse-

quences of doing this rather than that. The central emphasis is upon helping them as best we can to see more clearly what they believe, what they value, and what they are doing as a consequence of acting upon certain premises or assumptions. As alternatives become more clear, they are in a position to *choose* beliefs and values. In the absence of these clearly conceived alternatives they are stuck with the valueless content of mixed and inconsistent attitudes acquired willy-nilly from a culture that does not know where it is going.

Building Democratic Values

It has been said that we cannot build democratic values in a school that fails to practice democracy. This is true as far as it goes and provided that practice is not given a mechanistic meaning. The statement that we must live democratically in order to learn the meaning of democracy can become a cliché leading to serious misconception. We know that people in concentration camps sometimes learn to value democracy. Like the person who values fresh air when he emerges from a dank mine many of us value freedom only after we have had a taste of tyranny. Nevertheless, we are on sound ground when we try to build a valuing of freedom in the presence of freedom. In the schools we want students to feel free to express their attitudes for we could hardly be successful in our attempts to build values if we were ignorant of the attitudes we were trying to clarify. A permissive and reflective atmosphere is essential to the clarification of attitudes and the testing of beliefs. We cannot lose sight of the fact that the democratic school is both permissive and experimental. Democratic values by their very nature cannot be imposed. They must arise from the thinking of the learner, and there is no known technique by which teachers can make students think.

We defeat our democratic purposes when we list certain values as democratic and then proceed to indoctrinate them. Students may have their attitudes determined for them, or they may think their way toward a value structure. As Plato once said, we are slaves who serve the purposes of other men. In a democracy we are free to participate in the creation of the values by

which we intend to live. A non-participatory approach to values means that we merely acquire attitudes each of which is held as an absolute. When one absolute conflicts with another we are lost for decision. Sometimes an attitude is held so absolutely that we oppose with witch-hunting any attempt to make it an object of intelligent criticism.

The high school curriculum can promote the learning of values and valuing as it opens to criticism those many attitudes which are usually protected, sacred, and unreflectively held. Our culture is shot through with touchy spots within which reflective thought is regarded as subversive activity. I am reminded of the friend who said that his community regarded him as a socialist because his class was studying social problems. There is in this country a serious opposition to the promotion of any kind of learning which threatens to make insecure the usual ways of doing business. It is not without irony that there is this opposition to reflective learning inside a culture that is considered by many one of the last fortresses of freedom.

These are sorry days for those who value freedom, and the attempt to build democratic values is risky business. We have now carried our attitude toward the correct motor response to the extent of regarding a loyalty oath as some evidence for a person's loyalty. Those who refuse in the name of freedom to sign such oaths on the ground that their use represents an attempt to "scare off" those who would deal with controversial issues in the classroom are rashly labelled disloyal. Yet if there is anything at all in the theory we have discussed here, there can be no building of loyalty as a value when teachers and students feel inhibited and restrained whenever they study issues that are "hot" and problems that are "current". It will may be that those who worry most about the loyalty of the teacher and the maturity of the student are those whose unexamined policies could not stand the test and scrutiny of rigorously reflective thought. There is no curricular practice more undemocratic than that of closing off reflection in any area of living.

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A Philosophy for Children Workshop for Chicago Teachers of the Gifted.

George Dalin

During the 1978 winter quarter at De Paul University, a ten consecutive week workshop on the Philosophy for Children program was held for Chicago Public School teachers of gifted elementary school pupils. Twenty-nine teachers and one coordinator, selected by the director of gifted programs, began the workshop and twenty-five teachers successfully completed the workshop. All of the workshop participants were certificated elementary school teachers who, in addition to their regular classroom teaching, taught part time gifted programs. A majority of the teachers held advanced degrees; however, very few of them had any university or college training in philosophy. A cross section of teachers throughout the Chicago school system was represented.

The workshop participants were given various options in which to receive credit for the after school three-hour sessions. Many of the teacher opted for advanced salary lane placement credit for the Chicago Public Schools' curriculum department. Some of the teachers preferred a one hundred dollar stipend. A few of the teachers decided to register for graduate credit; these teachers were also given a one hundred dollar stipend to defray the cost of the graduate level credit.

In charting the instructional course for the workshop, the director of gifted programs, his staff, and I planned a course outline, which was approved by the deputy superintendent of curriculum, that consisted of reviewing the Philosophy for Children materials, of viewing the Institute's video tapes, and

of developing classroom instructional strategies. Since many of the workshop participants had little training in syllogistic reasoning, they were introduced to some basic logical concepts. The teachers were assigned to read *Harry Stottlemeier's Discovery*, *Lisa* (Chapters 1 and 2), the instructional manuals for both novels, *Philosophy in the Classroom*, and *Logic: The Art of Defining and Reasoning* by John Oesterle. Written assignments consisted of exercises from the logic text, a lesson plan on one of the philosophical topics from *Harry*, and a short paper on the nature and value of philosophy for children.

Each workshop session was divided into three parts. The first part focused on the novel (*Harry*) and the instructional manual; exercises were selected from the manual and reviewed by the entire

group. The second part of each session was devoted to viewing the Institute's video tapes. The final part was spent on the basic concepts of logic. Eight of the ten workshop sessions were devoted to *Harry Stottlemeier's Discovery* and two sessions on *Lisa*.

How successful the workshop was is what I will now discuss. It should be noted that I conducted the workshop without an assistant, and it was my first experience using the Institute's materials with classroom teachers. My course outline had to be revised from time to time. Sometimes I had success in getting teachers to be critical in their thinking; other times I fell flat on my face. However, the teachers and I still managed to accomplish some of the objectives of the workshop.

When the teachers and I discussed the Philosophy for Children materials, we engaged in various activities. Many of the exercises in the *Harry* instructional manual lend themselves to various instructional strategies. Many of the teachers indicated that role-playing on their part would help them to understand the philosophical concepts from a child's point of view. This strategy, when used in the workshop, seemed to get many of the teachers involved in the discussion. Another strategy that proved successful was when small groups of teachers presented a lesson to the rest of the class. A majority of the teachers, though, were more comfortable when I led the discussions on logic. Some of the teachers admitted to the rest of the workshop participants that they had a lifelong difficulty with logical reasoning. However, this did not prevent some of these teachers from providing valuable contributions on the difficulties they had in understanding the material and then teaching the material to their class when the time would arrive for them to do so.

What was exciting to me was that some of the teachers went back to their classrooms and tried some of the *Harry* material with their students. These few teachers shared their experiences with the rest of us during the workshop session. One teacher taped her pupils' responses to Chapter One of *Harry*; she then dittoed the responses and gave each teacher a copy. The teachers greatly appreciated this teacher's effort. It gave them evidence that demonstrated that

inner city pupils were certainly capable of understanding the material. It should be noted that the teachers were not required to begin the Philosophy for Children program until they had completed the ten week workshop.

At first, the teachers were in doubt as to what constituted a philosophical discussion. After they had read the chapter on philosophical discussion from *Philosophy in the Classroom*, the teachers had difficulty in transferring what they read to the workshop discussions. It seemed to me at the beginning of the workshop that many of the teachers wanted to find a method that would guarantee them that they could distinguish between non-philosophical discussion and philosophical discussion. I used Professor Clyde Evans' paper, "Philosophy With Children: Some Experiences and Some Reflections" to explain some of the basic skills children would need for a philosophical discussion. Professor Evans' paper helped the teachers to understand the basic concepts. When the teachers re-read the chapter on philosophical discussion in Professor Lipman's book, they were able to grasp the basics of a philosophical discussion.

In the early sessions of the workshop, the pervasive attitude among the teachers was that one belief or opinion was just as good as the next belief or opinion. At times some teachers were claiming that philosophers simply engaged in a confusing game of semantics or logic chopping. To counter this attitude, I drew their attention to what Harry and his friends were doing in the novel. I explained and illustrated that philosophical analysis and methodology consisted of clarity and precision and the posing of questions that would probe the topic at hand.

Part of each workshop concentrated on teaching strategies. I decided to use the Institute's videotapes on classroom instruction of the Philosophy for Children program. These videotapes were made in classrooms where the Philosophy for Children program was implemented. The workshop participants used a teacher rating sheet, prepared by the Institute, each time they viewed a videotape. The rating sheet, however, was used by some teachers as a means of finding fault with the teacher's performance. I had to emphasize to the

teachers that the videotapes were to be viewed and analyzed with great care. The object of viewing, then, was not finding fault in teaching styles but to see how the pupils were responding to *Harry Stottlemeier's Discovery* and the exercises from the manual. After a few videotapes I made the rating sheet an optional exercise which was favorably received by the teachers.

The point I want to make about the videotapes is that they are, I believe, an integral part of the Philosophy for Children workshop. Some of the teachers demonstrate excellent rapport with the children. This is important for the success of the program. Also the videotapes, for the most part, show that pupils at various achievement levels have the ability to grasp the central issues in the *Harry* and *Lisa* novels. We also see that many of the pupils share their experiences and thoughts with their peers. The important factor about showing these videotapes, then, is to tell the viewers to suspend their judgment about teachers' idiosyncrasies and to concentrate on the discussion that is taking place.

I must admit that I sometimes turned some of the workshop sessions into torture sessions for the teachers. I believe Charles Sanders Peirce once claimed (perhaps with tongue in cheek), "Few persons care to study logic, because everybody conceives himself to be proficient enough in the art of reasoning already." I should have taken this observation by Peirce into account. The first mistake I made was to assign an Aristotelian type of logic text. (Perhaps subconsciously I wanted to get back at someone after my undergraduate experience with such a text). Many of the teachers were in agony when they attempted to grapple with the "Distinctions Preliminary to the Categories" chapter. I told the teachers that this type of additional work in logic would aid them; they, on the other hand, thought this additional work was the work of an evil genie. To put it simply, I wasted their time.

When I received the "Thinking About Thinking" filmstrip series, I found that the logic presented on the filmstrip was understandable for all the teachers. All of the teachers were able to understand the basic concepts, and the

worksheets contained in the kit were intelligible to all. The filmstrip series and the exercises in the two manuals are more than enough to cover the logic needed to teach the program. A college text on logic is not necessary to cover the basic logic in both novels.

At the last workshop session, the teachers were given a brief questionnaire, prepared by the director of gifted programs, on the effectiveness of the workshop. About 70 percent of the teachers rated the workshop sessions as "good" or "very good". Twenty-six percent of the respondents rated the workshop as "fair". Four percent rated the sessions as "excellent". When they were asked what was the major value of the workshop various answers were given. Many of the teachers (90%) thought that the Philosophy for Children materials were excellent. Some of the respondents (40%) believed that their classroom teaching techniques would change for the better. A majority

of the respondents (90%) felt that learning about the basic concepts of logic and the use of philosophical discussion would help them to implement the program at their home schools. One teacher wrote that she would no longer accept "stock answers" from her pupils.

Various suggestions were made by the workshop participants on how to improve the Philosophy for Children program workshop. Some of the teachers (35%) wanted me to simplify the college text logic. A few (20%) wanted to discuss more of the exercises from the two instructional manuals. Some of the teachers (30%) wanted more role-playing in order to get more teachers involved in the workshop discussions. Another suggestion made by some teachers (25%) was to reduce the amount of required reading. Finally, twenty-five percent of the respondents wanted to spend more time discussing the *Harry* novel and *Philosophy in the Classroom*.

In summary, the ten-week workshop was, I believe, a success. This evaluation on my part is illustrated by the teachers' willingness to participate in a program that has much to offer gifted children. Practically all the teachers demonstrated a positive attitude toward the program. This is not to say it was always smooth sailing for me and the teachers. We had our moments of frustration, but we also had some moments where we were able to get to the philosophical issues in both novels. The eagerness of some teachers to get some of the *Harry* material into their regular classroom instruction was exciting. These teachers helped to generate interest in the other teachers about the program. How the teachers implement the program and carry out the program on a daily basis with pupils remains to be seen. All indications of success seem to me in the offing with this first group of Chicago teachers of the gifted who participated in the workshop.



CHILDREN ENCOUNTER IDEAS

Philosophy in Childhood

Were it even without the comparatively frequent recurrence of exalted moments breaking our routine, we could, all of us, be conscious of what is going on in the thinker's mind by recalling our childhood. All children under nine or ten years of age are poets and philosophers. They pretend to live with the rest of us, and the rest of us imagine that we influence them so that their lives are only a reflection of our own. But, as a matter of fact, they are as self-contained as cats and as continuously attentive to the magical charm of what they see inwardly. Their mental wealth is extraordinary; only the greatest artists or poets, whose resemblance to children is a banal certainty, can give us some idea of it. A golden-haired little fellow playing with his blocks in the garden may be conscious all the time of the sunset while pretending not to look at it. "Come along!" the nurse said to Felicité de la Memmais, eight years old, "you have looked long enough at those waves and everybody is going away." The answer

*"Ils regardent ce que je regarde, mais ils ne voient pas ce que je vois,"*¹ was no brag, but merely a plea to stay on. Who can tell what the four Bronte tots saw or did not see in the moors through which, day after day, they rambled holding hands? Cannot you remember looking for long spells at a mere patch of red on a sheet of paper or in your little paint-box? Most intelligent children, as was the case with Newman, have the philosopher's doubts about the existence of the world. You see them looking curiously at a stone; you think "children are so funny" and all the time they are wondering if the stone may not be eternal, and what it is to be eternal. Have I not heard a little girl of nine interrupt a conversation of professors who were talking about nothing to ask the astounding question: "Father, what is beauty? What makes it?"

This superiority of intellect persists until the child's imitateness begins to work from the outside in. When Jack begins to copy Daddy's way of shaking his head or shrugging his shoulders, his poor little soul also begins to be satisfied with dismissing questions. Pretty soon this magnificent tide of interest which fills the child's soul will ebb away to leave it dry and arid. There may be occasional returns of it. All school-boys, writing an essay for their teacher, are visited by thoughts which they realize would be what is called literature, but they do not dare to write them down, and ill-treated inspiration, in its turn, does not dare to return.

1. *"They watch what I am watching, but they do not see what I see."*

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Thinking and Literacy

Jane Roland Martin

I cannot help feeling, Phaedrus, that writing is unfortunately like painting; for the creations of the painter have the attitude of life, and yet if you ask them a question they preserve a solemn silence. And the same may be said of speeches. You would imagine that they had intelligence, but if you want to know anything and put a question to one of them, the speaker always gives one unvarying answer. And when they have been once written down they are tumbled about anywhere among those who may or may not understand them, and know not to whom they should reply, to whom not: and, if they are maltreated or abused, they have no parent to protect them; and they cannot protect or defend themselves.

So spoke Socrates, the philosopher who for centuries has served as our model of rational thought.¹ Today Socrates' position is in jeopardy. You see, Socrates engaged in *oral* philosophical discussion. His dialogues with his students come down to us in written form thanks to Plato. The dominant belief today, however, is that thinking and literacy are inextricably bound together.²

According to the psychologists, literacy transforms a person's cognitive capacities; indeed, it leads to forms of thought which, because they are abstract, are considered to be higher.

But their view of the relationship of thinking to literacy does not stop there. Written language is taken to be a precondition of abstract thought as well as its generator. Thus, the oral cast of mind is said to constitute "the chief obstacle to the classification of experience, to the rearrangement in sequence of cause and effect, to the use of analysis, and to scientific rationalism."³ It seems that oral and written statements differ radically: we deem the former to be successful if they are understood, for their primary function is interpersonal; we deem the latter to be successful if they appeal to premises and to rules of

logic, for their primary function is interpersonal; we deem the latter to be successful if they appeal to premises and to rules of logic, for their primary function is getting it right.⁴

The object of this essay is to challenge the thesis — henceforth the Dependency Thesis — that thinking is dependent on literacy. I will explore, first, the implications for that thesis of the very existence of Socrates and will then consider the claim, made by many teachers of English, that learning to write just is learning to think. This will be followed by an examination of the claim made by the psychologists that it is not the act of writing, but written language itself, which binds thinking to literacy. My discussion of the relationship between written language and thinking will lead

of presuppositions and implications; if only written statements could be used to examine problems and produce new knowledge; if the latter alone were capable of being counterintuitive while the former of necessity were congruent with dogma — the life and death of Socrates would be unintelligible. Socrates was a philosopher and a gadfly and was put to death for it. Yet his thinking was done on his feet: it was exhibited not in the composition of essays, but in the give and take of conversation.

Scholars have shown that the Greece of Socrates was in the process of becoming a literate culture.⁶ They know that Socrates himself was able to read and write. Ought we not to assume, then, that Socrates was the thinker he was *because he was literate*? Granted, the ex-

In the Greece of Socrates oral communication apparently was still dominant. There were books, and for over three centuries an alphabet; however, there is good reason to believe that words were not composed for people to read but for them to listen to. In the dialogue from which our opening quotation was taken, Socrates does not read for himself the speech which Phaedrus carries on a roll hidden in his cloak, but asks Phaedrus to read it to him. Phaedrus, in turn, has heard it read repeatedly. Thus, whether Socrates was fluent in both reading and writing by modern standards is a real question.

It is difficult for us to realize that Socrates was steeped in a culture in which the written word did not have the monopoly over intellectual life it has today. But suppose for the sake of argument that Socrates was as fluent a reader and writer as the experts today claim children must be if they are to explore problems, draw out implications, analyze, classify and in general think along abstract lines. We must still differentiate between individuals in preliterate or oral cultures and individuals who are non-readers and non-writers — or at least unaccomplished readers and writers — in a literate culture such as ours. Our culture is dominated by the written word and permeated by abstract thought. It provides an environment, therefore, in which the kind of thinking associated with literacy can be acquired *whether or not an individual is able to read or write*.



to a consideration of the various kinds of thinking. Once it is recognized that the Dependency Thesis forces a single, narrow mold on human thought, the dangerous implications of that thesis for education in thinking will become apparent. In the final section of this essay these will be explored and suggestions for a more fruitful approach to thinking as an aim of education will be made.

1. The Case of Socrates

Unless we are to suppose that Socrates was a closet essayist who memorized written dialogues with his students for presentation in the marketplace, we must reject the invidious distinction drawn by psychologists such as David Olson between utterances and texts.⁵ If that distinction were valid — if oral statements could not withstand analysis

istence of Socrates makes the distinction between oral and written statements untenable. Still, his existence would seem to be compatible with the thesis that literacy and thinking are inextricably bound together.

Socrates poses no problem for the Dependency Thesis so long as we assume that he became literate *before* he began his philosophizing. It is not clear that we can legitimately assume this, however. Scholars believe that in his day the teaching of reading and writing began in adolescence, but we do not know if Socrates' own education in the 2Rs began then, let alone when his philosophizing began. We must also assume that his literacy was roughly equivalent to literacy as we know it today, and it is not clear that we can legitimately do so.

2. Writing and Thinking

Psychologists are not the only advocates of the Dependency Thesis. Teachers of English repeatedly tell us that writing and thinking are inseparable and that learning to write is learning to think.⁷ Let us, therefore, bracket the case of Socrates and examine that complex activity we call "writing" to see which of its many components can plausibly be linked to thinking.

Grand claims have been made for handwriting. It has been said that the ability to write italic script will give Johnny "the identity and self-confidence he seeks so desperately to find in an increasingly mechanistic, computerized, automated society."⁸ Italic writing has also been linked to good

taste in prose and has been called a rational verbal skill.⁹ Yet the purported effects on personality of a fine Italian hand have not been documented, and to call any sort of handwriting a *rational* skill is grossly misleading for handwriting is a neutral skill which can be used in the service of both rationality and irrationality. One method of handwriting may be better than another for its visual beauty, its legibility or its ease of learning, but handwriting is still handwriting: a tool to use in expressing oneself and in communicating with others.

Many people have jumped on the handwriting bandwagon thinking that they were supporting education for critical thinking, logical reasoning and scientific method or even a new humanism. But no amount of training in handwriting will make the world a better place or us better thinkers. Those on the bandwagon have rightly called handwriting a *trapping* of literacy without realizing that trappings are ornamental, not essential. We have all known highly literate people equipped with crabbed scrawls, and a look at the manuscripts in the British Museum is enough to convince one that logical lions can have abominable penmanship.

Skill in handwriting is essential neither for literacy nor for rational, abstract thought. Nor can we count on proficiency in handwriting to reproduce literacy or to raise the level of our thought processes. Consider how many people there are with a beautiful hand and nothing to say! Let their existence be a warning to us all that handwriting instruction can too easily become the opiate of our children, occupying their time and their minds and making both them and us believe that they are learning much more than they really are! In truth, this aspect of writing is separable from literacy and can be detached from thinking.

When we are confronted with children who do not handwrite fluently and legibly we need to remember that an education in handwriting can be bypassed without sacrificing either literacy or rational thought. Indeed, if our interest is in fostering good thinking, we owe it to those children who have difficulty learning to handwrite to explore alternative tools for recording and communicating their ideas. We owe it to

them, for instance, to provide opportunities to learn to typewrite. We tend to assume that handwriting is essential for all to learn whereas typing is a frill and, furthermore, that handwriting must be learned first. Yet one can learn to type before learning to handwrite and, although typing is not essential for all to learn, it is a skill which can have quite as much value for the possessor as handwriting can, which is not to say that either one provides a magical access to the world of rational, abstract thought.

It will be said that handwriting can be bypassed in an education for thinking because there is an alternative tool for recording one's ideas, namely typewriting, but that both typewriting and handwriting demand that we be able to spell. However, while the performance of these skills requires that statements be inscribed on physical material for others to read, it does not require that the author of the statements be adept at spelling. For one thing, we can tolerate a good many misspelled words in our reading of texts, perhaps more than we realize. The objections people have to misspelled words stem less from the difficulties they pose for comprehension than from the failure to distinguish trapping from essentials. Spelling, like handwriting, is a trapping of literacy. But whereas in our calmer moments we recognize that one can be literate without a legible hand, we do not extend such charity to the misspeller. When "i" and "e" are reversed, when single "r" is doubled and double "c" is not, we never stop to find out if an author can read fluently and write coherently, let alone whether ideas are being explored and implications drawn; we simply dismiss text and author as unworthy of attention.

Misspelling is an interesting phenomenon. Years ago, as a fifth and sixth grade teacher, I became convinced that some children had a knack for spelling and others did not, and that the ability to spell had nothing to do with their powers of thought. Yet to this day I feel humiliated by my own spelling mistakes and embarrassed by those of others. Surely I am not the only one to cringe in the face of a misspelled word. The reason for this gut reaction is obvious enough: we judge people's literacy by their spelling — or at least their illiteracy

by the misspelling — and we judge their intelligence and social worth by their literacy.¹⁰ "Is it possible that the author of this communicate is dumb?" I ask before recalling that spelling is neither necessary nor sufficient for learning and rational thought, but is simply a tool for aiding communication.

As I have said, we can understand misspelled texts. Moreover, if one's spelling is so bad that communication is hampered, it is always possible to dictate and let someone else transcribe what one has to say. A fifth grader whose name really was Johnny and whose spelling problems were legion used to insist that he did not need to learn to spell since when he grew up a secretary would do his spelling for him. I argued, cajoled and browbeat him to drill on his twenty words a week, but of course Johnny was right. If he does not now have a secretary, he can turn to family or friends or use telephones and tapes. For him, although certainly not for all my fifth and sixth graders, learning to spell was filled with frustration and misery: he simply could not do it without sacrifice on his part and that of his teachers which was out of all proportion to the benefits which might accrue.

If we judge people by their spelling, we judge them even more by their grammar. Yet how essential is good grammar for rational thought? Surely a person can reason logically while splitting infinitives and can tease out the presuppositions and implications of statements while saying, "Me and him went to the movies." A child who does not realize that "John hit Mary" entails "Mary was hit by John" will have limited ability to draw logical conclusions. But this kind of knowledge is not at issue when people say that learning to write is learning to think. At some very deep level grammar and thinking merge. But at that level — inference — an education about gerunds, subordinate clauses and the parts of speech is irrelevant. Just as brilliant thinkers can have an illegible hand and a penchant for misspelled words, so too can they dangle participles and misuse the subjunctive.

Thinking can be detached from handwriting, spelling and grammar and it should be lest we fill up the curriculum of the early years with these subjects in the belief that children are thereby

learning to reason. Mastery of these skills is certainly not to be scorned but it should not be confused with literacy, let alone with thinking itself. The danger, you see, is that we will get so bogged down in teaching the mechanics of writing that we will never get beyond them to teach the very things we appeal to in justifying training in those mechanics. Remember, then, that an education in the mechanics of writing is neither an essential ingredient nor a guarantee of rational, abstract thinking.

3. Thinking in an Oral Medium

The aspect of writing which one must assume is at issue when it is claimed that learning to write is just learning to think in composition — that is, the creation of written works. For this an author does not need to possess mechanical skills such as handwriting and spelling since the final product, and even intermediate stages thereof, can be transcribed by another. What is required of one who composes written works — at least prose, non-fiction works — is that ideas be presented and organized, evidence and arguments be marshalled, and implications and conclusions be drawn. When you get right down to it, a well-executed prose, non-fiction work exhibits the very kind of thinking which according to the psychologists is a consequence of literacy. It might be supposed therefore, that in order to learn to think a person must learn to compose such works. Yet learning to compose written works is simply one *way* to learn to think logically and abstractly. It may be a good way for some people, but there is no reason to suppose it is a good way for everyone or that it is the only way.

That so few of us seriously entertain alternatives to the teaching of writing as a way of teaching children to think is a sad commentary on our society's fixation on the written word and its devaluation of oral communication. Children *could* learn to explore ideas orally; they *could* be given practice through discussion in finding implications; they *could* learn by engaging in dialogue to challenge assumptions and defend their conclusions; they *could* be given experience in listening for nonsequiturs.

Gareth Matthews has documented a number of fascinating philosophical discussions he and other adults have had

with young children when they ask questions such as this one:¹¹

Jordan (five years old), going to bed at 8 P.M., asked: "If I go to bed at 8 and get up at 7 in the morning, how do I really know that the little hand of the clock has gone around only once? Do I have to stay up all night to watch it?"

"If I look away even for a short time maybe the small hand will go around twice."

Many parents would regard Jordan's question as a manoeuvre for postponing his bedtime. Others would tell Jordan not to worry, the clock is a new one and does not pick up speed. However, as Matthews points out, Jordan's question may be a much deeper one that these parents realize. Jordan's concern is perhaps a very general one about whether observed states are a reliable guide to unobserved states. Indeed, Jordan may have put his finger on the philosophical



problem of induction or on the still more fundamental problem of whether anything at all exists while he sleeps.

We really do not know how far oral communication can take us in the development of thinking for we do not give it a chance. Our prejudices against oral communication run deep. Despite the gross inadequacies of our Post Office, the most literate among us bemoan the rise of the telephone and the resultant decline of written correspondence. Meanwhile, college professors reward students for well-written examinations while giving no credit for intelligent contributions to class discussions. As a college teacher, how often have I heard it said, and said myself, "It's funny, but I really misjudged that student. From his

comments in class I had gotten the impression he understood the material almost as well as I did, but his final exam is badly written. He obviously is a poor student!"

We do not dream that thinking is compatible with utterance, nor that abstract thoughts and concerns may be lurking in the minds and hearts of young children. David Ecker has recorded an hour-long discussion in a sixth grade classroom of the relationship between theories of art and contemporary paintings.¹² His summary and analysis of it make it quite clear that the children not only understood the imitation theory of art the teacher had introduced to them, but were capable of criticizing it: they adduced counterexamples, pointed out the undesirable positions to which one endorsed the theory would be committed and raised questions about imitation itself. Of course, they did all this under the guidance of a teacher. The point is that we were fortunate enough to have a teacher who encouraged dialogue and tried to further theoretical discussion.

Few adults take the theoretical questions of children seriously;¹³ instead, they brush them aside or transform them into psychological or physical questions to which they then give very concrete answers. Were adults to treat children's intellectual concerns with respect and encourage discussion of them, children might be well on their way to becoming highly developed thinkers long before they had mastered the 3Rs. Indeed, the compositions they were required to write in school might have some meaning for them since, as abstract thinkers, they might have some point to make and be armed with arguments to support it.¹⁴

Socrates worried that reliance on the written word would weaken memory.¹⁵ Today most of us have no memory for the broad outlines, not to mention the nuances and details, of oral argument. We doubt that children can really learn to think if they cannot write down their thoughts, for we do not believe that people can connect their ideas to one another if they cannot go back over their statements. "How can one's arguments be coherent if the premises are not right there to be read and reread?" we ask, forgetting that we have been conditioned by the written word. I once wrote an

examination in constitutional law for a blind student at the Harvard Law School; that is, he composed it and, as he did, I transcribed it. The most remarkable aspect for me of that remarkable experience was that, although he sometimes paused between sentences for many minutes, he never asked me to read back to him what I had set down. I read his exam back to myself repeatedly to see if *his* train of thought was coherent, but *he* did not have to do this for his memory was trained as mine was not.

In this age of technology, however, memory is not the vital commodity it once was. Dialogues, conversations, oral arguments, dictated examinations and compositions can all be taped. Just as writers can reread their premises, speakers can rehear them. To be sure, listening takes time, but then the kind of thinking which involves the analysis of presuppositions and the drawing out of implications is at best a slow process.

4. Speaking a Written Language

We have seen that thinking can be detached from writing both as mechanical skill and as composition. The latter, therefore, can be bypassed in an education designed to teach people to think. However, while teachers of English tend to stress the *act* or *process* of writing as they endorse the Dependency Thesis, the psychologists seem to be more concerned with the *raw materials* of writing than with its processes — that is, with the nature of written statements themselves. Thus we must ask if literacy and thinking are inextricably bound together by virtue of the very form or structure of written, as opposed to oral, language.

It is an open question if a distinction between oral and written language can withstand critical examination. Certainly Olson's distinction between utterance and text is not satisfactory. He has summarized it in terms of three underlying principles.¹⁶ First, utterances appeal for their meaning to shared experiences and interpretations; because they do, the criterion for a successful utterance is understanding on the part of the listener. Texts, on the other hand, appeal to premises and rules of logic for deriving implications; thus the criterion for a successful statement of text is its formal structure. Second, utterances and texts

appeal to different conceptions of truth. Truth in the former has to do with wisdom, while truth in the latter has to do with the correspondence between statements and observations: thus true statements in a text may be counter to intuition, commonsense or authority while true statements in utterances will be congruent with dogma or the wisdom of elders. Third, utterances and text differ in regard to function: in oral speech the interpersonal function is primary, hence if a sentence is inappropriate to the listener it is a failure; in texts, however, the logical or ideational function is primary with communication playing second fiddle to "getting it right."

There can be no doubt that utterances are contextbound. However, it does not follow from the fact that they are intended for some audience that their only criterion of success is that the audience understand them. If I say to you, "An MIT professor believes we should build more nuclear power plants, so let's go ahead," you will be right to lecture me about non-sequiturs even as you understand my utterance. Socrates had to be concerned about his listeners lest his dialogues become monologues and his reputation as gadfly be forfeited. But concern for one's audience is scarcely incompatible with concern for valid inference and truth. As the volumes written about them testify, Socrates' utterances admit of more than one interpretation — a property which, on Olson's view, differentiates utterances from texts. But then Locke's essays, which Olson takes to be model texts, admit of more than one interpretation, too.

Further investigation into oral and written language may reveal that in a literate culture the two are not distinct. If they are not, it would be a truism to say that one can speak a written language. If the two do differ in significant ways, then Olson's statement that "formal schooling, in the process of teaching children to deal with prose texts, fosters the ability to 'speak a written language'," bears repeating.¹⁷ In either case, the point to keep in mind is that since written language can be spoken, thinking can be dependent on the form and structure of written language without being dependent on literacy. Of course, for there to be written language

a culture would have to be literate. But an individual in that culture could learn to speak a written language without being able to read or write it.

Those who support the Dependency Thesis while acknowledging that one can speak a written language assume that the possession of this skill presupposes literacy. Only if one can read and write can one speak in this way, goes the argument. Yet once it is granted that written language can be spoken, it is difficult to see why one who speaks it must necessarily be able to read and write. Of course, there must *be* a written language if a written language is to be spoken. And if there is a written language there must *be* people who can read and write it lest the spoken written language over time diverge so far from the written language simpliciter that it loses the properties of a written language. Still, the conclusion that *every* speaker of a written language must be literate does not follow from the fact that if a written language is spoken there must be *some* literate people.

Reading and writing a written language is one way to learn to speak it. But just as spoken language in general is learned by hearing it spoken and through practice in speaking it, so one can learn to speak a written language in this way. Indeed, it is not unreasonable to expect that given a supportive oral environment children would learn to speak a written language relatively easily. By "supportive" I do not merely mean one that is warm and friendly, although a psychologically benign environment would no doubt be important. An oral environment supportive of spoken written language would be one filled with that language. It would have live speakers, although it could also make use of tapes and films. It would also provide ample opportunity for practice.

In their article on the cognitive consequences of literacy, Sylvia Scribner and Michael Cole warn that confusion results when the consequences of literacy over the course of human history are not distinguished from the consequences of literacy for the individual in present day society.¹⁸ I leave open here the question of whether from an historical perspective literacy and thinking are linked by virtue of the very nature of written language. The point I want to make is simply that *if* they are,

for any individual in a literate society such as ours thinking can nonetheless be detached from reading and writing and, hence, education for thinking can bypass education in these 2 Rs.

Neither as mechanical skill nor as proficiency in composition is the ability to write essential for thinking. As we have already seen, rational abstract thinking can take place in an oral medium and when there is reason to inscribe what has been said the thinker can turn to others for help in transcription. Nor is the ability to read and write a written language essential for thinking: since each language can be spoken it is quite possible to acquire it without resorting to book learning. To be sure, teachers of reading, like teachers of writing, will insist that learning to read is learning to think. But the component skills of reading are no more essential for thinking than are those of writing. Comprehension, analysis, interpretation are central elements of reading as they are of abstract logical thought. Yet these skills, along with other ones which are shared with thinking, can be learned and exercised in oral contexts. Insofar as the Dependency Thesis claims that literacy is essential for thinking, we must reject it.

To deny that literacy is essential for rational abstract thought is not to say that no benefits for thinking accrue from it. If you can read and write, you can go back over your composition to see if your train of thought has gotten sidetracked or if you have made serious errors. You can also proceed throughout at your own pace and can have the advantage of being able to "see" your thoughts on paper, so to speak. In an oral medium that particular advantage is lost, but with the help of a tape recorder you can review what has been said for purposes of editing, and a supportive oral environment will allow you to control pace. Because literacy is not essential for thinking it is in the final analysis a question of costs and to some extent these will vary from individual to individual. Where reading and writing come easily, let us not forget that these skills can be harnessed to the promotion of rational abstract thought. Where mastery of these 2Rs is itself problematic, let us remember that they are but one route to such thinking. Let us remember also that an over dependency

on the written word has a high price: memory suffers, as do visual and oral skills. Most important, of all, thinking itself is diminished.

5. The Varieties of Thinking

Even if learning to read and write were essential for abstract logical thinking, it would be incumbent on us to challenge the Dependency Thesis because of the injustice it does to human thought. In the first place, thinking outruns language. The British philosopher, Gilbert Ryle has said it well:¹⁹

The architect might try to think out his design for the war-memorial by arranging and re-arranging toy bricks on the carpet; the sculptor might plan a statue in marble by modelling and remodelling a piece of plasticine. The motorist might weigh the pros and cons of different roads in his mind's eye. The guide might be planning tomorrow's climb, methodically scanning through a telescope the slopes, precipices and water-courses of the mountain from his hotel.

Quite simply, there is more to think-

tional task. The inability to tell in words one's plan no more means that no plan has been developed, than the inability to put in writing a plan one can describe in words means that the plan is based on faulty logic.

One can be in the middle of thinking without saying or trying to say anything to oneself or to others; one can have succeeded in thinking without being ready or even able to tell in words what has been thought out. Moreover, insofar as thinking is language based, it is not confined to the straight-jacket in which advocates of the Dependency Thesis would put it. Poetic thought, for instance, does not analyze presuppositions and draw out logical implications. Its object is not to minimize ambiguity but to capitalize on it; its concern is not to formulate new knowledge. Nor is the concern of practical problem solving to formulate new knowledge: its object is the determination of some course of actions, not the discovery of theoretical truths.



ing than advocates of the Dependency Thesis acknowledge. One danger of that thesis is that it will cause educators to lose sight of thought which is not language based. The kinds of thinking Ryle mentions are not trivial, nor are they "merely" intuitive; they do not just emerge as we mature, nor do they spring full blown from our heads on graduation day. They require experience and practice — in truth, education or a sort not provided by courses in reading and writing. As Ryle says, a guide might have to go to additional labors to describe the route settled on and might even be unequal to this addi-

The thinking which the psychologists claim is so intimately tied to reading and writing is the kind done in the academy. That they focus on the mode of thinking which as members of the academy they value most would be of no consequence were their writings not used to justify educational programs. Since their claims about thinking and literacy surface in discussions of curriculum, however, it is absolutely imperative that we understand just how narrow their conception of thinking is.

In his best-seller on the evolution of human intelligence, the scientist, Carl Sagan, distinguished two modes of

knowing, one a function of the left hemisphere of the brain and the other a function of the right.²⁰ He might just as well have called them two modes of thinking. The "rational" mode — the one "so many of us regard as all of us there is" — is the sole concern of the Dependency Thesis. But there is also an "intuitive" mode and educators ignore it at their peril. Intuitive thinking is holistic, not analytic; it involves pattern recognition, not drawing out of logical implications.

According to Sagan, these two modes of thinking have complementary survival value. To convince yourself that he is right imagine a world in which everyone on all occasions thought in the manner of the academy. Practical life would come to a halt, poetry would perish, music and art would wither. Even the sciences and philosophy — those bastions of abstract, analytic thought — would be impoverished, for intuitive thinking lies at the heart of both scientific creativity and philosophical insight. "Intuitive" does not mean "innate": we are not born knowing how to think intuitively nor do we simply develop into intuitive thinkers as we mature. This mode of thought must be learned, just as rational abstract thought must be. Thus, if we value the intuitive mode of thinking, we must find ways to encourage and foster it even as we foster the rational mode.

The Dependency Thesis would pour all thinking into a single narrow mold. It would have us lose sight of the richness and variety of human thought by sacrificing synthesis to analysis, insight to logic, ambiguity to explicit meaning, the concrete to the abstract and practical intelligence to intellectual theorizing. From the standpoint of education the thesis is a dangerous one. Its currency among psychologists makes it all too likely that it will be used to justify a single track approach to education for thinking. That approach is readily imagined: if literacy is taken to be a precondition of thinking, then education for thinking will have to include education in the first two of the 3Rs; if literacy is thought to transform a person's cognitive capacities, then the latter sort of education will be all that is needed. In other words, education for thinking will consist in learning to read and write.



Superficially the curriculum package delivered by the Dependency Thesis has much to recommend it. We are committed to teaching children to read and write. When education for thinking is equated with education for literacy it is not necessary to introduce something new into the curriculum: we can embrace thinking as an aim or goal of education without being accused of advocating "frills." At the same time, the desire that children learn to think provides one further bit of justification for programs designed to teach reading and writing. Thus education in the basics gains support from the close connection which the Dependency Thesis posits between thinking and literacy, even as it constitutes a solution to the problem of how to teach children to think. Yet can we really depend on programs which teach reading and writing to teach thinking too? Will not thinking be forgotten when it becomes part and parcel of education in these basics? Moreover, does thinking as an educational aim really justify programs which teach reading and writing?

The last question is easily answered. Since it is possible to think on one's feet as Socrates did, indeed possible in a literate culture like ours to do so without being able to read and write, education for thinking is not dependent on education in reading and writing—before we accept the Dependency Thesis' curriculum package, therefore, we must explore alternatives and weight costs. No doubt some learn to read and write with so little difficulty that a route through the 2Rs to the educational aim of think-

ing is justified. But for some this route will be paved with anxiety, frustration and failure. For them a curriculum based on a supportive oral environment is surely more appropriate than one based on the written word. Remember that in weighing costs one must take into account not just the money, time and energy a program consumes, but also the misery, the hatred of learning and the loss of self-esteem which can result from even the best intentioned curriculum design.

The Dependency Thesis is not just the thesis that literacy is essential for thinking, however. It holds also that thinking is a consequence of literacy. Thus the route to thinking through reading and writing would seem to find its justification in the fact that it gets results. Even if an education in the 2Rs is paved with sorrow for some, does it not have one great advantage over its competitors, namely that it guarantees success? I am afraid this advantage is illusory. Scribner and Cole have pointed out that the psychological studies which purport to link literacy and cognitive capacities fail to distinguish between literacy and schooling.²¹ Thus the positive findings those studies yield may reveal more about the powers of schooling than about the powers of literacy. Furthermore, even if those studies do connect literacy to thinking, the data do not support the claim that the transformation of the thinking of *all* those who can read and write is *guaranteed*. And supposing they did support this strong claim, the kind of thinking which an education in reading and writing would yield would not be all inclusive: the thinking done by Ryle's architect, sculptor, motorist and mountain guide would be ignored, as would the thinking Sagan calls "intuitive."

Reading and writing education constitutes at best an education in language based thinking. That it constitutes an education even in this depends on the way it is conducted. If it is an education in reading and writing essays, it perhaps develops the abstract, logical thought on which the psychologists focus, but it will fail to foster the kind of thinking done by a poet or novelist. When one considers how difficult it is to teach essay reading and writing, and that abstract, logical thought, although important, is but one

kind of thought, the literacy route to thinking looks less and less inviting. Can one doubt that on that route many will lose their way entirely and that others will get so bogged down in the details and mechanics of literacy that their thinking processes will have scarcely been enhanced? Is not the development of the thinking of each person too important a goal of education to be sacrificed unnecessarily on the altar of literacy?

One promising approach to thinking as a goal of education has been taken by Matthew Lipman and his associates. Lipman has written two philosophical novels, *Harry Stottlemeier's Discovery*, and a sequel, *Lisa*.²² *Harry* and *Lisa* are about children who discuss "heavy" issues, among them: lying and truth-telling, what is right, what is fair, the nature of mind, the nature of death. These children also discover for themselves general principles of reasoning which they then apply in their own conversations. Lipman's novels are meant to be read *by* children, rather than to be read *to* them by their teachers or their parents. Nevertheless, *Harry* and *Lisa* lend themselves well to attempts to detach education for thinking from education for literacy.

The overall Philosophy for Children program into which *Harry* and *Lisa* fit emphasizes dialogue and discussion.²³ Just as the children in these novels learn to reason and to think philosophically through conversation with teachers, parents and peers, so children in the elementary and junior high classrooms in which the novels are used are supposed to learn to think by talking things out. Their teachers, in turn, are supposed to be gadflies. They are instructed to encourage students to take the initiative in formulating some position, to help them question their underlying assumptions, to introduce alternative views and to suggest ways of arriving at more comprehensive answers. In sum, these novels portray, and are also intended to serve as vehicles for establishing, a supportive oral environment for fostering philosophical thought.

Nonetheless, were there functional illiterates in a classroom in which *Harry* and *Lisa* were being used they would be at a great disadvantage for they would not be able to read them. It is important

to realize, therefore, that these novels *could be taped in English*, as *Harry* has been in Spanish,²⁴ so that the functional illiterates in every classroom could profit from the talk and interaction of the fictional children. A child who is a poor reader may be a fine listener. Indeed, I would hope that the vast number of written works which lend themselves to philosophical discussion among children and hence to the development of abstract, logical thinking would be put on film or tape.²⁵ The kind of supportive oral environment for thinking Lipman has tried to create is quite exciting, but in education for thinking, as in education in general, variety is the spice of life.

It would be a mistake to suppose that the way to the development of thinking Lipman has charted is the only one worth exploring, however. No single educational route to something as rich

and varied as human thought can possibly be adequate. Give to philosophy the monopoly on education for thinking which the psychologists and teachers of English would give to literacy and we will find that we have once again set ourselves a very limited destination. When thinking is taken seriously as a goal of education the sciences, the arts and practical activities must all have access to it and routes must be charted through the gymnasium, the studio, the laboratory, the theater and the shop as well as through the classroom. A single track approach to education for thinking, whether literacy based or not, is misguided because the thinking which should be an aim of education takes many forms. Just as the different guises of thinking permeate life itself they should permeate the curriculum.

FOOTNOTES

- * I want to thank Ann Diller, Nancy Glock, Michael Martin and Beatrice Nelson for helpful comments on a draft of this essay.
1. *The Dialogues of Plato, Vol. I, B. Jowett* (trans.) (New York: Random House, 1937), pp. 278-279.
2. For a valuable discussion of this view and references to the relevant psychological studies see Sylvia Scribner and Michael Cole, "Literacy without Schooling: Testing for Intellectual Effects," *Harvard Educational Review*, 48 (November, 1978), pp. 448-461. In his Presidential Address to the 35th Annual Meeting of the Philosophy of Education Society, April, 1979, Robert H. Ennis presented a philosopher's version of this thesis.
3. Thomas J. Farrell, "Literacy, the Basics, and All That Jazz," *College English*, 38 (January, 1977), p. 449. It should be noted that the literature on the relationship of literacy to thinking does not usually distinguish the thesis that thinking is an outcome of literacy from the thesis that literacy is necessary for thinking.
4. David Olson, "From Utterance to Text: The Bias of Language in Speech and Writing," *Harvard Educational Review*, 47 (August, 1977), pp. 277-278.
5. *Ibid.* Another way out of the difficulty the existence of Socrates poses for this distinction is to attribute all the intellectual achievements thought to be his to Plato. Thus Jack Goody and Ian Watt refer to Socrates as Plato's "spokesman" "The Consequences of Literacy" in Jack Goody (ed.) *Literacy in Traditional Societies* (Cambridge: University Press, 1968), p. 50. The historical record simply does not support this interpretation of the relationship between Plato and Socrates, however.
6. My discussion here relies primarily on Eric Havelock, *The Origins of Western Literacy* (Toronto: Ontario Institute for Studies in Education, 1976).
7. This point of view was set forth in the influential *Newsweek* article, "Back to Basics in the Schools," October, 21, 1974, p.91.
8. *New York Times Magazine*, May 23, 1976 p.68.
9. *Ibid.*
10. Havelock, *op. cit.*, pp.3-4.
11. Gareth B. Matthews, "Are Children Philosophical?" in Matthew Lipman and Ann Margaret Sharp (eds.) *Growing Up with Philosophy* (Philadelphia: Temple University Press, 1978), pp. 63-77.
12. David W. Ecker, "Analyzing Children's Talk about Art" in Lipman and Sharp, *op. cit.*, pp. 284-300.
13. Matthews, *op. cit.*, gives reason to believe that not even Piaget does.
14. I do not mean here to endorse the naive view that writing is simply the recording of pre-arranged thoughts. Surely for most writers of essays the processes of writing and thinking interact in complex ways. Still, to write a decent essay one must have something to say and want to say it. These conditions are too rarely met in composition courses, in part because students are not independently encouraged to think about the kinds of things which are appropriate essay topics.
15. *Op. cit.*, p. 278.
16. *Op. cit.*, pp. 277-278.
17. *Ibid.*, p. 271
18. *Op. cit.*, p. 452.
19. "Thinking and Language," *Aristotelian Society Supplementary Volume*, XXV (1955), p. 89.
20. *The Dragons of Eden* (New York: Ballantine Books, 1977), Ch. 7.
21. *Op. cit.*
22. Matthew Lipman *Harry Stottlemeier's Discovery* (Upper Montclair, N.J.: The Institute for the Advancement of Philosophy for Children, 1976).
23. See Matthew Lipman, Ann Margaret Sharp and Frederick S. Oscanyan, *Philosophy in the Classroom* (Upper Montclair, N.J.: The Institute for the Advancement of Philosophy for Children, 1977).
24. A. Gray Thompson and Adrian DuPuis, "Bilingual Philosophy in Milwaukee," *Thinking*, 1 (January, 1979), p. 37.
25. For some examples of these see Gareth B. Matthews, "Philosophy and Children's Literature," *Metaphilosophy*, 7 (1976) pp. 7-16.

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Philosophy For Children In Hawaii

Barry Curtis

Yvonne Nakamura and her sixth graders were sitting on the carpet in their classroom at Waiakea Elementary School in Hilo, talking about children's rights. Yvonne had divided the class into small groups, and had asked each group to come up with at least one right that they thought children should have. This discussion, like many others which the children had participated in during the school year, was part of a Title IV-C program in philosophy for children in elementary schools on the Island of Hawaii. The program was based on *Harry Stottlemeier's Discovery* and the accompanying teacher's manual, a curriculum in philosophy for fifth and sixth graders developed by Matthew Lipman and Ann Sharp of the Institute for the Advancement of Philosophy for Children. Yvonne's sixth graders had just finished reading Chapter 9 of *Harry*, which deals, in part, with the issue of children's rights.

Yvonne asked each group of children to report on the outcome of their discussion, and as they did, she wrote it up on the blackboard. Yvonne said she had expected the children to come up with trivial things, like the right to watch whatever show you want to on TV. She was surprised at the depth and breadth of scope contained in the children's suggestions. When they were finished, the blackboard looked like this:

We think children have the following rights:

1. To make decisions.
2. To defend themselves.
3. To have the same rights even if their racial backgrounds are different.
4. To have freedom of speech.
5. To learn independently and do things themselves ("and not be babied," it was explained.)
6. To think for themselves.
7. To do some of the things adults do, (for example, voting — "After all, what the president does affects us, too," but not drinking — "You have to be older before you can handle it," or staying out late at night — "You might get hurt".)
8. The right to have rights.
9. The right to disagree.

Of all the suggestions on the list, perhaps the most interesting one was number 8: "the right to have rights." It is an unusual experience for children to be treated by adults as subjects of moral rights, and even more unusual for children to be consulted about what they think their rights are. By conducting this discussion with the children, Yvonne had acknowledged their "right to have rights." She had addressed the children seriously as moral agents and thinking persons, and they had responded seriously, by dealing with a moral issue which closely touched their lives at a high level of generality, and in a way that combined both insightfulness and restraint. Like other children involved in the Hawaii project, Yvonne's sixth

graders were beginning to do philosophy. In the process, they were moving toward a more enlightened conception of themselves and each other.

Philosophy for Children in Hawaii achieved a number of interesting results during its first year. Post-testing of the children revealed significant gains in reading comprehension, reasoning ability and ideational productivity. The improved performance of the Hawaii children in these important areas provides suggestive evidence of the potential impact of the philosophy program on basic educational skills. But the Hawaii children had also gained something else — something which shows up only indirectly on standardized tests. They had developed an increased awareness of themselves as thinkers — thinkers who deserve to be heard and taken seriously by adults as well as other children. Of all the positive results of the Hawaii project, this was perhaps the most important one. The children had discovered their own considerable abilities to make intellectual discoveries and to “think for themselves.”

Philosophy for Children got started in Hawaii in the summer of 1978, when a philosophy professor and a professor of education from the University of Hawaii at Hilo began training a dozen elementary school teachers in the use of *Harry Stottlemeier's Discovery* in the classroom. Teachers were selected for the program from a group of volunteers, who were interested in trying out *Harry* in their classes during the following school year. In preparation for teacher-training, the two University of Hawaii professors had attended an IAPC-sponsored seminar in philosophy for children earlier in the summer.

The teacher-trainers conducted a two-week summer workshop, meeting four hours a day to discuss the philosophical issues raised in *Harry*, and to acquaint the teachers with the exercises, activities and discussion plans in the accompanying teacher's manual. The overall goal of the workshop was to help the teachers develop a “feel” for what it is to do philosophy and how to do it with children. In addition to the summer workshop, participating teachers attended two-hour seminars every two weeks during the regular school year to stay in touch

with the program and share their experience in the classroom.

More than 300 children, from six Hilo area elementary schools (one of them private), were involved in the program. These children, like children everywhere in Hawaii, represented a variety of different races, ethnic groups and nationalities: Japanese, Filipino, Hawaiian, Portuguese, Korean, Samoan, Puerto Rican, Chinese, and mainland Caucasian (a minority). Of the twelve classes involved in the project, one was in the fourth grade, two in the fifth grade, eight in the sixth grade, and one class included both fifth and sixth graders. One of the fifth grade classes consisted of “gifted” children, and four of the sixth grade classes were at inner city schools.

Early in the fall, meetings were held with parents of participating children to explain the nature and purposes of the project. At some of these meetings, the parents read and discussed a chapter from *Harry*; at others, they went through one of the exercises from the teacher's manual. The meetings were well attended, and the response to the program was enthusiastic. Besides informing the parents about the curriculum, the meetings served to create an atmosphere of support and trust at home which undoubtedly helped to further the effectiveness of the program.

The teachers began using the curriculum in October, following pre-testing of the children, and continued to use it in the classroom on an average of two hours a week for the rest of the school year. Some of the teachers used the curriculum during their social studies period; others used it during time set aside for reading or math. St. Joseph's School, the only private school involved in the project, specifically earmarked two forty-minute periods a week just for philosophy. During these sessions, the children learned some basic Aristotelian logic, and participated in discussions with their teachers on the issues in ethics, aesthetics, epistemology, metaphysics, philosophy of science, and philosophy of psychology arising out of *Harry* and the exercises in the teacher's manual. As a catalyst for these discussions, the fifth and sixth graders took turns reading sections of

each chapter of *Harry* aloud. The fourth graders, for whom the reading was somewhat difficult, followed along as best they could, while their teacher read aloud with them.

The children's response to *Harry* was enthusiastic. Several of the teachers reported having to collect the books at the end of each session, because the children wanted to read ahead. Other teachers said they had difficulty in getting the children to stop in the middle of a chapter to discuss the philosophical issues, because the children were anxious to go on reading and find out “what happens next.” Once the discussions got going, however, most of the children became actively involved. As the discussions progressed during the course of the school year, the children became more and more interested in talking about philosophical questions, and more and more confident of their own abilities to “think for themselves.”

One reason for the rising level of intellectual self-confidence on the part of the children was the attitude taken by their teachers in leading classroom discussions. The teachers were generally willing — tentatively at first, more confidently later — to take the children seriously as thinkers, and to talk with the children about their ideas in a way that granted their capacity for insightfulness and creative thinking. Like guides in new territory, the teachers were willing to listen to the children's suggestions about which way to go. Sometimes this willingness went a little too far, with the result that the conversation only scratched the philosophical surface, got bogged down in sidetracks, or reduced itself to an opinion poll. But once in a while, when the teachers displayed a general sense of direction, as well as a readiness to listen, the children were able to find the path to a genuine philosophical discovery. It was this, above all, that built up the children's confidence in themselves, and sustained their interest in the program. We saw one example of this in Yvonne's class, where the children came in touch, perhaps for the first time, with a concept of themselves as subjects of moral rights. Here is another example from a class of sixth graders who were led to a similar insight in a radically different way.



“Several teachers reported having to collect the books at the end of each session, because the children wanted to read ahead. Other teachers had difficulty getting children to stop reading to discuss philosophical issues...they were anxious to find out ‘what happens next’.”

On the same day that Yvonne's class was talking about children's rights, Ed Mahoney was conducting a discussion with his sixth graders at DeSilva School about obligations between children and parents. Ed asked the children whether there was anything they owed their parents. The discussion went like this:

- Lena —Yes, money, if you borrow it.
 John —Yes, they give you most everything you want, so you could at least fix their bed.
 Beth —Gratitude.
 Jeff —You should help them wash dishes and do other things around the house.
 Jennifer —Respect.
 Lena —I agree with Jennifer, because they brought you into the world, so at least you owe them respect.
 Mahoney —Well, let me ask you this: do your parents owe *you* anything?
 Jeff —They don't owe you nothing, but they love you, so they give you what you want.
 Nicky —You weren't asked to be brought into the world, so you don't own them anything.
 Mahoney —You're back on the *other* question. Now we're talking about whether there's anything your parents owe *you*.
 Janalee —I agree with Nicky. Since because

they brought us into the world, they ought to take care of us.

- Mahoney —Till when?
 Ken —Till you're 18.
 Mahoney —What if you want to stay on? (Silence). You think about that, okay? When do you change from being a teenager into an adult?
 Nicky —When you get married.
 Mahoney —What if you never get married? (Children laugh).
 Scott —When you're independent.
 Mahoney —That's interesting, Scott. I like that word, "independent." Just for fun, let's take a poll. How many think your parents owe you something? (A bare majority raise their hands.) Let's use our imaginations for a minute. Suppose you're 23 years old, and you're married and have a couple of kids. (Giggles from the class.) What do you owe your children?
 Lynne —Love and respect.
 Tom —Shelter and clothes and food. (Mahoney starts listing the children's suggestions on the blackboard.)
 Kim —Love and discipline.
 Mahoney —What is discipline?
 Kim —Telling them what to do.
 Mahoney —Okay, what else would you owe your children?
 Doug —Love and companionship.
 Craig —Protection.
 Kent —Toys.
 Lena —Everything they need to survive — all of the things on the blackboard.
 Carol —Attention.
 Mahoney —That's different from protection, isn't it? (Carol nods.)
 Nicky —Education.
 Mahoney —How much education?
 Child —Enough to be self-supporting.
 Ken —Teach them right from wrong.
 Mahoney —Anything else you owe your children?
 Tom —Care.
 Mahoney —Is that the same as attention? Love? (Class is silent.) No? (Mahoney adds "care" to the list on the blackboard.) Most of the things on this list are things we think of as "positive." Love, care, companionship. Are any of the things on the list negative things?
 Children —Discipline.
 Mahoney —Does anyone think it's positive?
 Others —Yes.
 Mahoney —Why?
 Jeff —If you don't teach them, they'll act tough and be brats.
 Ken —It teaches you manners.
 Mahoney —Well, that's very interesting, class. We've just about run out of time. So not I want you to stand up in your place if you've said something today. (All but six stand.)

a variety of ideas about the responsibilities of parents toward children. Like the children in Yvonne's class, Ed Mahoney's sixth graders had made the discovery that children, too, have rights. And like Yvonne's students, they were able to go on to give serious and thoughtful examples of some of the rights which they thought children were owed.

Ed and Yvonne have very different styles of teaching, but they share two important qualities in common that make for productive classroom discussions: openness to the opinions of children, and genuine philosophical interest. Their openness makes it possible for the children to freely express their own ideas, without fear of saying something "childish" or wrong, and their philosophical interest guides them in organizing discussions and choosing material that can lead the children toward important intellectual insights. It isn't easy to be open and philosophical at the same time; the two are often at odds with each other, especially when you're talking with a large group of children who have widely different capacities and interests. A balance must be struck between leading the children and listening to them, and this in itself requires fairness and careful judgment.

The central problem with Ed and Yvonne, as with most of the other teachers, was their failure to probe more deeply into philosophical discoveries once they were made. While most of the teachers were able to lead the children to an insight, they nearly always stopped short of exploring the insight in detail. Ed's discussion of obligations between parents and children is marked by a variety of missed philosophical opportunities — the opportunity to explore key concepts, like the concept of discipline or the concept of independence; the opportunity to look for hidden assumptions among the children's suggestions; the opportunity to pose counterexamples to some of the children's ideas and thereby help to refine their precision; the opportunity to ask for reasons. Ed's students had a flash of insight, but the insight was never carefully examined. As a result, the nature and scope of their discovery remained unclear. Yvonne's discussion on children's rights suffered from the same

defect. The children were led to discover new territory and, once there, left it largely unexplored.

The odd thing is that most of the teachers were aware of the philosophical opportunities that passed them by. Ed, for example, was obviously sensitive to the philosophical significance of the concept of independence and the concept of discipline when they arose in the course of his discussion with the children. But he took only a few, faltering steps toward investigating these concepts with the class before moving quickly on to a new topic. In the course of the discussion on children's rights, Yvonne was clearly aware of at least one crucial philosophical issue — why should children's rights be more limited than the rights of adults? She even raised this question briefly with the children, but gave up on it after a moment or two of discussion.

Why were the teachers so reluctant to probe? The answer probably has to do with their lack of philosophical experience. None of the teachers had any formal background in philosophy prior to the summer workshop. While the workshop helped to awaken their interest in philosophy, and provided them with a few rudimentary philosophical skills, not enough philosophy was actually done with the teachers to give them a developed sense of how to proceed once they arrived on philosophical ground. Too much time was spent in discussing philosophical methodology, and not enough time on actually doing philosophy with the teachers. As a result, the teachers had very little practice in using dialectical techniques. While they were aware of the importance of such things as pointing out inconsistencies, discussing possible counterexamples, and looking for hidden assumptions, they had very little experience in actually doing these things themselves. Hence they were reluctant to try them out at any great length in the classroom.

Fortunately, Title IV-C funding for Philosophy for Children in Hawaii has been made available for a second year. Since most of the same teachers will continue to be involved in the program, the teacher-trainers will have the opportunity to help the teachers further develop their dialectical skills by giving them



Perhaps the most interesting thing about this conversation is the way in which Ed Mahoney led the children to an insight. The children were initially very sure that there were things which they owed their parents, and fairly clear about what was owed. But they were not so clear or sure about what, if anything, their parents owed them. It was not until Ed got the children to imagine themselves as parents that they began to see that moral responsibility between parent and child is a two-way street — that there are some things that parents owe their children, as well as things that children owe their parents. When this happened, the floodgates were opened to



more practice in doing philosophy. Greater emphasis will be placed in the coming year on involving the teachers in philosophical conversations where they can gain a greater working knowledge of standard dialectical techniques. In this way, perhaps, the teachers can be motivated to probe further beneath the philosophical surface, and to go beyond initial insights to the refinement and development of children's ideas. This would represent an important step forward from the philosophical beginning that was made this year.

While this year was only a beginning, some philosophical progress has obviously been made. For one thing, the children have arrived at a number of genuine philosophical discoveries. Crude and unfinished as these discoveries may be, they were a source of much interest, and perhaps of some enlightenment, for most of the children. And despite the tendency toward superficiality in classroom discussions, there were enough occasions when the teachers took the children a few steps beyond "discovery" for the children to gain some sense of what it is to think carefully and critically about their own ideas. As a result, the children have begun to develop an appreciation, and some "feel" for the dialectic.

The response to the program from both teachers and students has been overwhelmingly positive. In evaluating the project at the end of the year, ten of the twelve teachers gave the program high marks for success in achieving its goals, and eleven teachers said they would recommend the program to their colleagues. While they were somewhat critical of their own performance in leading classroom discussions, nearly all of the teachers were highly satisfied with the curriculum material itself, both in terms of its usefulness and its level of difficulty. The also gave high marks to the summer workshop, for arousing their philosophical interest and enhancing their discussion skills. (Most of them felt that the workshop was more valuable than the bi-weekly seminars conducted during the school year.) The highest praise of all comes from the fact that all but one of the teachers have asked to be included in the program again this year.

The positive response of the teachers to the program was matched by the

response of the children, who were also asked to evaluate the program at the end of the year. A majority of the children said that the class had made their reading in other subjects more meaningful, and that they had learned to express themselves more clearly as a result of the class. Most of the children felt that the class had helped them to gain a better understanding of themselves, their classmates, and their teachers. A substantial majority said they felt they were better able to accept the feelings and viewpoints of others as a result of the class, and an even larger majority said that after having read *Harry*, they understood better why they were expected to go to school. When asked whether they would be interested in taking another philosophy course, 82% said yes, and 92% said they would recommend the philosophy class to at least some of their friends.

The children's positive judgment of the value of their experience with philosophy is supported by the results of a variety of tests given the children before and after the program. The children were pre-tested in October, and post-tested in May on reading comprehension, reasoning ability and ideational productivity. As a group, the children showed improvement in all three areas at a high level of statistical significance. Comparison studies provide strongly suggestive evidence of the effectiveness of the program in improving reasoning ability (in the form of drawing formal inferences and discovering alternatives) and moderately suggestive evidence of the success of the program in improving ideational productivity and reading comprehension.

There are, no doubt, many factors that might help to explain these suggestive results. But the one that stood out most in classroom observations was the children's discovery of themselves as thinkers. The program made the children more aware of their abilities to make intellectual discoveries, and to "figure things out" for themselves. As a result, new intellectual problems were seen as a challenge, not a threat. One little girl at Kapiolani School expressed it very clearly, in a conversation with a couple of philosophers who had come to visit her class. "All philosophers," she said, "can learn things from children."

What Do Students Think of Philosophy for Children?

One way to find out is to ask. Children in three communities (Newark, N.J., Pompton Lakes, N.J., and Hilo, Hawaii) in which philosophy for children programs had been given for one year were asked to fill out a questionnaire and to return it unsigned. These are the results.

1. *How much have you enjoyed this program?*

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
A lot	80%	47%	61%	49%	44%	100%	63%	65%	50%
Not so much	9%	36%	37%	49%	48%	—	27%	32%	41%
Very little	9%	14%	2%	3%	4%	—	9%	2%	8%
Not at all	2%	3%			4%		1%	1%	1%

2. *Do you think as a result of this course you have learned to express yourself more clearly?*

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
Yes	69%	79%	100%	87%	83%	89%	83%	87%	86%
No	31%	21%	—	14%	13%	11%	17%	13%	13%
Blank					4%				1%

3. *Do you think this course has helped make your reading in other subjects more meaningful?*

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
Yes	78%	61%	73%	92%	52%	44%			77%
No	22%	39%	29%	8%	44%	57%			22%
Blank					4%				1%

4. Do you feel you understand your classmates better as a result of this program?

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Hilo Totals	
Yes	76%	58%	56%	57%	30%	100%	67%	
No	24%	41%	37%	41%	70%	—	32%	
Blank		2%	5%	3%			1%	

5. Do you feel you understand yourself better as a result of this program?

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Hilo Totals	
Yes	80%	71%	78%	76%	44%	44%	73%	
No	20%	29%	20%	24%	57%	57%	26%	
Blank			2%				1%	

6. Do you think your classmates understand you better as a result of this program?

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Hilo Totals	
Yes	62%	41%	68%	46%	17%	100%	56%	
No	38%	59%	30%	43%	83%	—	41%	
Blank			2%	11%			3%	

7. Do you think you understand your teacher better than you did before as a result of this program?

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
Yes	87%	77%	73%	73%	30%	100%	79%	68%	80%
No	13%	21%	27%	24%	70%	—	21%	32%	19%
Blank		3%			4%		2%	1%	1%

8. Do you feel that you are better able to accept the feelings and viewpoints of others as a result of this program?

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
Yes	71%	68%	85%	81%	79%	89%	75%	83%	85%
No	27%	26%	15%	19%	17%	11%	23%	16%	14%
Blank	2%	3%			4%		2%	1%	1%

9. Do you think this program has been a help to you in:

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Hilo Totals	
Math: Yes	60%	41%	66%	24%	17%	11%	40%	
No	38%	55%	34%	73%	83%	89%	60%	
Social Yes	44%	42%	54%	41%	9%	44%	51%	
Studies: No	51%	50%	46%	57%	87%	56%	47%	
Science: Yes	40%	23%	66%	51%	13%	11%	41%	
No	53%	71%	34%	46%	83%	89%	57%	
Blank	11%	19%			9%	8%		

10. Do you ever discuss what happened in philosophy class with other children outside of class?

	5th	Newark 6th	7th	Pompton 5th	Lakes 6th	8th	Hilo Totals	
Yes	38%	33%	78%	70%	44%	100%	53%	
No	60%	65%	22%	27%	52%	—	47%	
Blank	2%	2%		3%	4%			

11. Do you ever discuss with adults (parents or friends) what happened in philosophy class?

	5th	Newark 6th	7th	Pompton 6th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
Yes	67%	35%	98%	70%	61%	89%	67%	73%	60%
No	33%	62%	2%	27%	39%	11%	32%	26%	40%
Blank		3%		3%			1%	1%	

12. Would you recommend this program to:

	5th	Newark 6th	7th	Pompton 6th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
All of your friends	20%	17%	37%	22%	13%	33%			20%
Most of them	22%	20%	7%	30%	4%	44%	88%	92%	27%
Some of them	44%	44%	49%	43%	65%	22%			46%
None of them	9%	17%	6%	5%	18%		11%	8%	7%
Blank	2%	3%					2%		

13. Having read Harry, do you understand better why children are expected to go to school?

	5th	Newark 6th	7th	Pompton 6th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
Yes	78%	80%	83%	81%	39%	67%	80%	62%	90%
No	22%	18%	17%	16%	61%	33%	19%	37%	10%
Blank		2%		3%			1%	1%	

14. How often each week would you like to have philosophy class?

	5th	Newark 6th	7th	Pompton 6th	Lakes 6th	8th	Hilo Totals
Five	44%	21%	29%	16%	30%	78%	18%
Four	4%	8%	9%	14%	13%	22%	12%
Three	16%	17%	27%	41%	22%		30%
Two	18%	20%	12%	11%	26%		22%
One	13%	12%	17%	19%	9%		12%
Zero	2%	15%	5%				4%
Blank	2%	6%					

15. Are Harry and his friends as real to you as some of the people you know?

	5th	Newark 6th	7th	Pompton 6th	Lakes 6th	8th	Hilo Totals
Yes	73%	56%	61%	78%	83%	22%	73%
No	27%	44%	39%	22%	17%	78%	26%

16. Would you be interested in taking another course dealing with the further adventures of Harry and his friends, when they are a few years older?

	5th	Newark 6th	7th	Pompton 6th	Lakes 6th	8th	Totals		Hilo Totals
							NWK	P.L.	
Yes	93%	71%	88%	87%	78%	56%	84%	74%	83%
No	7%	27%	12%	13%	22%	44%	15%	26%	17%
Blank		2%					1%		

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Philosophy, Religion and Religious Education

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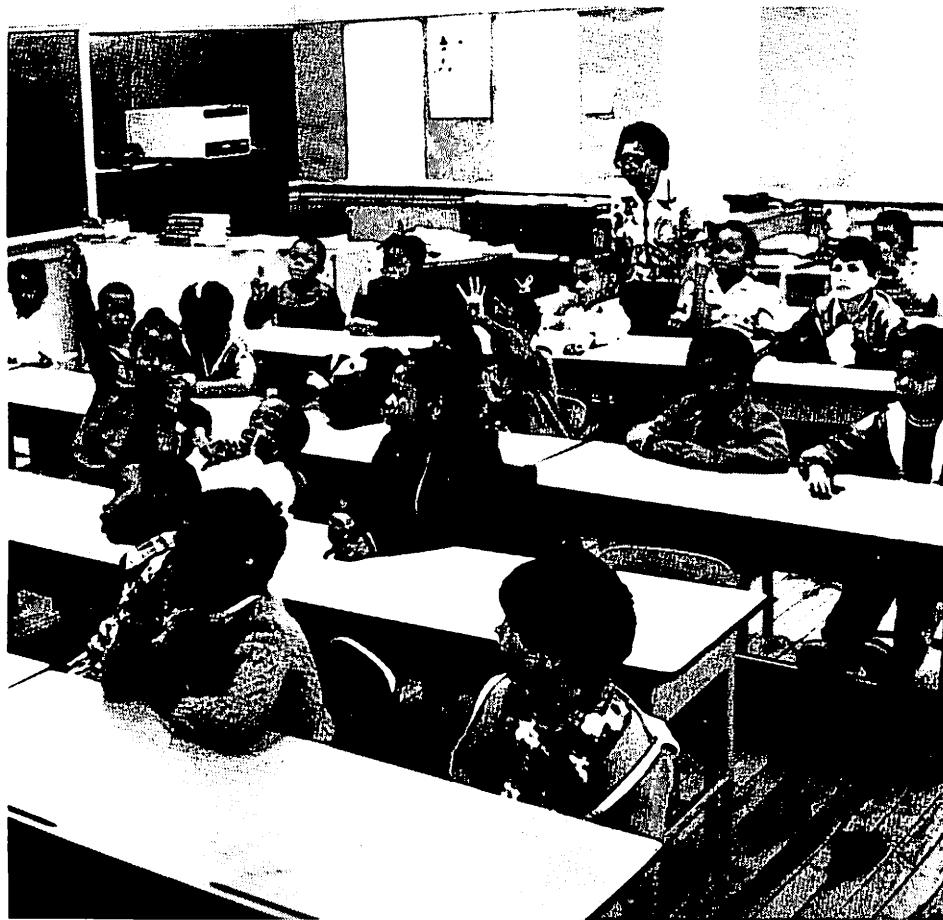
The purpose of this article is to examine the relationship between philosophy and religion and to point up some implications for religious education. The major emphasis, in respect to religion, will be on the cognitive aspects of religion rather than the affective.

Also, in order to limit the scope of this article, I shall discuss this relationship mainly within the context of Western religions, especially the Christian religion, although the same considerations apply to Islam and Judaism. Oriental philosophies and religions are found in a different cultural context and call for analysis within that context.

An examination of the history of ideas reveals that the link between philosophy and religion has many and varied interpretations. These range from the one ex-

treme that philosophy and religion are one and the same, to the other extreme that there is no relationship between the two. Perhaps the latter interpretation is typical of the man-on-the-street's view that sets religion off in a "separate compartment" of one's thinking and living. But the relation between religion and philosophy has always intrigued thinkers and caused controversy. It might be well, for the purpose of this paper, to outline the origins and issues involved in the different views concerning the relationship between religion (faith) and philosophy (reason) as they have developed in the Western World.

Plato suggested that true religion could be identified with philosophy, since the highest object of philosophical speculation and religious worship were for him one and the same: God. The ex-



istence of God is evident from the order and design in the entire universe such as the structure of human and animal organisms, the world of stars and planets. From this "proof" for the existence of God, Plato is able to proceed to the attributes of this supreme being, such as omniscience, omnipotence, and absolute goodness.

For Plato, then, religion is something derived from *philosophical reasoning*, rather than from faith, folklore or revelation. Since Plato had no sacred books containing the revealed truths of religion, he reached his religious views solely on the strength of reason. For other thinkers, however, the single track to religious belief was replaced by a double track, namely revelation (or some similar source) and philosophy. A good example of the attempt to stay on both tracks is found in 1st century A.D. Graeco-Jewish philosophy which influenced Christian thought considerably. This philosophy may be described as an effort to *harmonize* the sacred books of the Hebrews with the tenets of Greek philosophy. Although the Jews of Alexandria were adamant in their belief that their sacred books con-

tained truth and wisdom infinitely superior to the wisdom of philosophers, nevertheless, they were influenced by and even admired Greek philosophy. The result of this two-track approach led them to state that: 1) revelation is the highest possible philosophy; it includes what is good in Greek philosophy. 2) The Greeks derived their philosophical doctrines from the Jewish scriptures or at least from the Jewish tradition. 3) The difference between the revealed doctrines and Greek philosophy lies chiefly in the way the truths are expressed: scripture uses symbols and figures whereas philosophy expresses the same truths in the form of rational concepts.

While some Jewish thinkers of the time were attempting to harmonize philosophy and religion, some early Christian writers rejected philosophy outright, mainly because of its pagan origins. Tertullian (160-240) exemplifies this hostile attitude toward philosophy and finds truth only in the revealed dogmas of Christianity. But other Christian thinkers of the time were not at all negative in their appraisal of philosophy. For example, Origen (185-254) assimilated into his exposition

of Christian dogma philosophical elements derived from Plato, Aristotle, Philo (Jewish) and the Neo-Platonists.

Perhaps the greatest thinker of the early Christian era to wrestle with the problem of the relationship of philosophy to religion was St. Augustine of Hippo (354-430). His solution became the accepted model until the Scholastic era in the middle ages. Augustine's acceptance of Plato's philosophical system along with the tenets of the Christian religion made him the ideal of the philosopher-theologian. One cannot develop a sound theology without a philosophical base, but on the other hand one cannot acquire complete wisdom from philosophy alone. Revealed truth is needed!

With the effects of the barbarian inroads and the emergence of the later Middle Ages, Dark Ages philosophy assumed an important role in the rebuilding of Western culture. Erigena brought back Platonism in the 9th century. Alcuin already had established schools a few years earlier to teach grammar, dialectic and philosophy. The Augustinian view of the relationship of philosophy to religion was again considered the ideal by these early scholastics. Anselm, Archbishop of Canterbury, (11th century), put his official approval on the view that philosophy and theology do not contradict but aid and need one another. As such, each has its separate sphere. But Anselm and his contemporaries did not draw a *sharp* distinction between the two fields. It wasn't until the 13th century that thinkers attempted to draw clear lines between the domains of philosophy and religion. Aquinas, for example, argues that these are two distinct disciplines: 1) Philosophy views knowledge (truth) in the light of human reason alone, whereas religion views knowledge (truth) in terms of revelation and/or faith. For example, one can present arguments for the existence of God from reason alone or from revelation. 2) Some knowledge (truth) belongs exclusively to philosophy; some exclusively to religion and some is common to both. Examples of the first might be the many questions of classical metaphysics, most of which have no bearing on man's destiny or on his relations with God. Examples of the second might be knowledge of the Divine Trinity, the dogma of original

sin, etc., which are derived mainly from revelation. The existence of God might be cited as an example of knowledge which can be derived from both philosophy and religion. 3) Though distinct, philosophy and religion do not contradict one another, since the Author of all truth cannot contradict Himself. 4) Religion's knowledge can supplement or strengthen rational knowledge. Thus, philosophy may tell much about man's nature and destiny, but religion can supplement and strengthen this knowledge. For example, philosophy may lead to the conclusion that immortality is the lot of human beings, but religious belief in immortality not only strengthens that conclusion, but also may say something about such matters as life after death, and how one must live to attain eternal happiness. Faith, then, for Aquinas, adds to knowledge of reality rather than negating or denying the knowledge derived from philosophy.

Philosophy, then, according to Aquinas, can aid religion by furnishing reasons for credibility, by establishing the preambles of religion, by supplying analogies which enable us to represent to ourselves the truths of religion, and by supplying arguments to show the "reasonableness" of religion. The practical application of this view is found in Aquinas' *Summa Theologica* in which Aristotelian philosophy serves at the rational foundation for the systematic exposition of religion.

Another significant contribution was the application of elementary Aristotelian logic in the (cognitive) exposition of religion. Aquinas and others used this logic in the construction of theological arguments, a feature generally not found in earlier religious treatises. In the later Middle Ages, study and mastery of the elements of logic became a "prerequisite" for the study of religion. In reality this emphasis on logic led some thinkers to argue that if the conclusions of theology were not arrived at by logically valid arguments they could not be considered "true". A reaction to this extreme position was the attempt by some thinkers (such as Nicolas of Autrecourt, Petrarch, and Meister Eckhart), to discredit philosophy as a source of knowledge and to rely solely on faith or revelation. *All* knowledge acquired by human means (reason and

sense experience) was for these thinkers untrustworthy! Some forms of mysticism reflect this view, and it has carried over into the thinking of some religious people today.

Although there are other views of the relation of philosophy to religion, one further position will be described which has a special bearing on our topic. This is the view that presents religious dogma so that it looks and sounds like philosophy, when in point of fact it is no more than religion's dogma clothed in philosophical language. In essence this approach destroys philosophy by giving it no independent status as a discipline but merely using it to supply the language of religion. The implication of such a view is that philosophy cannot be taught as a discipline distinct from religion, since it provides no knowledge of its own and possesses no unique method.

This brief survey of the various views of the relationship of philosophy to religion (reason to faith) shows that not at any time has there been *one* accepted interpretation of this relationship. The situation today is no different from that described above. Religious thinkers and educators may not knowingly and explicitly appeal to one or the other of the classical views, although in practice they usually adhere to one more than to another. The position which the religious educator takes concerning the relationship of reason and faith will affect the aims and the curriculum of the religious education program.

Another important point is that, in general, philosophy does not or at least should not presuppose that *one* religion necessarily flows from its tenets, nor does one religion presuppose a specific philosophical system. For example, some Jewish philosophers adopted (and adapted) Platonism; some Christian thinkers were Neo-Platonists, others were Aristotelians; some were nominalists, others realists. Thus it may be said that philosophy is neutral. If it were not, one would probably not find the great variety of philosophical beliefs associated with religion (often the same religion) throughout the ages.

If philosophy is accepted as an independent and unique discipline in its own right, one that can be taught to or learned by children (and adults), what role will it play in developing a religious

education program for children and adults?

In order to answer this question, one must show how philosophy is related to religion or what it can contribute to religious studies. A number of connections between philosophy and religion can be suggested, along with several recommendations for religious education.

1. The decision to accept or reject religious belief is philosophical; that is, each individual must answer the question, "Is faith (or revelation) a valid source of knowledge?" Philosophy examines the foundations of religious belief just as it examines the basis of scientific "belief".
2. A very important contribution which philosophy can make to religion lies in the clarification of the language of religion. What do you mean when you say that God is omnipresent? What do you mean when you say that the angels will watch over you? This function — clarification of meaning — is especially important, since religious language is seldom the language of everyday usage.
3. In a somewhat related view, philosophy can provide an understanding of the intellectual context in which religious belief arises. For example, to know that the Judeo-Christian and Islamic religions exist in Western culture and to understand how the concepts of that culture are woven into those religions can provide important insights for explaining the beliefs of those religions. Some thinkers maintain that many Christians devoted to spreading their religion in oriental countries failed to recognize this cultural difference and therefore met with only limited success for all their efforts. Had they analyzed the situation more accurately, they would have recognized how different are the value systems and views of reality underlying Oriental cultures.
4. By the application of logic, philosophy can point up contradictions which arise in religious beliefs and even in religious practice. Further, logic and philosophy enable one to construct a coherent religious system (a theology) which may convince the mind of the truth-seeker. Also such coherent systems are less likely to be

the target of the trained antagonist. At least, a better defense can be mounted against those who attack religion if one begins from a position contained in a logically coherent system. Such systems are likely to distinguish essential truth from myth and folklore and religious doctrine from pious practice.

5. Just as philosophy examines and analyzes other forms of human experience, so too can it examine and analyze religious experiences. For example, such examination and analysis might help to explain why many human beings profess some religious belief and why certain people are attracted to a specific religious sect or set of beliefs.

Perhaps one might summarize the points above by paraphrasing Alfred North Whitehead's statement: In the conditions of modern life, the rule is absolute; the religion which does not value trained intelligence is doomed.

Does philosophy have a contribution to make to religious education? As intimated earlier the religious educator needs a philosophy of religious education just as the science educator needs a philosophy of science education. Parenthetically, there are those who contend that one cannot properly speak of a *philosophy* of religious education; there can only be a *Theology* of religious education. But these educators also would reject the notion that there is some relation between philosophy and religion, and such is not the position advocated here.

Since most readers know what constitutes a philosophy of education in general, it is not necessary to go into much detail about what might be labeled as a philosophy of religious education. Examples of these can be found in the brochures of religious schools, and in the handbooks of teachers of religion. Such sources usually contain statements about the nature of education, the aims of the school, the aims and curriculum of the religious education program, the role of the teacher and teaching method, evaluation, discipline and similar topics. More than likely, however, philosophies of religious education nowadays will eschew any statements implying that religious doctrine should be memorized without understanding. It is in this connection that philosophy steps forward to

aid the religious educator. In philosophy (ideally), learners are assisted in developing their power to think creatively and logically. They are not told what to think. They learn, to varying degrees, to search for and give reasons for holding certain views on some issue. The teachers of religion can utilize this training in their classes and expect students to exercise these same skills of logic and reasoning in the study of religion.

At this juncture many pedagogical questions arise and many different answers are given. Should the study of philosophy be a "prerequisite" for the study of religion at all levels or should it be a prerequisite only for the advanced study of religion? Should the teacher of religion handle those philosophical concepts which are pertinent to the topic under study in the religion class? For example, when students are talking about the religious doctrine of the *Divine Person*, Christ, should the religion teacher explain the meaning of personhood in philosophy? Or should the philosophical notion of personhood have been treated earlier in a philosophy class? There are many, many pedagogical and logistic questions of this type which are not within the scope of this paper.

Religious educators in the field have devised many different approaches to solve these practical problems and at the same time implement their own philosophy of religious education. Materials on such programs can be obtained from the religious education offices of the many denominations sponsoring them.

Perhaps it will suffice here to suggest a few guidelines for religious education.

1. Children should learn philosophy as early as possible in elementary school so that the concepts and methods learned might aid them in their study of religion. Philosophy presupposes and employs inquiry, a process which is essential in all education, including religious education.
2. Both teachers and students should recognize and keep in mind the distinction between the two fields. If this distinction is clear to all, the faith vs. reason conflict will not arise. Philosophy (reason) provides knowledge (truths) derived from the human mind. Revelation (faith) provides

knowledge (truths) beyond the scope of the human mind. Nevertheless it is the human mind which "assents" to the authenticity and validity of these extra-human sources.

3. Philosophy teaches the need for openness and serious discussion of the issues involved in the topic under consideration. Such discussions can assist students to clarify the religious doctrines being considered, rather than simply memorizing them. Also, since students learn to *give reasons* for holding some position on a philosophical point, they will search for and provide reasons for assenting to religious doctrines. In this respect, the example of the teacher is crucial: teacher should not expect students to accept religious doctrines solely on the authority of the teacher. Good reasons for accepting the doctrines exist and should be provided.
4. Some teachers fear that the independent thinking advocated and developed by philosophical study will destroy faith. There is no doubt that one takes a risk by encouraging critical thinking on any issue. But if a student "loses the faith" because he or she begins thinking about it, the chances are that his/her faith was not very well-grounded.
5. It is highly desirable for religion teachers to have some background in philosophy. As one who has taken and supervised many religion classes, I can assure you that if the teacher does not raise the philosophical questions, the students usually will do so. Much of educational value will be lost if such questions are not handled in the class.
6. When the points mentioned above are considered in the context of teaching *about* religion in the public schools, it is obvious that one must have even greater concern for openness, objectivity, presentation of reasons for beliefs and the like. In public education, advocating *a* religion is prohibited, but the objective study *of* religion is encouraged. (See, U.S. Supreme Court Decision - Abington vs. Schemp). Certainly the philosophical considerations will be of major importance in teaching about religion in the context of public education.

School districts interested in piloting innovative programs that promise to meet local educational needs should look into the "Adoption Grants" provision of Title IV-C. These grants generally provide relatively limited funding (such as \$10,000 per school district) for the purpose of experimenting with improvements in local educational practice. States which presently have adoption grant provisions under Title IV-C are as follows:

Alabama	Montana
Arizona	New Jersey
California	New York
Connecticut	Ohio
Florida	Rhode Island
Illinois	South Carolina
Kentucky	South Dakota
Louisiana	Texas
Maine	Washington
Michigan	

TITLE IV-C ADOPTION GRANTS

Deadlines for applying for these grants differ from state to state. (For example, the deadline in New Jersey is December 7, with winners to be announced by the following February. Some fifty adoption grants are expected to be given out in New Jersey, for a maximum of \$10,000 apiece.) Interested districts should contact their state Title IV-C office. Here are the names and addresses to contact:

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The following is the relevant passage of the Elementary and Secondary Education Act as it applies to Title IV-B and IV-C:

Public Law 95-561, Nov. 1, 1978 (Elementary and Secondary Education)

'PART B — Instructional Materials and School Library Resources Activities Authorized

"Sec. 421. The amounts allotted to each State under section 403 for the purposes of this part shall be used to provide assistance to local educational agencies within that State—

"(1) for the acquisition of school library resources, textbooks, and other printed and published instructional materials for the use of children and teachers in public and private elementary and secondary schools which shall be used for instructional purposes only; and
"(2) for the acquisition of instructional

equipment and materials suitable for use in providing education in academic subjects for use by children and teachers in elementary and secondary schools which shall be used for instructional purposes only.

Program Requirements

"Sec. 422. (a) Funds available to a State under this part shall be distributed among local educational agencies in that State according to the enrollments in public and nonpublic schools within the school districts of those agencies, adjusted, in accordance with criteria prescribed by the Commissioner, to provide higher per pupil allocations to (1) local educational agencies whose tax effort for education is substantially greater than the State average tax effort for education, but whose per pupil expenditure (excluding payments made under title 1 of this Act) is no greater than the average per pupil expenditure in the State, and (2) local educational agencies which have the greatest numbers or percentages of children whose education imposes a higher than average cost per child, such as children from low-income families, children living in sparsely populated areas, and children from families in which English is not the dominant language.

"(b) Local educational agencies shall be given complete discretion (subject to the provisions of section 406) in determining how funds they receive under this part will be divided among the purposes described in section 421, except that the State educational agency shall insure that each local educational agency, in making that determination, has adopted appropriate procedures, including periodic consultation with teachers, librarians, media specialists and other professional staff in the schools, and private school officials, to coordinate the selection of equipment and materials under this part with curricula being carried out in the schools within that agency.

Part C— Improvement in Local Educational Practice

Activities Authorized

"Sec. 431. (a) The amounts allotted to each State under section 403 for the

purpose of this part shall be used to provide assistance to local educational agencies within the State for activities that will improve the educational practices of those agencies, including—

“(1) the development and demonstration of activities designed to address serious educational problems in elementary and secondary schools, including—

“(A) the need for effective programs for children with special needs, such as educationally deprived children, gifted and talented children, and handicapped children.

“(B) high rates of children who do not complete secondary school and—

“(C) the need of children in private schools for improved educational services;

“(2) encouraging the development and demonstration of improved means of carrying out programs for educationally deprived children in school attendance areas having high concentrations of children from low-income families;

“(3) activities designed to improve the achievement of children in basic skills;

“(4) activities to encourage the participation of parents in the education of their children;

“(5) the development of programs to diagnose learning problems and assess the educational achievement of children, including children in nonprofit private schools;

“(6) developing and implementing model plans to demonstrate effective means of improving school management and fully coordinating all the Federal, State, and local resources available in a school in a fashion designed to meet the individual needs of every child in that school;

“(7) professional development programs for teachers, administrators, and other instructional personnel in the schools of such agencies;

“(8) early childhood and family education programs for children not yet enrolled in kindergarten programs and below age six for activities related to the identification of potential barriers to learning, the education of parents in child development, home-based pro-

grams, and referral services; and

“(9) programs to extend the education process beyond the school building through the use of other resources in the community, such as museums, businesses, cultural organizations, labor unions, and governmental agencies.

“(b) (1) Funds available to the States under this part shall also be used (pursuant to State plans approved under section 404) for the purpose of encouraging innovation and improvement in compensatory educational efforts. Such efforts may include—

“(A) programs of grants to local educational agencies for summer bridge programs which provide students with continued academic improvement and stimulation during the summer months in order to preserve and increase the academic progress of such students in regular school year programs;

“(B) programs of parent education which enable parents to better contribute to their children's academic progress by such means as the conducting of parent education or parenting programs which promote partnership between parents and teachers and help parents develop the skills necessary to motivate and assist such children;

“(C) programs that provide retraining to improve the skills of teachers and other educational personnel to enable such personnel to meet better the specific educational needs of the children served by such personnel; and

“(D) programs to develop educational materials for use by children in the home to improve student achievement in the basic skills.

“(2) Each State shall ensure that not less than 50 per centum of those funds appropriated for any fiscal year which exceed the amount appropriated for this part for the fiscal year ending September 30, 1979, will be used for the purposes of programs described in paragraph (1).

Program Requirements

“Sec. 432. (a) Funds may be provided to a local educational agency under this part for a particular activity for a period of not to exceed five fiscal years (excluding any period for which such agency received a planning grant for such activity), subject to the availability of appropriations for this part of each

fiscal year. The amount provided to a local educational agency for any activity under this part shall decline after the third year, in accordance with criteria prescribed by the Commissioner, in order to ensure that successful practices developed with assistance under this part will be adopted and supported as part of the regular program of such agency.

“(b) (1) From sums made available to each State under this part, the following sums shall be allocated for activities under section 431 (a) (6), relating to plans for improved school management and the coordinated use in schools of all available resources:

“(A) In fiscal year 1980, not less than 5 percent of any amount by which the amount available for this part in fiscal year 1980 exceeds the amount so available in fiscal year 1979.

“(B) In fiscal year 1981 and in each succeeding fiscal year, not less than 10 percent of any amount by which the amount available for this part in such year exceeds the amount so available in fiscal year 1979.

“(2) No activity under section 431 (a) (6) shall be approved by the State educational agency unless the proposal therefor has been developed in consultation with, and has been approved by, a committee composed of administrators, teachers, other staff at the school, and parents whose children attend the school.

“(c) Not less than 15 per centum of the amount received by a State under this part in any fiscal year shall be used for special programs or projects meeting the purposes of this part for the education of handicapped children. For the purpose of this part, the term ‘handicapped children’ has the meaning set forth in section 602(1) of the Education of the Handicapped Act.

“(d) Subject to section 406(d) and (3), a State educational agency shall not approve the application of a local educational agency for assistance under this part unless the State educational agency determines that in designing the proposal to which that application relates, the needs of children in nonprofit private schools have been taken into account through consultation with private school officials and other means.”

PHILOSOPHY IN LITERATURE

Is There Really A Cow In The Field?

"The cow is there," said Ansell, lighting a match and holding it out over the carpet. No one spoke. He waited till the end of the match fell off. Then he said again, "She is there, the cow. There, now."

"You have not proved it," said a voice.

"I have proved it to myself."

"I have proved to myself that she isn't," said the voice. "The cow is *not* there." Ansell frowned and lit another match.

"She's there for me," he declared, "I don't care whether she's there for you or not. Whether I'm in Cambridge or Iceland or dead, the cow will be there."

It was philosophy. They were discussing the existence of objects. Do they exist only when there is someone to look at them? Or have they a real existence of their own? It is all very interesting, but at the same time it is difficult. Hence the cow. She seemed to make things easier. She was so familiar, so solid, that surely the truths that she illustrated would in time become familiar and solid also. Is the cow there or not? This was better than deciding between objectivity and

subjectivity. So at Oxford, just at the same time, one was asking, "What do our rooms look like in the vac.?"

"Look here, Ansell. I'm there — in the meadow — the cow's there. You're there — the cow's there. Do you agree so far?"

"Well?"

"Well, if you go, the cow stops; but if I go, the cow goes. Then what will happen if you stop and I go?"

Several voices cried out that this was quibbling.

"I know it is," said the speaker brightly, and silence descended again, while they tried honestly to think the matter out...

But what about the cow? He returned to her with a start, for this would never do. He also would try to think the matter out. Was she there or not? The cow. There or not. He strained his eyes into the night.

Either way it was attractive. If she was there, other cows were there, too. The darkness of Europe was dotted with them, and in the far East their flanks were shining in the rising sun. Great herds of them stood browsing in pastures where no man came nor need ever come, or plashed knee-deep by the brink of impassable rivers. And this, moreover, was the view of Ansell. Yet Tilliard's view had a good deal in it. One might do worse than follow Tilliard, and suppose the cow not to be there unless oneself was there to see her. A cowless world, then, stretched round him on every side. yet he had only to peep into a field, and, click! it would at once become radiant with bovine life.

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Coleridge on Democracy, Discussion, Philosophy and Education

Imagine to yourself the [a?] small number of pleasant cities with squares, public gardens and covered walks, all speaking one common language but each city an independent state and a Republic. Add to this a genial climate, sanguine constitutions, and the practice of duelling, we will suppose, utterly unknown. Each separate city indeed we may conceive as all too ready to act on its neighbour Republic by the terror of arms, but the citizens of each Republic were in the habit of using towards each other no other weapons

than those of argument and persuasion. All these little states are governed nearly in the same way by one great common council in which every adult male being a freeborn citizen has an equal right to deliver his opinion and to give his vote. In each little Republic the jealousy of its neighbours and the spirit of rivalry, ambition and revenge will not fail to produce a constant succession of important subjects for public debate— peace and war, defeat and victory, treaties made and treaties broken, election of generals and officers of state, impeachment, defence, punishment, remuneration. You will agree with me I think that the inhabitants of these little Republics could scarcely fail of becoming an argumentative, perhaps a disputatious, certainly a talkative race. When there happened to be no public news they would debate on subjects of a more private or a more general nature and whatever they conversed on their conversation would be marked by the lively manner, the eagerness and the argumentative cast which their public assemblies would have formed into a habit and second nature with them. In such a small state too the characters of men and consequently the knowledge of the springs and of the consequences of action would become of real and practical importance to each individual— these of course would form the subjects of frequent discussion in their public walks and porches. Some loud talker would often gather around him an increasing audience, each of whom would feel the right and not want the inclination to interrupt and question the main speaker. This sort of public disputes, arising thus accidentally, would among this lively and good-natured people form as frequent sources of amusement as among us a boxing match in the streets, or rather, to bring an instance less disgraceful to our national manners, think of our zealous field preachers and the audiences they collect around them, and instead of interrupted declamation conceive animated and pertinacious dialogue. From discussing the characters of their magistrates or generals, of their rich men and their parasites, they would by the very nature of the human mind and of human language be soon led to think of action in general, to generalize, to classify.

This source of amusement, once discovered, would become no doubt a favourite amusement with the more refined and peaceable citizens, while the turbulent and the coarse would crowd to the exhibition of defamatory farces or defamatory harangues. Such citizens as eminently gratified the former would be designated by some honorable name, and by what name more appropriately than by that of Philosophers or men who loved general truth without reference to personal attachment or personal hatred. Citizens who excelled in gratifying the baser passions would soon have their distinguishing title, Satyrists, Comedians or Agitators. Thus in our imaginary Republic we have already arrived at the origin of Moral Philosophy and Moral Philosophers.

We will now, if you please, imagine a very much larger multitude of men under a government purely and intensely despotic; one man sends out laws and the remaining myriads learn and obey them. Here men are acted upon incomparably more often and with incomparably greater intensity than they act. Of course they would attach little importance to themselves considered as the inhabitants of a particular state, little importance to their countrymen in general. The officers of state, military and civil magistrates, would indeed be necessary but they would all be the mere representatives and symbols of the one despot. As the Jews had different names for the Supreme Being, differing from each other in sanctity and awfulness yet all expressing the same Being, even so in this Empire each and every Magistrate

and Grandee would be as it were only a name more or less awful of the supreme Magistrate. This one man would indeed become of infinite importance to the whole community, but his agency would be of so unvaried a kind that it would never become the subject of active thought; so unvaried, so terrific and so exceedingly disproportionate to human agency in general that it would either preclude thought, which grounds itself on Analogies and the Classification of facts by their Resemblances, and lead inevitably to Superstition, which consists in the prostration of the mind before an unanalysed anomaly. Under a government such as we have been imagining Man would more often consider the action of Nature upon him than of Man, of the plants of Nature, of the heavenly bodies. His thoughts on these would be characterized however by the gloom resulting from the aforementioned anomalous human agency. He would imagine spiritual powers residing and acting in inanimate forms, a ghostly Bashaw in every plant possessing or imagined to possess unusual powers; a Sultan in every star, and all subjected to one supernatural Caliph omnipresent in his influence by an unlimited and invisible espionage. Still, however, to generalize, to classify, belongs to him as a man whether he be the slave of a Despot or the free citizen of a happy Republic. The facts and phenomena of Nature with all the appendages of superstition would soon be classified, and thus we have arrived at the origin of Magic, Theosophy and Cosmogony. By Magic, we understand a system of powers



residing in inanimate objects and of the fanciful means which were supposed capable of calling them into action; by Theosophy a system of intelligent spirits, malignant or gracious, believed to reside in the objects of sense and considered as the cause of the powers which we experience and on a proper solicitation of powers incomparably greater; by Cosmogony a system of the origination of all things, including an explanation of their present state. Let us suppose a series of benevolent and virtuous Despots. A portion of Republican security will be felt, a portion of Republican activity excited, but it will be naturally excited on the old stock of Ideas, and still from the essential nature of Despotism the characters and actions of Men will be less interesting than the phenomena of Nature and of their supposed supernatural causes— Magic and Cosmogony would gradually improve into a more rational system of Chemistry, the Arts of Healing and Astronomy and Theosophy would rise into grand, simple and awful contemplations respecting the Deity* in his relation to Man and Man in relation to Deity. You will have perceived that in the disguise of a supposition I have shadowed out to you the real history of the origin of Moral Philosophy in Greece, of Theology and Natural Philosophy in Egypt and India. The early Sages of Greece were Natural Philosophers and Mythologists for they were the importers of Eastern Philosophy and if we may allow ourselves a play upon words, Philosophers in Greece rather than proper Grecian Philosophers. Ethics and argumentative Metaphysics were the offspring of democracies whom superior courage and superior intellect had rendered victorious over Despots, to whom victory had given a season of security and whom industry, genius, and public spirit had placed in the possession of comforts and elegancies.

I observed that you smiled when I

*Note—The natural pride and the instincts of hope receiving little or no gratification in their present state under a despotism, the great mass of the inhabitants will be impelled to look forward beyond the grave. The doctrine of immortality is natural to man, it will be therefore common to republics and to despotism but the importance attached to the doctrine will be found, independently of imitation at least, incomparably more intense in the latter than in the former.

traced the origin of Moral Philosophy out of the talkativeness incident to petty Republics in a cheerful climate. In the present day it is possible that the individuals who talk least may think most but this must not be extended to nations in the ruder period of the human race and while language is as it were still under the potter's wheel. General talkativeness will mould the common language and give it strength, harmony, flexibility and copiousness even to the expression of the finest shades of meaning. Such a language may easily be made an instrument of deceit as well as of truth to a degree of which those languages must need be unsusceptible in which, as in most of the Oriental, the forms of connexion are few and simple and express merely annexment and disjunction, not the niceties of cause and consequence, division and exception. You cannot fail to see how great an influence this must have on philosophy in general, but it leads us at once to the particular subject of our present historical disquisition. Among a talkative people a great number will talk idly. Idle-talking will be felt as an evil and the opposite excellence acquire an additional value from the contrast. When men have already generalized on their actions and thoughts, they will be induced by their scorn of the evil to generalize on Discourse likewise; in other words as they had previously directed their attention to good and bad actions and had with more or less success reduced their characteristic differences to General Rules they would now find it convenient to make the same attempt with good and bad conversation and to reduce to General Rules the characteristic differences of rational and irrational, of true and deceptive, forms of connection. This is Logic and this would be the origin of Logic. In a Democracy, where the varieties of character and moral habit find sufficient space and free playroom, some men will gain a distinct and honorable name as teachers of truth. Others from rivalry and the mere lust of distinction will exert their ingenuity in starting verbal objections calculated merely to perplex conversation and in no wise to affect the inward conviction unless indeed where vicious habits literally decayed the intellectual faculties and moral feeling.

The first class as I have already told you were called Philosophers, the second, Sophists. These were considered as irreconcilable enemies. The Philosophers, and indeed all wise and good men, considered Sophists and Sophistry as an evil and a nuisance and Logic was invented as the proper amulet, as the specific medicine. But as weapons originally invented for defence may be converted into weapons of offence, so Logic in its imperfect state proved an Implement still more convenient to the Sophist than to the Philosopher. After the Battle of Chaeronea when the forms and habits of Grecian Democracy remained but all the great and practically important subjects of discussion were removed from their popular assemblies, the public mind became proportionally enfeebled. The Greeks, always great debators, now found their best amusement in incessant verbal disputation, the Sophists threatened to gain the upper hand, and for the specific purpose of preventing this evil Aristotle composed a more efficient Logic, his Organon, which in all essentials contains the system in present use, in the schools and universities of Europe, excepting those of Republican France where it has been made to give way to the Logic of Condillac.** I propose to draw out a sketch of the contents of this extraordinary work, but that you may be enabled the better to decide on the degree of genius requisite for its production it will be necessary for me to prefix some account of Logic as it existed before Aristotle under the different names of the Eleatic, Megaric and Socratic Logic. The permanent value of the work will be a subject of direct and separate discussion; but this question will be illustrated, no doubt, by a history of the attempts made to improve it by Lully, Ramus, Lord Bacon and Descartes; and last of all by Condillac. We shall answer two purposes by this; we shall make ourselves acquainted with an important part of philosophical history and at the same time impress upon our memory, and learn the habit of applying the rules of that art, the history of which we are attempting to detail.

**Note. It would be more accurate perhaps to say that the study of logic altogether is exploded in France, for Condillac's book is rather psychological than logical, but of this hereafter.



Few disputes in philosophical history have been more trifling than that respecting the invention of Logic and whether the honour is due to Parmenides or the Eleatic Zeno. Zeno of Elea, a city of Magna Grecia, flourished about [?] B.C. and was the scholar of Parmenides, who flourished about 505 B.C. If it were not too absurd to consider Logic in the Eleatic sense as having been invented by any one, we might fairly divide the honor between the master and the scholar and put an amicable conclusion to this important controversy. The characteristics of the Eleatic Logic have been preserved to us by Proclus in his Commentaries on Plato and by Laertius the Biographer. His Art of Logic consisted of three divisions, viz. of Consequences, Colloquies and Debates. His rule for the Deduction of Consequences was the following. Put any question or position— for instance, Was Zeno the inventor of Logic? You may either assume the affirmative or the negative, by which assumption there arise two hypotheses— if it be so and if not be so, for an assumption in only a supposition in the disguise of an assertion. To each of these suppositions there would attach three sorts of consequences, to wit, what may be deduced from them, what cannot be deduced from them and what can be deduced in respect of one thing and what cannot in respect of others, as it may be deduced that I am a tall man with respect to David, though a short one with respect

of Goliath; the same being applied both ways to the negative as well as to the affirmative, you thus gain six sorts of consequences; and because you may look at each of these in four different aspects— of the thing in respect to itself, of the thing in respect to others, of others in respect to the thing, and fourthly of others in respect to themselves— there arise of the whole of course twenty-four sorts of consequences. I will not emply your time so idly as to give you instances— it is sufficient to observe that this is called the Eleatic Method. Its manifest purpose is to prevent precipitate and premature assertions— a sort of technical direction to the understanding, how it may see any given subject in all its bearings, without which there can be no assurance in deduction. The next division is that of Dialogue or Colloquy— Dialectic, Dialogic or Dialogistic art, i.e., the art of arranging your thoughts well. Zeno no doubt was well aware that though it might be very serviceable to look at each subject in twenty-four bearings in your own mind, it would be very ridiculous bona fide thus to subdivide when you were talking with others. This Dialectic Art, the rules of which as given by Zeno have not been preserved to us as far as I can discover, became however so fashionable and was indeed so well adapted to Republican manners that almost all Philosophy was exhibited in Dialogue, a circumstance which at times gives an excellent grace to the writings

of Plato, but too often a prolixity which not only wearies out the audience, but perplexes and bewilders it. When well conducted it seems to me the best manner of introducing truth into the mind, but after the first elements have been taught, and the scholar's mind finds itself at ease with the terminology and the forms of reasoning, I should prefer the Aristotelian method improved by a greater richness of illustration.

In weighing the advantages and disadvantages of Dialogues, do not suffer yourself to be misled by the vulgar schoolbooks, histories, and religious tracts in the Dialogue form. These are not Dialogues, but dull exhibitions of a sort of Ventriloquism. One man is speaking all the while, but every now and then he alters his voice into a semi-squeak and would fain make it appear to proceed from some doll or man of straw at some little distance from it. To instruct in the form of dialogue the one great rule is the following: Remember your own state of mind when the subject was new to you— the different passions of premature contempt, undue admiration, imaginations that you had understood what you had not or had only imperfectly understood, your objections, your difficulties— place these in actual language in the mouth of the scholar and answer them as naturally in your own character and present state of mind and you will have formed a true Philosophical Dialogue for the purposes of instruction which does not require the representation of different characters, but of the same mind in two different states made co-present by the natural fiction of two persons, the one actually in that state in which the other must formerly have been if we take minds at their averaged degree of power. There does not exist a more important rule nor one more fruitful in its consequences, moral as well as logical, than the rule of connecting our present mind with our past— from the breach of it result almost all the pernicious errors in our education of children and indeed of our general treatment of our fellow creatures. It is indeed the only cure of uncharitableness, intemperate expectation and feelings of Positiveness imposing themselves on the mind for a sense of Certainty.

From the Bristol Notebook, Ch. 1.

Last July, the Kansas City Star reported at length on a philosophy for children program in operation at Loretto, a private school in Kansas City. Taught by Prof. Henry Frankel, of the philosophy department at the University of Missouri, Kansas City, and by Mrs. Nelda Gosnell, the students' regular teacher, the course was devoted to ethical inquiry, and involved students in grades 6-8. One bit of dialogue cited by the author of the article (Andrew C. Miller, Education Editor of the Star) is especially worthy of note. Frankel had asked what was meant by the phrase, "to know oneself":

He means you should know your morals," answered one student. "He says you should know your rules, but live by your standards," added another. "But you have to know why you believe in your standards," countered a third.

The first of the two articles that follow is by Nelda Gosnell; the second is by Henry Frankel.

Can We Help Children Think?

Nelda Gosnell

One day last year some of my colleagues were attracted out of their rooms to find me leaning against my door — beaming in spite of the fact that the sound behind me was outrageous, even for one of *my* classes. What were my students doing? They were thinking. They were thinking about and trying to determine whether or not two bodies can occupy the same space. And many were arguing for their side. Loudly and logically.

Many other sessions of this class were not nearly as loud. In fact, some were filled with agonizing silences because the question they were pondering was more elusive — they couldn't stand on each other's feet to determine the difference between right and fair.

After sitting in on one of these classes, a mother who was looking for the right

school for her creative child, said to me, "This is the darndest class I've ever seen. You are doing here what we have to do at home to *undo* what they've been doing at school."

What was she referring to? She was talking about more than not giving the students the answer; she was talking about giving the students tools to help them think.

My friend, Hank Frankel, and I team taught the course to a group of 6th, 7th, and 8th graders. We based it primarily on the second of a series of books by Matthew Lipman and the Institute for the Advancement of Philosophy for Children. These books are specifically designed to teach logical thinking to children.

Sound heavy?

The thought processes are heavy, I

guess, if you think a human being should wait until she/he is at least 17 or 18 years old to learn to think logically.

Actually, my kids didn't get the heavy bit. They thought the class was fun.

Lipman's books interest students because they're about kids like themselves facing an imperfect world. In *Harry Stottlemeier's Discovery*, the first book, a group of typical (is there such a being?) 5th and 6th graders — of mixed social and ethnic backgrounds — do their thing *and begin thinking about thinking*. We find the same cast in junior high in *Lisa*, the second book. Finally, in *Suki*, our characters are high schoolers dealing with budding romances and moral dilemmas.

The books are appealing, like all well-written adolescent fiction, because the people in them are real — the kids are

doing things that kids do, facing problems and decisions that kids face. The pages are filled with rewarding and frustrating family interactions, accidents, nightmares, marriage and divorce, live-in grandparents, death, peer pressures, adolescent sexual attractions, and the ongoing flux we all experience — the *change* that takes place naturally with time in our relationships with family and friends.

In the Lipman books, as Harry, Lisa, and Suki and their friends grow up physically, they also grow in their ability to organize their thoughts, to evaluate logically, and to inquire into — to question — the ethics involved in life experiences. They do this not through studying the great philosophers, but, rather, through trying to explain ordinary experiences.

Harry, in *Harry Stottlemeier's Discovery*, asks questions in class as all kids do — but in this case his teacher and parents help Harry find possible answers. This is not true for many kids in the infamous “real world” where they are often told there’s no time for questions or that a question is “off the topic.” Therefore, the dialogues in *Harry Stottlemeier* serve as models for discussions in the classroom.

In *Lisa*, the section of class Hank and I have taught, the kids are 7th and 8th graders (my favorite age), and they are struggling with changing bodies and changing perceptions of the world. They find themselves having to make decisions and they are realizing that these decisions are becoming increasingly more difficult to make and require, increasingly, more personal reflection. The students in the class, by identifying with Harry, Lisa and the others, begin to recognize and ponder moral issues in their own lives. And, hopefully, with guidance, the children in the classroom begin an open-ended, continuous consideration of the values, standards and practices by which people live and that in doing so they learn to recognize that alternatives exist and that other people and their ideas deserve respect. The students learn the importance of *and the relevance* of clear logical thinking applied to the experiences of their own lives and that such thinking offers new options in the problems they encounter.

The next book is *Suki*. As will happen, the kids are growing up and are in high

school now. I must admit that *Suki* is my favorite of the three. Our friends are interacting around a new English class in which the teacher is something of a wierdo.

I can identify with this situation.

Mr. Newberry, the teacher, is teaching appreciation of literature and the techniques of composition through “the search for meaning” — meaning of words, meaning of thoughts, and ultimately, of course, meaning of lives. The book begins:

The first day in Mr. Newberry's English class had been uneventful. Millie said afterwards she thought Mr. Newberry was cute, and Randy claimed the teacher kept giving him mean looks throughout the class. To Fran, the teacher seemed somewhat distracted. “Maybe we should try to wake him up,” she ventured.

But when the class began the next day, Mr. Newberry tapped his fingers sharply on the desk and said, in his rasping voice, “Okay, let's get started. You're not here just to learn to read and write. You're here to learn to read and write literature.”

Mickey smirked and said to Jane, “There's going to be nobody here but us authors!”

“In these days,” Mr. Newberry continued, “when nothing unmentionable goes unmentioned —”

Laura scowled, “What's he *talkin'* about?”

“— we have to ask ourselves some hard questions: Do we have anything to say worth saying? If so, how can we say it well?”

The class was silent now as if being scolded, although no one was conscious of having done anything wrong. They waited for the teacher to resume speaking, but he stared out the window. Then he turned quickly and said, “More importantly, we've got to learn how to tell the difference between what's meaningful and what's meaningless.”

And so the class progresses. The kids work or don't work on Newberry's assignments, fall in and out of love, disagree with their parents, make decisions about whether or not they will stay in school, *and* develop their ability to reason about values and to think for themselves.

Newberry seeks to have students define the “Quality of Existence,” the “Shock of Existence,” and the “Logic of Existence” through examples of literature, through writing exercises and through thoughtful class discussions.

During the course, the class considers the difference between the verbs “to be” and “to exist”, and muses upon the thought that “freedom has meaning only in contrast to restraint.” At one point, Suki asks, “Does prose communicate and poetry illuminate?” The subplots involve Suki and Harry's discovery of each other and Harry's beginning understanding of the reality of the meaning of the value of another person's life.

Heavy stuff for the middle school? Maybe. But they can handle it.

My teaching set-up is ideal for this kind of learning. I teach in an open-classroom middle school. The students are accustomed to participating actively in class discussion and to having their ideas treated with respect. Lipman stresses the “process of discussion,” so do we. It is significant that the students call us, the teachers, by our first names — an indication that we act not as instructors, but, rather, as catalysts to the students. I encourage children to discover ideas or insights or beauty or ugliness for themselves, but I am willing also to tell them some of the conclusions others have reached or the reasons why general beliefs exist — hopefully, I do this impartially and knowledgeably. I must admit that I also believe that a sensitive teacher can, at times, give her/his own personal point-of-view and that it is better to name it *as such* than to disguise it as something else. Beware. This is dangerous. If you are audacious enough to do this you must also be prepared to defend your views, participate fairly in a discussion of the views and also be prepared to change your mind.

The school in which I teach encourages individual decision-making as one of the most valuable life skills and our philosophy jells with Lipman's in that we agree that the amount of factual information a child acquires “is less essential to his education than the development of his intellectual judgment.”

One can, of course, teach educated thinking in a situation that is less than ideal to begin with. A teacher creates his/her own atmosphere. Discussions of values, concerns, questions and observations can become more than the mere *expression of opinions in a group*. When people listen, think, and reevaluate, much more happens. A sense of mutual

respect is established, and that respect, in turn, creates an "ideal situation" for serious thinking. An ideal situation for — if you will — the great philosophical themes.

When students reflect upon other people's questions and answers; when students ponder their own views in the light of someone else's insights, then they begin to grasp a more objective view of the way things are and the way things might become. When you can help children learn to reinforce their thoughts with reasons and when you can help them to be impartial, you can help them to think.

By Henry Frankel

During the spring of 1978 Nelda Gosnell and I taught a mini-course for 6th through 8th graders using Lipman's material. The course met for forty minutes five days a week for six weeks. I met with the students three times a week and Nelda was present at every session. What I should like to do in this note is summarize what occurred and offer several impressions.

AIMS: Our general aim was to promote philosophical discussion and interest on the part of the students. We wanted them to develop and/or augment their sensitivity for giving reasons for their beliefs. The only specific technique I wanted the students to learn was how to use Venn diagrams as a means for testing the validity of "Aristotelean" argument forms. Otherwise, we simply planned to use Lipman's *Lisa* as a springboard for philosophical discussion — due to the shortness of the course we used only *Lisa*. We did not attempt to teach the students a particular philosophical position. Obviously, certain positions were presupposed, but we were not interested in producing young nominalists, realists or idealists.

CONTENT: I spent the first two weeks introducing the students to notions such as 'validity,' 'soundness,' the square of opposition and Venn diagrams. We also began reading *Lisa* during the first week. When the course was over, we still had several chapters of

Lisa left. The students completed several exercises on Venn diagrams, and wrote short essays (300 to 500 words) on the following topics: (1) Describe an occasion when you felt unfairly treated. Here they were supposed to describe what happened, and explain why they felt they had been unfairly treated. (2) Discuss a moral-dilemma that they had personally experienced, isolate the issues involved, explicate the various arguments employed, and re-evaluate the various arguments. (3) Delineate what distinguishes the present from the past and future, and discuss the differences among such activities as remembering, perceiving and predicting. All of these assignments evolved out of class discussions on various episodes in *Lisa*.

Impressions and Remarks

- By the end of the course almost every student could use Venn diagrams and had a fairly adequate understanding of the notions of 'validity' and 'soundness.' Indeed, they understood how to work with 'validity' and 'soundness' after the first few lectures — being no different from college students — but were unable to use Venn diagrams until near the end of the course.

- As to be expected the quality of the various essays was uneven. Most of them had little problem describing some past experience, but almost all of them had difficulty in analyzing what was at issue. Of course, they improved after the first assignment. In general, class discussion was at a higher level than their written work. Occasionally, what occurred was as good as what typically goes on in a college-level introductory philosophy course.

- Both Nelda and I spent most of our time clarifying their positions rather than advancing our own, although I sometimes would buttress positions or introduce additional factors to enhance the discussion. This doesn't mean that we didn't let them know that they were wrong when they were. But, it does mean that we didn't spend the period lecturing to them. Our basic *modus operandi* was to discuss what went on in the given chapter, isolate one or two themes, often sketch out a problem, and let them hash it out.

- I was surprised that the students so thoroughly enjoyed the material. Most

of them were interested and willing to work through various assignments. A strong point in favor of using Lipman's material is that it promotes and sustains their interest. He has an uncanny ability to introduce philosophical issues in a context which is interesting and meaningful to kids. His use of the novel as a medium for introducing students to philosophical issues is highly successful. *Lisa* was interesting to the students in and of itself, and the philosophical content did not get lost. The students found it easy to identify with the various characters and situations in the novel, and to apply what was going on in the novel to their own lives. Students became somewhat introspective and attempted to uncover, develop and evaluate personal standards. It is certainly to Lipman's credit that he seems to know what is of concern to children of this age, and is able to present the material so successfully.

- What I found least satisfactory about Lipman's material is his use of Aristotelean logic. I see no reason why he could not have used a bastardized version of the propositional calculus. Rather than have the children in the novel figure out valid Aristotelean argument forms, the square of opposition and standardization of English into Aristotelean logic, he could have had them investigate similar issues with the propositional calculus. They could have isolated different argument forms, developed truth tables, gone through some standardization and discussed various propositional equivalences. I say this especially because Lipman sneaks in some propositional calculus. Unfortunately, the logic sections remained, at least in our class, fairly isolated from the other material.

- By the end of the course the students had a better appreciation for giving reasons, would attempt to supply reasons when appropriate and thereby became more assertive: They often felt that they had good reasons for their opinions.

Nelda and I plan to offer a similar course during the spring of 1979. Needless to say, I believe there is much merit in Lipman's approach.

The Problems in Developing Critical Thinking

Hilda Taba

Hilda Taba was Director of the Center of Intergroup Education at the University of Chicago. She was the author of numerous works on curriculum development, and was largely responsible for the organization of the Taba Social Studies Curriculum, which was a pioneering venture in combining critical thinking skills with social studies materials. Her experimental work in teacher-training was also both original and impressive.

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One scarcely needs to defend the importance of critical thinking as a desirable ingredient in human beings in a democratic society. No matter what views people hold either of personal growth or of desirable society— they do at least agree in general terms that people have to learn to think. Ever since the precedent set by the Eight Year Study, some reference pertaining to critical thinking is practically a “must” for statements of objectives in curriculum manuals. In a society in which things

change fast people cannot depend on routinized behaviour or traditions in making decisions, whether on practical every-day matters, moral values or political issues. In a country in which the destiny of the nation is presumably hewed from the will of the people— there is a natural concern that individuals be capable of making intelligent and independent decisions about social values and means of achieving them.

Yet, the task of developing critical thinking in adolescents and young people is one on which schools perhaps have done less than they should or could— and for a variety of reasons.

For one thing, too many teachers and schools have taken too simplified a view of critical thinking. They have therefore tried to concentrate the training for it in a few simple steps— such as the five steps in problem solving— and called it a job.

Not a Simple Task

Critical thinking is not a simple

gadget that can be taught and acquired on the spot in one lesson, unit, or even in one single subject. It is somewhat like a way of life— involving many dispositions, skills and abilities in treating ideas and facts. Each of its elements requires time for continued practice and opportunity to do so in a variety of contexts. It is, for example, not a simple matter to learn to draw adequate generalizations from factual or experiential data. Nor is it possible to learn this process adequately by concentrating exclusively on problems and materials of science— and excluding all social materials which present different obstacles to clear thinking. For example, research in recent years has shown beyond doubt that clear thinking in all social areas involves also ability to look at feelings and attitudes as facts. A training limited to conceptual aspects alone seems not to produce people capable of critically thinking about social and human problems.

Furthermore, the ability to think critically is not a process that can be taught all at once, no matter how thoroughly it is done at that time. We are beginning to think in terms of developmental processes in other areas of growth, and it is necessary to see critical thinking as a developmental process also, in which there is a psychological learning sequence that students need to follow. Because we have not considered thinking as a developmental process, in which certain experiences are necessary preliminaries to others, we have often tried to teach thought processes in sequences that make it impossible for students to acquire these processes. Forcing generalizations prematurely in discussions is one example of such an “upside down” sequence. This is illustrated in the following quotation:

“The nature of teachers’ questions sometimes forced general appraisal or judgment ahead of allowing the experience of the group to come into play and to be made cumulative, or before allowing a kind of refreshing or memory on details to prepare for generalized judgment. This happened in an eighth grade where, to conclude a study of British government, the teacher asked, without success, that pupils tell how it was like and

unlike the United States government. Later analysis by the teacher showed that the difficulty lay in the fact that these pupils had not studied comparable aspects of the United States government and that no recapitulation of those aspects had preceded comparison.

Often the mistake is in starting analysis too soon by pressing "why" questions after each student's statement. For example, if only one person describes an incident, gives a fact, or presents an idea, and a question as to "why" (explanation), or "where does this belong" (classification) follows it immediately, discussion is cut off, as (a) only one person in the class is involved and could respond and (b) the basis for judgment is limited and hence such reactions as come are meager in content. If, instead, the discussion is kept open by asking several students to add on the same level as the first one, more people can make connection with the idea, and they will have a fuller content from which to respond and to think about the "why". Many students have thus had a chance to contribute particulars and to watch and partake in the building up of concepts. Each student gets involved because "his particular" becomes a part of the concept.

For example, in one class, pupils were reporting on their interviews on what people meant by *rights*. One pupil said that a religious leader whom she had interviewed listed the opportunity to hold jobs and the right to vote for the party in which one believed. Instead of these two being placed in a list of rights that other pupils had obtained from their interviewees—businessmen, labor leaders, teachers—and then all of the listed rights were represented, the teacher questioned this single statement thus: "What criticism would you make of these?" Appearing when it did, this question was premature and cut off the class from listing their findings and thinking about them as a group. Instead, they became busy "finding out" what the

teacher might have had in mind as a proper definition of rights. Many teachers attempt to shortcut the development of generalizations by themselves giving the pupils the concept or generalization at the beginning."¹

Third, critical thinking cannot be developed adequately when carried on by highly individualistic processes. It is most fruitfully carried on in groups in which a range of ideas can be matched, and a variety of background can be pooled to develop a fuller and richer picture. Yet, relatively little thought has been given to the requirements necessary to make group discussion anything more than a rather disorderly battle of wits and of differing opinions. More experimentation is needed on how to harness differences in knowledge, experience and attitudes towards evolving richer more realistic ideas, how to introduce comparisons and contrasts to give validity to group thinking and how to integrate conflicting ideas and experiences into fuller comprehension. It is not uncommon today to vote on conclusions or to allow the ideas of those who speak the loudest and mostest to carry.

However, a clearer understanding of what critical thinking consists of and how to provide developmentally for its growth is not enough, important as that is. There are many conditions in our schools which combat realistic work in developing young people with an inclination to think critically and the techniques and habits for doing so. Many of these have to do with the ways we organize teaching and curriculum.

Obstacles to the Development of Critical Thinking

One overwhelming difficulty lies in the fact that curriculum content is usually organized for purposes other than facilitation of critical thinking. Often the organization creates a setting for learning that is an outright "obstacle course" for thinking at all, let alone thinking critically. For example, one cannot learn to think without having something important to think about, and some ideas and concepts to think with. We need, therefore, a curriculum which is organized around some concepts and ideas, and in which materials are

selected and combined for teaching so that they contribute to the development of these ideas and their use. Thus, in teaching critical thinking in American History, it makes a great deal of difference whether it is organized by concepts to be developed or by chronological sequence or areas of events. One can learn about people coming to America as a series of rather curious facts about Puritans, Germans, or Irish, or one can examine the stream of newcomers to America in the light of some idea such as that American society is a multigroup society, composed of peoples of different sub-cultures—or by postulating such questions as what are the relative difficulties in accommodation to life in the United States for people coming from Anglo Saxon or non-Anglo Saxon backgrounds.

The latter method of organizing content about immigration gives meaning and direction to interpretation of facts, requires comparison and contrasting of events in various historic periods. It furnishes some criteria for the selection of pertinent facts and for their appraisal. None of this is implicitly involved in organization that teaches everything about Puritans in one sequence and everything about later immigrants in another one.

The simple fact is that if curriculum itself is organized as a hodge podge of information, there is no realistic foundation for developing ideas or for thinking with them. No matter what methods are used, attention to critical thinking will remain incidental. Both pupils and teachers will be thrown back upon recall as the chief mental function—either recall of heterogeneous details, or recall of verbalized generalizations that have no meaning for them.

The fact that we tend to lay out curriculum by designating areas to be covered, and not at the same time also the problems to be dealt with, is another handicap. During the war one class for example, had chosen Japan for study. When the outline of what was to be studied was completed, it was wonderfully comprehensive. Everything from various dynasties to methods of burying the dead was included. But there were two difficulties. First, the outline covered so much that a year's study was needed if justice was done to it. Second,

the pupils complained that the books contained too much on every topic and they had no way of knowing what was important and what was not. Only after this class decided that the central purpose for studying Japan was to see how it became an important enough nation to challenge Western powers in war, was it possible to reduce the outline to a reasonable size and to begin to develop criteria by which to select facts and ideas in books that were pertinent and those that were not. Thus, the selection of a problem to deal with avoided the kind of crowding of curriculum in which so much is covered that it is impossible to think much about any of it.

A third problem rests with the sequence of curriculum. The usual method of developing curriculum sequence is to plan it in terms of a procession of different subjects to be covered one after another. Seldom, if ever, is this sequence planned to give continuity also to the development of such important objectives as the growth in critical thinking, and by developmental steps. High school students are often expected to handle abstract generalizations in a given field, without first having had an opportunity to handle experiential materials in the same area through which to establish meaning for these abstractions. They are, for example, expected to be logical and insightful about "democratic freedoms" without sufficient exploration either of democracy or freedom in contexts that give them concrete meanings. They are expected to understand the problems of rights as expressed in the Magna Carta or the Declaration of Independence without first having had a chance to explore the intellectual and emotional meaning of "having a right" in connection with something they can really look at and analyze concretely.

If critical thinking is considered as a serious objective, one needs to provide sequential development for it throughout all grades. Secondary schools cannot do justice to it, if there is no continuity on which to build.

The Need For Practice

Thinking is one thing one cannot learn except by doing. Whatever elements of it one considers — be it deciding what is important to think

about, be it analysis of facts, be it generalizing, logical steps from assumptions and facts to conclusions, or comparing and contrasting different sets of facts— they can be learned only by consistent and repetitive practice. They cannot be learned by precept. Moreover, they can be learned only by practice in a variety of contexts. Cultivation of a causal form of thinking— the inclination and ability to see human behavior in terms of multiple causes requires a persistent practice of figuring out what has led to a give behavior in a variety of situations.

To provide such continuity of practice and in a sufficient range of contexts under present conditions of highly divided subjects, some means have to be found for teamwork towards common objectives across several subjects. For example, a minimum range for developing the concept of multiple causation of human behaviour might include explorations of personal behaviour— presumably the subject for guidance, examination of how people behave in institutional contexts— presumably the subject for social sciences, and the study of the role of values and motives in behaviour— presumably the subject for literature. Somehow the emphasis in these different areas need to be focused towards the same idea of multiple causation and the methods of thinking learned in each made consistent with each other.

Finally to state an old truth over again— schools stress inevitably those things that are emphasized in evaluation programs. In spite of the splendid experimental work done by the Eight Year Study, there is little evidence that school systems or testing agencies have taken seriously the evaluation of critical thinking. By and large evaluation of achievement is still confined to recall of information and academic skills quite out of balance with other important areas of achievement, among them critical thinking.

Presumably the development of critical thinking requires teachers who themselves can think. Yet, many teachers, in their own training have never had the opportunity to do anything but follow the routines of mastering lectures, texts or sources. Those few who can think in terms of ideas, who can marshal facts around important concepts, or who know how to solve intellectual problems

have by and large stumbled on it on their own. Obviously, this "natural selection" inevitably limits the number of critical thinkers among teachers and makes their own processes stumblingly experimental rather than surefooted. The field workers in Intergroup Education,² in which organizing curriculum and teaching around focusing ideas was a requirement, repetitively discovered that large groups of teachers could not state ideas or concepts nor recognize them when they were stated. They did not have a faintest notion, furthermore, of how to select from what they knew about an area relevant to material for either developing or illustrating these ideas. They needed much training in both processes.

Summary

To sum up what seems to be needed for a more realistic and adequate development of critical thinking:

1. A clearer and a more comprehensive concept of what critical thinking involves and what are the psychological factors and principles that affect learning to think critically. We need to explore the processes of thinking as a constellation of many processes, and to examine it in the light of needed developmental steps.

2. The very organization of curriculum both in a given subject and across subjects has a bearing on how adequate are the opportunities for learning to think clearly, objectively and critically. Schools need to develop a framework of organization that facilitates critical thinking in place of hindering it. Perhaps educators can begin to see that there is no conflict between teaching content and developing critical thinking, and that content which does not contribute to the development of concepts and which requires "mastering" by processes other than those aiding critical thinking, is not worth its place in the curriculum.

3. Some attention is needed to prepare teachers to use content materials for ideas and to carry on processes of thinking as well as in the psychology of learning to think.

1. "Curriculum in Intergroup Relations," *Intergroup Education in Cooperating Schools*. American Council on Education. pp 130-31.

2. *Intergroup Education in Cooperating Schools and the Center for Intergroup Education*, University of Chicago.

On Wit and Judgment

Maria Edgeworth and Richard Lovell Edgeworth

As one reads the late 18th century works of Richard and Maria Edgeworth, one is impressed by the pedagogical insights regarding children's potential to reason well in a constructive and rational environment. The Edgeworths cause one to wonder why educational thinkers had to wait until the 20th century to heed what they were saying in 1798, and why so much time and energy was expended to reinvent what the father and daughter had already discovered through experimentation with children.

Richard Edgeworth was the author of Professional Education, and co-author, with his daughter, Maria, of Practical Education. The chapter on wit and judgment reprinted below is from the latter work, the title of which constituted a challenge to the prevailing educational methodology of the day. There is no doubt that the Edgeworths were strongly influenced by Rousseau's emphasis on cultivation of the senses in the early years as well as on beginning with students' interests and experience. However, there is much of Rousseau that the Edgeworths did not accept. "Children should not be thus suffered to run wild like colts for a certain time and then be taken and broken in by the most harsh, violent and unskillful

methods." Parents should begin as early as possible to cultivate the habits of good reasoning and judgment coupled with a respect for the seriousness of intellectual work. "The truth is that useful knowledge cannot be obtained without labour, that attention long continued is laborious, but without this labour nothing excellent can be accomplished." Rather than extrinsic rewards, children should be allowed to experience success. "Rousseau rewards Emile with cakes when he judges rightly; success we think is a better reward." Practical Education was also highly influenced by Locke and Priestley. Locke's psychological principle of utility serves as the criterion for estimating the value of teaching a particular subject to a child. The Edgeworths agree with Locke that education should focus on the cultivation of good reasoning habits, daily improvement and the formation of character in the early years. (Maria also the author of several novels for children, was aware of the novel as a didactic medium for teaching various disciplines, including ethics.)

In the preface to Practical Education, the Edgeworths state, "We have chosen the title of Practical Education to point out that we rely entirely upon practice and experience." They were convinced that all children are capable of reasoning well. Children do not lack the capacity to reason; what they lack is experience. If one is interested in helping children make better judgments, one should increase their knowledge of the world and help them cultivate the tools of inquiry and experimentation to understand their world. Judgment is dependent upon experience, because it rests on the ability to compare causes and effects. And it is the task of education to provide the kinds of experience that will enable children to observe first hand the world around them.

If children are closely observed, say the authors, they can be seen to reason inductively and deductively before they can express their conclusions in words. There is a strong connection between talking and thinking, and it was for this reason that the Edgeworths stressed the conversational mode of teaching. But this conversation must not be nonsense. Teachers should pay careful attention to thinking logically, giving reasons for one's views and using words and concepts that both student and teacher understand.

According to the Edgeworths, observing, comparing, discussing, inferring, deducing should all precede judging. And one must remember that one is interested in producing skilled judges, not advocates. Teachers should withhold their own opinions when questioning children, in order to encourage them to think for themselves. They should never play with children's lack of experience by inducing them to believe fantastic tales, by teasing

or by ridiculing them. Emphasis should be on inquiry for the purpose of discovering truth, not on the use of clever arguments or witty insights. Children should be praised for candor, good sense, valid perceptions, impartiality, and comprehensiveness rather than for advocacy of a particular view. They should never be ridiculed for changing their minds if they have good reason for doing so. Teachers should train their ears to seize upon subjects that naturally arise in children's conversations and utilize these themes in helping children reason better through dialogue, rather than formally preparing the discussion beforehand.

At a time in which educational theory was sharply divorced from educational practice, when the role of conversation in education was only dimly grasped by a few, when the function of the curriculum as the core and armature of the educational process was generally misunderstood, when the child's ability to reason was overlooked in favor of his or her naturalness and spontaneity, the Edgeworths were able to organize a comprehensive work on pedagogy which exhibited none of these failures. In its sensible tactful blending of practice and theory, its avoidance of ideology, its respect for children as persons, its sound grasp of pedagogy and the relevance of philosophy to children's education, Practical Education is remarkable evidence of the pedagogical wisdom which we have found it possible to overlook in the course of the last two centuries.

It has been shewn, that the powers of memory, invention, and imagination, ought to be rendered subservient to judgment; it has been shewn, that reasoning and judgment abridge the labours of memory, and are necessary to regulate the highest flights of imagination. We shall now consider the power of reasoning in another point of view, as being essential to our conduct in life. The object of reasoning is to adapt means to an end, to attain the command of effects by the discovery of the causes on which they depend.

Until children have acquired some knowledge of effects, they cannot inquire into causes. Observation must precede reasoning; and as judgment is nothing more than the perception of the result of comparison, we should never urge our pupils to judge, until they have acquired some portion of experience.

To teach children to compare objects exactly, we should place the things to be examined distinctly before them. Every thing that is superfluous should be taken away, and a sufficient motive should be given to excite the pupil's attention. We need not here repeat the advice that has formerly been given respecting the choice of proper motives to excite and fix attention; or the precautions necessary to prevent the pain of fatigue, and of unsuccessful application. If comparison be early rendered a task to children, they will dislike and avoid this exercise of the mind, and they will consequently shew an inaptitude to reason: if comparing objects be made interesting and amusing to our pupils, they will soon become expert in discovering resemblances and differences; and thus they will be prepared for reasoning.

Rousseau has judiciously advised, that the senses of children should be cultivated with the utmost care. In proportion to the distinctness of their perceptions will be accuracy of their memory, and probably, also the precision of their judgment. A child, who sees imperfectly, cannot reason justly about the objects of sight, because he has not sufficient data. A child, who does not hear distinctly, cannot judge well of sounds; and, if we could suppose the sense of touch to be twice as accurate in one child as in another, we might conclude, that the judgment of these children must differ in a similar proportion. The defects in organization are not within the power of the preceptor; but we may observe, that inattention, and want of exercise, are frequently the causes of what appear to be natural defects; and, on the contrary, increased attention and cultivation sometimes produce that quickness of eye and ear, and that consequent readiness of judgment, which we are apt to attribute to natural superiority of organization or capacity. Even amongst children we may early observe a considerable difference between the quickness of their senses and of their reasoning upon subjects where they have had experience, and upon those on which they have not been exercised.

The first exercises for judgment of children should, as Rousseau recommends, relate to visible and tangible substances. Let them compare the size

and shape of different objects; let them frequently try what they can lift; what they can reach; at what distance they can see objects; at what distance they can hear sounds: by these exercises they will learn to judge of distances and weight; and they may learn to judge of the solid contents of bodies of different shapes, by comparing the observations of their sense of feeling and of sight. The measure of hollow bodies can be easily taken by pouring liquids into them, and the comparing the quantities of the liquids that fill vessels of different shapes. This is a very simple method of exercising the judgment of children; and, if they are allowed to try these little experiments for themselves, the amusement will fix the facts in their memory, and will associate pleasure with the habits of comparison. Rousseau rewards Emilius with cakes when he judges rightly; success, we think, is a better reward. Rousseau was himself childishly fond of cakes and cream.

The step which immediately follows comparison, is deduction. The cat is larger than the kitten; then a hole through which the cat can go, must be larger than a hole through which the kitten can go. Long before a child can put this reasoning into words, he is capable of forming the conclusion, and we need not be in haste to make him announce it in mode and figure. We may see by the various methods which young children employ to reach what is above them, to drag, to push, to lift different bodies; that they reason; that is to say, that they adapt means to an end, before they can explain their own designs in words. Look at a child building a house of cards: he dexterously balances every card as he floors the edifice; he raises story over story, and shews us that he has some design in view, though he would be utterly incapable of describing his intentions previously in words. We have formerly endeavoured to show how the vocabulary of our pupils may be gradually enlarged, exactly in proportion to their real knowledge. A great deal depends upon our attention to this proportion; if children have not a sufficient number of words to make their thoughts intelligible, we cannot assist them to reason by our conversation, we cannot communicate to them the result of our experience; they will have a great

deal of useless labour in comparing objects, because they will not be able to understand the evidence of others, as they do not understand their language; and at last, the reasonings which they carry on in their own minds will be confused for want of signs to keep them distinct. On the contrary, if their vocabulary exceed their ideas, if they are taught a variety of words to which they connect no accurate meaning, it is impossible that they should express their thoughts with precision. As this is one of the most common errors in education, we shall dwell upon it more particularly.

We have pointed out the mischief which is done to the understanding of children by the nonsensical conversation of common acquaintance. "Should you like to be a king? What are you to be? Are you to be a bishop, or a judge? Had you rather be a general, or an admiral, my little dear?" are some of the questions which every one has probably heard proposed to children of five or six years old. Children who have not learned by rote the expected answers to such interrogatories, stand in amazed silence upon these occasions; or else answer at random, having no possible means of forming any judgment upon such subjects. We have often thought, in listen-

*"Children will never
reason if they are
allowed to hear or
to talk nonsense.*

ing to the conversations of grown up people with children, that the children reasoned infinitely better than their opponents. People who are not interested in the education of children do not care what arguments they use, what absurdities they utter in talking to them; they usually talk to them of things which are totally above their comprehension; and they instill error and prejudice, without the smallest degree of compunction; indeed, without in the least knowing what they are about. We earnestly repeat our advice to parents, to keep their children as much as possible from such conversation: children will never reason if they are allowed to hear or to talk nonsense.

When we say, that children should not be suffered to talk nonsense, we should observe, that unless they have been in the habit of hearing foolish conversation, they very seldom talk nonsense. They may express themselves in a manner which we do not understand, or they may make mistakes from not accurately comprehending the words of others; but in these cases we should not reprove or silence them, we should patiently endeavour to find out their hidden meaning. If we rebuke or ridicule them, we shall intimidate them, and either lessen their confidence in themselves or in us. In the one case we prevent them from thinking, in the other we deter them from communicating their thoughts; and thus we preclude ourselves from the possibility of assisting them in reasoning. To show parents the nature of the mistakes which children make from their imperfect knowledge of words, we shall give a few examples from real life.

S—, at five years old, when he heard some one speak of *bay* horses, said, he supposed that the bay horses must be the best horses. Upon cross-questioning him, it appeared that he was led to this conclusion by the analogy between the sound of the words *bay* and *obey*. A few days previous to this his father had told him, that spirited horses were always the most ready to obey.

These erroneous analogies between the sound of words and their sense frequently mislead children in reasoning; we should, therefore, encourage children to explain themselves fully, that we may rectify their errors.

When S— was between four and five years old, a lady who had taken him upon her lap playfully, put her hands before his eyes, and (we believe) asked if he liked to be blinded. S— said no; and he looked very thoughtful. After a pause, he added "Smellie says, that children like better to be blinded than to have their legs tied." (S— had read this in Smellie two or three days before.)

Father. "Are you of Smellie's opinion?"

S— hesitated.

Father. "Would you rather be blinded, or have your legs tied?"

S— "I would rather have my legs tied not quite tight."

Father. "Do you know what is meant

by *blinded?*"

S—"Having their eyes put out."

Father. "How do you mean?"

S—"To put something into the eye to make the blood burst out; and then the blood would come all over it, and cover it, and stick to it, and hinder them from seeing, I don't know how."

It is obvious, that whilst this boy's imagination pictured to him a bloody orb when he heard the word *blinded*, he was perfectly right in his reasoning in preferring to have his legs tied; but he did not judge of the proposition meant to be laid before him; he judged of another which he had formed for himself. His father explained to him, that Smellie meant blindfolded, instead of blinded; a handkerchief was then tied round the boy's head so as to hinder him from seeing, and he was made perfectly to understand the meaning of the word *blindfolded*.

In such trifles as these it may appear of little consequence to rectify the verbal errors of children; but exactly the same species of mistake will prevent them from reasoning accurately in matters of consequence. It will not cost us much trouble to detect these mistakes when the causes of them are yet recent; but it will give us infinite trouble to retrace thoughts which have passed in infancy. When prejudices, or the habits of reasoning inaccurately, have been formed, we cannot easily discover or remedy the remote trifling origin of the evil.

When children begin to inquire about causes, they are not able to distinguish between coincidence and causation; we formerly observed the effect which this ignorance produces upon their temper; we must now observe its effect upon their understanding. A little reflection upon our own minds will prevent us from feeling that stupid amazement, or from expressing that insulting contempt, which the natural thoughts of children sometimes excite in persons, who have frequently less understanding than their pupils. What account can we give of the connexion between cause and effect? How is the idea, that one thing is the cause of another, first produced in our minds? All that we know is, that amongst human events those which precede are, in some cases, supposed to produce what follow. When we have observed, in several instances, that one event constantly precedes another, we

believe, and expect, that these events will in future recur together. Before children have had experience, it is scarcely possible that they should distinguish between fortuitous circumstances and causation; accidental coincidences of time, and juxtaposition, continually lead them into error. We should not accuse children of reasoning ill, we should not imagine that they are defective in judgment, when they make mistakes from deficient experience; we should only endeavour to make them delay to decide until they have repeated their experiments; and, at all events, we should encourage them to lay open their minds to us, that we may assist them by our superior knowledge.

This spring, little W— (three years old) was looking at a man who was mowing the grass before the door. It had been raining, and when the sun shone the vapour began to rise from the grass. "Does the man mowing *make* the smoke rise from the grass?" said the little boy. He was not laughed at for this simple question. The man's mowing immediately preceded the rising of the vapour; the child had never observed a man mowing before, and it was absolutely impossible that he could tell what effects might be produced by it; he very naturally imagined, that the event which immediately preceded the rising of the vapour, was the cause of its rise; the sun was at a distance; the scythe was near the grass. The little boy shewed by the tone of his inquiry, that he was in the philosophic state of doubt; had he been ridiculed for his question, had he been told that he talked nonsense, he would not upon another occasion have told his thoughts, and he certainly could not have improved in reasoning.

The way to improve children in their judgment with respect to causation, is to increase their knowledge, and to lead them to try experiments by which they may discover what circumstances are essential to the production of any given effect, and what are merely accessory, unimportant concomitants of the event.

A child, who for the first time sees blue and red paints mixed together to produce purple, could not be certain, that the pallet on which these colours were mixed, the spatula with which they were tempered, were not necessary circumstances. In many cases the vessels in

which things are mixed are essential; therefore, a sensible child would repeat the experiment exactly in the same manner in which he had seen it succeed. This exactness should not be suffered to become indolent imitation, or superstitious adherence to particular forms. Children should be excited to add or deduct particulars in trying experiments, and to observe the effects of these changes. In "Chemistry," and "Mechanics," we have pointed out a variety of occupations, in which the judgment of children may be exercised upon the immediate objects of their senses.

It is natural, perhaps, that we should expect our pupils to shew surprise at those things, which excite surprise in our minds; but we should consider, that almost every thing is new to children, and therefore there is scarcely any gradation in their astonishment. A child of three or four years old would be as much amused, and, probably, as much surprised, by seeing a paper kite fly, as he could by beholding the ascent of a balloon. We should not attribute this to stupidity or want of judgment, but simply to ignorance.

A few days ago, W— (three years old), who was learning his letters, was let sow an *o* in the garden with mustard seed. W— was much pleased with the operation. When the green plants appeared above ground, it was expected that W— would be much surprised at seeing the exact shape of his *o*. He was taken to look at it; but he shewed no surprise, no sort of emotion.

We have advised, that the judgment of children should be exercised upon the objects of their senses. It is scarcely possible, that they should reason upon the subjects which are sometimes proposed to them; with respect to manners and society, they have had no experience, consequently they *can* form no judgments. By imprudently endeavouring to turn the attention of children to conversation that is unsuited to them, people may give the *appearance* of early intelligence, and a certain readiness of repartee and fluency of expression; but these are transient advantages. Smart, witty children amuse the circle for a few hours, and are forgotten; and we may observe, that almost all children who are praised and admired for sprightliness

and wit, reason absurdly, and continue ignorant. Wit and judgment depend upon different opposite habits of the mind. Wit searches for remote resemblances between objects or thoughts apparently dissimilar. Judgment compares the objects placed before it, in order to find out their differences rather than their resemblances.

education; and it is but just to warn parents against expecting inconsistent qualities from their pupils. Those who steadily prefer the solid advantages of judgment, to the transient brilliancy of wit, should not be mortified when they see their children, perhaps, deficient at nine or ten years old in the showy talents for general conversation; they must bear to

they state the arguments only on their own side of the question, and they will not allow the force of those which are brought against them. Children are thus piqued, instead of being convinced, and in their turn they become zealots in support of the own opinions; they hunt only for arguments in their own favour, and they are mortified when a good reason is brought on the opposite side of the question to that on which they happen to have enlisted. To prevent this we should never argue, or suffer others to argue for victory with our pupils; we should not praise them for their cleverness in finding out arguments in support of their own opinion; but we should praise their candour and good sense when they perceive and acknowledge the force of their opponent's arguments. They should not be exercised as advocates, but as judges; they should be encouraged to keep their minds impartial, to sum up the reasons which they have heard, and to form their opinion from these without regard to what they may have originally asserted. We should never triumph over children for changing their opinion. "I thought you were on *my* side of the question;" or, "I thought you were on the other side of the question just now!" is sometimes tauntingly said to an ingenuous child, who changes his opinion when he hears a new argument. You think it a proof of his want of judgment, that he changes his opinion in this manner; that he vibrates continually from side to side: let him vibrate, presently he will be fixed. Do you think it a proof that your scales are bad, because they vibrate with every additional weight that is added to either side?

Idle people sometimes amuse themselves with trying the judgment of children, by telling them improbable, extravagant stories, and then ask the simple listeners whether they believe what has been told them. The readiness of belief in children will always be proportioned to their experience of the veracity of those with whom they converse; consequently children, who live with those who speak truth to them, will scarcely ever be inclined to doubt the veracity of strangers. Such trials of the judgment of our pupils should never be permitted. Why should the example of lying be set before the honest minds of children, who are far from silly when

“Wit and judgment depend upon different opposite habits of the mind. Wit searches for remote resemblances between objects or thoughts apparently dissimilar. Judgment compares the objects placed before it, in order to find out their differences rather than their resemblances.”

The comparisons of judgment may be slow; those of wit must be rapid. The same power of attention in children may produce either wit or judgment. Parents must decide in which faculty, or rather, in which of these habits of the mind, they wish their pupils to excel; and they must conduct their education accordingly. Those who are desirous to make their pupils witty, must sacrifice some portion of their judgment to the acquisition of the talent for wit; they must allow their children to talk frequently at random. Amongst a multitude of hazarded observations a happy hit is now and then made: for these happy hits children who are to be made wits should be praised; and they must acquire sufficient courage to speak from a cursory view of things; therefore the mistakes they make from superficial examination must not be pointed out to them; their attention must be turned to the comic, rather than to the serious side of objects; they must study the different meanings and powers of words; they should hear witty conversation, read epigrams, and comedies; and in all company they should be exercised before numbers in smart dialogue and repartee.

When we mention the methods of educating a child to be witty, we at the same time point out the dangers of this

see their pupils appear slow; they must bear the contrast of flippancy and sober simplicity; they must pursue exactly an opposite course to that which has been recommended for the education of wits; they must never praise their pupils for hazarding observations; they must cautiously point out any mistakes that are made from a precipitate survey of objects; they should not harden their pupils against that feeling of shame, which arises in the mind from the perception of having uttered an absurdity; they should never encourage their pupils to play upon words; and their admiration of wit should never be vehemently or enthusiastically expressed....

In stating any question to a child, we should avoid letting our own opinion be known, lest we lead or intimidate his mind. We should also avoid all appearance of anxiety, all impatience for the answer; our pupil's mind should be in a calm state when he is to judge: if we turn his sympathetic attention to our hopes and fears, we agitate him, and he will judge by our countenances rather than by comparing the objects or propositions which are laid before him. Some people, in arguing with children, teach them to be disingenuous by the uncandid manner in which they proceed; they shew a desire for victory, rather than for truth;

they shew simplicity? They guide themselves by the best rules, by which even a philosopher in familiar circumstances could guide himself. The things asserted are extraordinary, but the children believe them, because they have never had any experience of the falsehood of human testimony.

The Socratic mode of reasoning is frequently practiced upon children. People arrange questions artfully, so as to bring them to whatever conclusion they please. In this mode of reasoning much depends upon getting the first move; the child has very little change of having it, his preceptor usually begins first with a preemptory voice, "Now answer me this question?" The pupil, who knows that the interrogatories are put with a design to entrap him, is immediately alarmed, and instead of giving a direct candid answer to the question, is always looking forward to the possible consequences of his reply; or he is considering how he may evade the snare that is laid for him. Under these circumstances he is in imminent danger of learning the shuffling habits of cunning; he has little chance of learning the nature of open, manly investigation.

Preceptors, who imagine that it is necessary to put on very grave faces, and to use much learned apparatus in teaching the art of reasoning, are not nearly so likely to succeed as those are, who have the happy art of encouraging children to lay open their minds freely, and who can make every pleasing trifle an exercise for the understanding. If it

"The king's stag hounds," (says Mr. White of Selborne, in his entertaining observations on quadrupeds,) the king's stag hounds came down to Alton, attended by a huntsman and six yeoman prickers with horns, to try for the stag that has haunted Hartley-wood and its environs for so long a time. Many hundreds of people, horse and foot, attended the dogs to see the deer unharboured; but though the huntsman drew Hartley-wood, and Long-coppice, and Shrub-wood, and Temple-hangers, and in their way back, Hartley, and Ward-ledham-hangers, yet no stag could be found.

"The royal pack, accustomed to have the deer turned out before them, never drew the coverts with any address and spirit."

Children, who are accustomed to have the game started and turned out before them by their preceptors, may perhaps, like the royal pack, lose their wonted address and spirit, and may be disgracefully *at a fault* in the public chase. Preceptors should not help their pupils out in argument, they should excite them to explain and support their own observations.

Many ladies shew in general conversation the powers of easy raillery joined to reasoning, unincumbered with pedantry. If they would employ these talents in the education of their children, they would probably be as well repaid for their exertions, as they can possibly be by the polite, but transient applause, of the visitors to whom they usually devote their powers of entertaining. A little praise or blame, a smile from a

events which interest them, and upon these occasions a mother, who joins in conversation with her children, may instruct them in the art of reasoning without the parade of logical disquisitions.

Mr. Locke has done mankind an essential service, by the candid manner in which he has spoken of some of the learned forms of argumentation. A great proportion of society, he observes, are unacquainted with these forms, and have never heard the name of Aristotle; yet without the aid of syllogisms, they can reason sufficiently well for all the useful purposes of life, often much better than those who have been disciplined in the schools. It would indeed "be putting one man sadly over the head of another," to confine the reasoning faculty to the disciples of Aristotle, to any sect or system, or to any forms of disputation. Mr. Locke has very clearly shewn, that syllogisms do not assist the mind in the perception of the agreement or disagreement of ideas; but, on the contrary, that they invert the natural order in which the thoughts should be placed, and in which they must be placed, before we can draw a just conclusion. To children who are not familiarised with scholastic terms, the sound of harsh words, and quaint language, unlike any thing that they hear in common conversation, is alone sufficient to alarm their imagination with some confused apprehension of difficulty. In this state of alarm they are seldom sufficiently masters of themselves, either to deny or acknowledge an adept's major, minor, or conclusion. Even those who are most expert in syllogistical reasoning do not often apply it to the common affairs of life, in which reasoning is just as much wanted as it is in the abstract questions of philosophy; and many argue, and conduct themselves with great prudence and precision, who might, perhaps, be caught on the horns of a dilemma, or who would infallibly fall victims to *the crocodile*.

Young people should not be ignorant, however, of these boasted forms of argumentation; and it may, as they advance in the knowledge of words, be a useful exercise to resist the attacks of sophistry. No ingenuous person would wish to teach a child to employ them. As defensive weapons, it is necessary, that

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be playfully pointed out to a child that he reasons ill, he smiles and corrects himself; but you run the hazard of making him positive in error, if you reprove or ridicule him with severity. It is better to seize the subjects that accidentally arise in conversation, than formally to prepare subjects for discussion.

mother, or a frown, a moment's attention, or a look of cold neglect, have the happy, or the fatal power of repressing or of exciting the energy of a child, of directing his understanding to useful or pernicious purposes. Scarcely a day passes in which children do not make some attempt to reason about the little

young people should have the command of logical terms; as offensive weapons, these should never be used. They should know the evolutions, and be able to perform the exercise of a logician, according to the custom of the times, according to the usage of different nations; but they should not attach any undue importance to this technical art: they should not trust to it in the day of battle.

We have seen syllogisms, crocodiles, enthymemes, sorites, etc. explained and tried upon a boy of nine or ten years old in playful conversation, so that he became accustomed to the terms without learning to be pedantic in the abuse of them; and his quickness in reasoning was increased by exercise in detecting puerile sophisms: such as that of *the Cretans* — Gorgias and his bargain about the winning of his first cause. In the following stories of Themistocles — “My son commands his mother; his mother commands me; I command the Athenians; the Athenians command Greece; Greece commands Europe; Europe commands the whole earth; therefore my son commands the whole earth” — the sophism depends upon the inaccurate use of the word *commands*, which is employed in different senses in the different propositions. This error was without difficulty detected by S— at ten years old; and we make no doubt that any unprejudiced boy of the same age would immediately point out the fallacy without hesitation; but we do not feel quite sure that a boy exercised in logic, who had been taught to admire and reverence the ancient figures of rhetoric, would with equal readiness detect the sophism. Perhaps it may seem surprising, that the same boy, who judged so well of this sorites of Themistocles, should a few months before have been easily trapped by the following simple dilemma:

M—. “We should avoid what gives us pain.”

S—. “Yes to be sure.”

M—. “Whatever burns us gives us pain.”

S—. “Yes, that it does!”

M—. “We should then avoid whatever burns us.”

To this conclusion S— heartily assented, for he had but just recovered from the pain of a burn.

M—. “Fire burns us.”

S—. “Yes, I know that.”

M—. “We should then avoid fire.”

S—. “Yes.”

This hasty *yes* was extorted from the boy by the mode of interrogatory; but he soon perceived his mistake.

M—. “We should avoid fire. What when we are very cold?”

S—. “Oh, no; I meant to say, that we should avoid a certain degree of fire. We should not go *too* near the fire. We should not go *so* near as to burn ourselves.”

Children who have but little experience frequently admit assertions to be true in general, which are only true in particular instances; and this is often attributed to their want of judgment: it should be attributed to their want of experience. Experience, and nothing else, can rectify these mistakes: if we attempt to correct them by words, we shall merely teach our pupils to argue about terms not to reason. Some of the questions and themes which are given to boys may afford us instances of this injudicious education. “Is eloquence advantageous, or hurtful to a state?” What a vast range of ideas, what variety of experience in men and things should a person possess, who is to discuss this question! Yet it is often discussed by unfortunate scholars of eleven or twelve years old. “What is the greatest good?” The answer expected by a preceptor to this question, obviously is, virtue: and, if a boy can in decent language write a page or two about *pleasure’s* being a transient, and *virtue’s* being a permanent good, his master flatters himself that he has early taught him to reason philosophically. But what ideas does the youth annex to the words *pleasure* and *virtue*? Or does he annex any? If he annex no idea to the words, he is merely talking about sounds.

All reasoning ultimately refers to matters of fact; to judge whether any piece of reasoning be within the comprehension of a child, we must consider whether the facts to which it refers are within his experience. The more we increase his knowledge of facts, the more we should exercise him in reasoning upon them; but we should teach him to examine carefully before he admits any thing to be a fact, or any assertion to be true. Experiment, as to substances, is the test of truth; and attention to his own

feelings, as to matters of feeling. Comparison of the evidence of others with the general laws of nature, which he has learned from his own observation, is another mode of obtaining an accurate knowledge of facts. M. Condillac, in his *Art of Reasoning*, maintains, that the evidence of reason depends solely upon our perception of the *identity*, or, to us a less formidable word, *sameness*, of one proposition with another. “A demonstration,” he says, “is only a chain of propositions, in which the same ideas passing from one to the other differ only because they are differently expressed; the evidence of any reasoning consists solely in its identity.”

M. Condillac exemplifies this doctrine by translating this proposition, “The measure of every triangle is the product of its height by half its base,” into self-evident, or, as he calls them, identical proportions. The whole ultimately referring to the ideas which we have obtained by our senses of a triangle; of its base, of measure, height, and number. If a child had not previously acquired any one of these ideas, it would be in vain to explain one term by another, or to translate one phrase or proposition into another; they might be identical, but they would not be self-evident propositions to the pupil; and no conclusion, except what relates merely to words, could be formed from such reasoning. The moral which we should draw from Condillac’s observations for Practical Education must be, that clear ideas should first be acquired by the exercise of the senses, and that afterwards, when we reason about things in words, we should use few and accurate terms, that we may have as little trouble as possible in changing or translating one phrase or proposition into another.

Children, if they are not overawed by authority, if they are encouraged in the habit of observing their own sensations, and if they are taught precision in the use of the words by which they describe them, will probably reason accurately where their own feelings are concerned.

In appreciating the testimony of others, and in judging of chances and probability, we must not expect our pupils to proceed very rapidly. There is more danger that they should overrate, than that they should undervalue the evidence of others; because, as we

formerly stated, we take it for granted, that they have had little experience of falsehood. We should, to preserve them from credulity, excite them, in all cases where it can be obtained, never to rest satisfied without the strongest species of evidence, that of their own senses. If a child says, "I am sure of such a thing," we should immediately examine into his reasons for believing it. "Mr. A. or Mr. B. told me so," is not a sufficient cause of belief, unless the child has had long experience of A. and B.'s truth and accuracy; and, at all events, the indolent habit of relying upon the assertions of others, instead of verifying them, should not be indulged.

tion. On hearing extraordinary facts some children will not be satisfied with vague assertions, others content themselves with saying, "It is so, I read it in a book." We should have little hopes of those who swallow every thing they read in a book; we are always pleased to see a child hesitate and doubt, and require positive proof before he believes. The taste for the marvellous is strong in ignorant minds, the wish to account for every new appearance characterises the cultivated pupil.

A lady told a boy of nine years old (S—) the following story, which she had just met with in "The Curiosities of Literature." An officer, who was con-

The difficulty of judging concerning the truth of evidence increases, when we take moral causes into the account. If we had any suspicion, that a man who told us that he had seen an apple fall from a tree, had himself pulled the apple down and stolen it, we should set the probability of his telling a falsehood, and his motive for doing so, against his evidence; and though, according to the natural physical course of things, there would be no improbability in his story, yet there might arise improbability from his character for dishonesty; and thus we should feel ourselves in doubt concerning the fact. But if two people agreed in the same testimony our doubt would vanish, and dishonest man's doubtful evidence would be corroborated, and we should believe, notwithstanding his general character, in the truth of his assertion in this instance. We could make the matter infinitely more complicated, but what has been said will be sufficient to suggest to preceptors the difficulty, which their young and inexperienced pupils must feel, in forming judgments of facts where physical and moral probabilities are in direct opposition to each other.

We wish that a writer equal to such a talk would write trials for children as exercises for their judgment; beginning with the simplest, and proceeding gradually to the more complicated cases in which moral reasonings can be used. We do not mean, that it would be advisable to initiate young readers in the technical forms of law; but the general principles of justice, upon which all law is founded, might, we think, be advantageously exemplified. Such trials would entertain children extremely. There is a slight attempt at this kind of composition, we mean in a little trial in *Evenings at Home*; and we have seen children read it with great avidity. Cyrus's judgment about the two coats, and the ingenious story of the olive merchant's cause rejudged by the sensible child in the *Arabian Tales*, have been found highly interesting to a young audience.

We should prefer truth to fiction; if we could select any instances from real life, any trials suited to the capacity of young people, they would be preferable to any which the most ingenious writer could invent for our purpose. A gentleman, who has taken his two sons,

"Children, if they are not overawed by authority.... will probably reason accurately where their own feelings are concerned."

It would be waste of time to repeat those experiments, of the truth of which the uniform experience of our lives has convinced us; we run no hazard, for instance, in believing any one who simply asserts, that they have seen an apple fall from a tree; this assertion agrees with the great natural *law of gravity*, or, in other words, with the uniform experience of mankind: but if any body told us, that they had seen an apple hanging self-poised in the air, we should reasonably suspect the truth of their observation, or of their evidence. This is the first rule which we can most readily teach our pupils in judging of evidence. We are not speaking of children from four to six years old, for every thing is almost equally extraordinary to them; but when children are about ten or eleven, they have acquired a sufficient variety of facts to form comparisons, and to judge to a certain degree of the probability of any new fact that is related. In reading and in conversation we should now exercise them in forming judgments, where we know that they have the means of comparison. "Do you believe such a thing to be true? and why do you believe it? Can you account for such a thing?" are questions we should often ask at this period of their educa-

tion. The officer, who was confined in the Bastille, used to amuse himself by playing on the flute: one day he observed, that a number of spiders came down from their webs, and hung round him as if listening to his music; a number of mice also came from their holes and retired as soon as he stopped. The officer had a great dislike for mice, he procured a cat from the keeper of the prison, and when the mice were entranced by his music, he let the cat out amongst them.

S— was much displeased by this man's treacherous conduct towards the poor mice, and his indignation for some moments suspended his reasoning faculty; but, when S— had sufficiently expressed his indignation against the officer in the affair of the mice, he began to question the truth of the story; and he said, that he did not think it was certain, that the mice and spiders came to listen to the music. "I do not know about the mice," said he, "but I think, perhaps, when the officer played upon the flute, he set the air in motion, and shook the cobwebs, so as to disturb the spiders." We do not, or did the child think, that this was a satisfactory account of the matter, but we mention it as an instance of the love of investigation, which we wish to encourage.

one of them ten, and the other fifteen years old, to hear trials at his county assizes, found by the account which the boys gave of what they had heard, that they had been interested, and that they were capable of understanding the business.

Allowance must be made at first for the bustle and noise of a public place, and for the variety of objects which distract the attention.

Much of the readiness of forming judgments depends upon the power of discarding and obliterating from our mind all the superfluous circumstances; it may be useful to exercise our pupils, by telling them now and then stories in the confused manner in which they are sometimes related by puzzled witnesses; let them reduce the heterogeneous circumstances to order, make a clear statement of the case for themselves, and try if they can point out the facts on which the decision principally rests. This is not merely education for a lawyer, the powers of reasoning and judgment, when they have been exercised in this manner, may be turned to any art or profession. We should, if we were to try the judgment of children, observe, whether in unusual circumstances they can apply their former principles, and compare the new objects that are placed before them without perplexity. We have sometimes found, that on subjects entirely new to them, children, who have not been used to reason, can lay aside the circumstances that are not essential, and form a distinct judgment for themselves, independently of the opinion of others.

Last winter the entertaining life of the celebrated miser Mr. Elwes was read aloud in a family, in which there were a number of children. Mr. Elwes, once, as he was *walking* home on a dark night, in London, ran against a chair pole and bruised both his shins. His friends sent for a surgeon. Elwes was alarmed at the idea of the expence, and he laid the surgeon the amount of his bill, that the leg which he took under his own protection would get well sooner than that which was put under the surgeon's care; at the same time Mr. Elwes promised to put nothing to the leg of which he took charge. Mr. Elwes's favourite leg got well sooner than that which the surgeon had undertaken to cure, and Mr. Elwes

won his wager. In a note upon this transaction his biographer says, "This wager would have been a bubble bet if it had been brought before the Jockey-club, because Mr. Elwes, though he promised to put nothing to the leg under his own protection, took Velnos' vegetable sirup during the time of its cure."

C— (a girl of 12 years old), observed when this anecdote was read, that, "still the wager was a fair wager, because *the medicine* which Mr. Elwes took, if it was of any use, must have been of use to both legs; therefore the surgeon and Mr. Elwes had equal advantage from it." C— had never heard of the Jockey club, or of bubble bets before, and she used the word *medicine*, because she forgot the name of Velnos' vegetable sirup.

We have observed that the works of criticism are unfit for children, and teach them rather to remember what others say of authors, than to judge of the books themselves impartially; but, when we objected to works of criticism, we did not mean to object to criticism; we think it an excellent exercise for the judgment, and we have ourselves been so well corrected, and so kindly assisted by the observations of young critics, that we cannot doubt their capacity. When young people have acquired a command of language, we must be careful lest their fluency and their ready use of synonymous expressions should lessen the accuracy of their reasoning. Mr. Horne Tooke has ably shewn the connection between the study of language and the art of reasoning. It is not necessary to make our pupils profound grammarians, or etymologists, but attention to the origin, abbreviations, and various meanings of words, will assist them not only to speak, but to think and argue with precision. This is not a study of abstract speculation, but of practical, daily utility; half the disputes, and much of the misery of the world, originate and perpetuate themselves by the inaccurate use of words. One party uses a word in *this* sense, the opposite party uses the same word in another sense; all their reasonings appear absurd to each other; and, instead of explaining them, they quarrel. This is not the case merely in *philosophical* disputes, between authors, but it happens continually in the busy active scenes of life. Even whilst we were

writing this passage, in the newspaper of to-day we met with an instance, that is sufficiently striking.

"The accusation against me," says Sir. Sidney Smith, in his excellent letter to Pichegru, expostulating upon his unmerited confinement, "brought forward by *your* justice of the peace, was, that I was the enemy of the republic. You know, general, that with military men the word *enemy* has merely a technical signification, without expressing the least character of hatred. You will readily admit this principle, the *result* of which is, that I ought not to be persecuted for the injury I have been enabled to do whilst I carried arms against you."

Here the argument between two generals, one of whom is pleading for his liberty, if not for his life, turns upon the meaning and construction of a single word. Accuracy of reasoning, and some knowledge of language, may, it appears, be of essential service in all professions.

It is not only necessary to attend to the exact meaning which is avowedly affixed to any terms used in argument, but it is also useful to attend to the thoughts which are often suggested to the disputants by certain words. Thus, the words happiness, and beauty, suggest in conversation very different ideas to different men, and in arguing concerning these they could never come to a conclusion: even persons who agree in the same definition of a word, frequently, do not sufficiently attend to the ideas which the word suggests; to the association of thoughts and emotions which it excites; and, consequently, they cannot strictly abide by their own definition, or can they discover where the error lies. We have observed that the imagination is powerfully affected by words that suggest long trains of ideas; our reasonings are influenced in the same manner, and the elliptical figures of speech are used in reasoning as well as in poetry.

"I would do so and so, if I were Alexander."

"And so would I, if I were Parmenio:"

is a short reply, which suggests a number of ideas, and a train of reasoning. To those who cannot supply the intermediate ideas the answer would not appear either sublime or rational. Young people, when they appear to ad-

mire any compressed reasoning, should be encouraged to shew, that they can supply the thoughts and reasons that are not expressed. Vivacious children will be disgusted, however, if they are required to detail upon the subject; all that is necessary is, to be sure that they actually comprehend what they admire.

Sometimes a question that appears simple involves the consideration of others which are difficult. Whenever a preceptor cannot go to the bottom of the business, he will do wisely to say so at once to his pupil, instead of attempting a superficial or evasive reply. For instance, if a child was to hear that the Dutch burn and destroy quantities of spice, the produce of their India islands, he would probably express some surprise, and perhaps some indignation. If a preceptor were to say, "The Dutch have a right to do what they please with what is their own, and the spice is their own," his pupil would not yet be satisfied; he would probably say, "Yes, they have a right to do what they please

with what is their own; but why should they destroy what is useful?" The preceptor might answer, if he chose to make a foolish answer, "The Dutch follow their own interest in burning the spice; they sell what remains at a higher price; the market would be overstocked if they did not burn some of their spice." Even supposing the child to understand the terms, this would not be a satisfactory answer; or could a satisfactory answer be given without discussing the nature of commerce, and the *justice* of monopolies. Where one question in this manner involves another, we should postpone the discussion if it cannot be completely made; the road may be just pointed out, and the pupil's curiosity may be excited to future inquiry. It is even better to be ignorant, than to have superficial knowledge.

A philosopher, who himself excelled in accuracy of reasoning, recommends the study of mathematics to improve the acuteness and precision of the reasoning faculty. To study any thing accurately

will have an excellent effect upon the mind, and we may afterwards direct the judgment to whatever purposes we please. It has often been remarked, as a reproach upon men of science and literature, that those who judge extremely well of books, and of abstract philosophical questions, do not shew the same judgment in the active business of life; a man, undoubtedly, may be a good mathematician, a good critic, an excellent writer, and may yet not shew, or rather not employ, much judgment in his conduct: his powers of reasoning cannot be deficient, the habit of employing those powers in conducting himself he should have been taught by early education. Moral reasoning, and the habit of acting in consequence of the conviction of the judgment, we call prudence; a virtue of so much consequence to all the other virtues, a virtue of so much consequence to ourselves and to our friends, that it surely merits a whole chapter to itself in Practical Education.



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A Study of Philosophy as a Teaching Methodology in the Elementary School

Improving the Logical Skills of Fifth Graders

Nancy Pekin Cummings

I have no direct connection with the Institute for the Advancement of Philosophy for Children at Montclair State College, Montclair, New Jersey, but like Matthew Lipman, its founder and director, I have long believed that philosophy can be taught to children in such a way that it will improve their logical skills. As a Doctoral student in Education at North Texas State University, I was able to obtain permission to teach philosophy to children in an elementary school; and as an experienced community college philosophy teacher with a Master's degree in Philosophy, and two children of my own, I was eager to try. I decided, therefore, in the spring of 1979, to replicate Lipman's 1970 field experiment which he conducted in the Rand School, Montclair, New Jersey (Lipman, 1976), at Stonegate Elementary School in Bedford, Texas, a suburb of Fort Worth. I pretested 32 fifth-grade students, randomly selected from the available pool of fifth-graders at Stonegate school, using the sub-tests on logical skills (Opposites, Similarities, Analogies and Inferences) from the California Test of Mental Maturity, 1963 Revised Long Form. These 32 students were randomly divided into

two groups of 16 each (an experimental group and a control group). Unfortunately, since the experiment was conducted at the end of the school year, the post-test was given two days before school closed for the summer and three of the children had already left school for the year. Complete data are available, therefore, for only 14 children from the experimental group and 15 from the control group.

The experimental group met with me twice a week (40-minute sessions) for seven and a half weeks (15 sessions). The control group continued in their regularly scheduled class at that hour—language arts reinforcement. We read and discussed the philosophical novel for children, *Harry Stottlemeier's Discovery*, emphasizing the logical aspects of the book. Discussion among 10-year-olds in a group the size of mine did not appear to me to be especially productive, at least in regard to teaching the more logical aspects of *Harry*. So I introduced a series of in-class paper and pencil exercises and homework assignments designed to reinforce the logical principles presented in the book. Some of these exercises were from the instructional manual (Lipman and Sharp, 1975) and some were my own.

The children seemed to work much better on an individual basis, but discussion was not dropped altogether. The balance overall between discussion and paper-pencil exercises was approximately 40% discussion and 50% paper-pencil exercises. (The remaining 10% was devoted to informal lecturing by me.) Work as individualized as much as possible. The children worked through the exercises at their own rate of speed. While they worked, I circulated among them, answering questions and explaining various points, on an individual basis. Peer tutoring was utilized. When the faster students got more than two exercises ahead of the slower ones, they were asked to help those who asked for help. This approach seemed to work well for all concerned.

One of my biggest problems in the class was in the area of classroom management. I knew nothing about my students before the class began and wanted to know nothing in order to avoid any Pygmalion effect. I even scored the pretests "blind." But after several surprising disruptions and hostile reactions from two of the children, I spoke to the principal and she informed me that my random sample had managed to pull in a couple of students who were well-known as "discipline problems" in the school. One of these was a child who had been transferred from another school because of her inability "to get along with anyone there." To make matters worse, the class met from 2:30 to 3:10 PM (the last period of the day—a difficult period to teach as any elementary school teacher can testify); and we met right after the children had their physical education class (which made "settling

down" a real problem for my hot and sweaty kids). In addition, the program began very late in the school year (again, a bad time to teach— children really do seem to get "spring fever") and ran only seven and a half weeks rather than nine weeks as I had originally planned. And it was interrupted by a one-week spring break, a field day, a flash flood, and a track meet.

At mid-point in the program I despaired that any progress would or could be made by my students, but about the end of the fifth week, I began to see signs of positive results; *e.g.*, a class discussion on the need for rules regarding classroom behavior in which the children discussed the *reasons for* such rules in terms of whether or not particular reasons presented were *good* reasons or not and *why/why not*; and an apparently improved grasp of the nature of logical thinking as evidenced by the children's more rapid responses to my explanations. At first, they had tended simply to look at me with puzzled expressions when I explained that one sentence could imply another even if the first sentence were false. Later on in the course, when I said (for example), "If all dogs are black and Spot is a dog, then Spot must be black. Right?" and a student replied, "But it's not true! Not all dogs are black!" Several of the other children piped up, "We're talking about *meaning*, stupid!" (Unfortunately, I had little success in controlling things like name-calling — their favorite epithet apparently being, "stupid.") At any rate, despite all the problems, progress was made as indicated by the results of the post-test which consisted of the same subtests of the CTMM used in the pretest. Results of the post-test are discussed below.

Statistical Design and Results

The statistical model used was that of a randomized pretest/post-test control group design, utilizing a t-test for two independent samples. The test of the null hypothesis is recorded below. Scores shown are post/pre-test differences.

1. $H: \mu_1 = \mu_2$ $A: \mu_1 > \mu_2$
2. t-test for independent samples:
 $n_1 = 14, n_2 = 15.$
3. .05. level, one-tailed, $df = 27.$
R: $t \geq 1.703$

4. Sample 1 (Experimental Group):

2, -1, 0, 1, 2, 8, 7, 5, 3, 5, 6, 3, 2, 2.
 $n_1 = 14, M_1 = 3.21, SS_1 = 90.36$

Sample 2 (Control Group):

1, 3, -4, 2, 5, 3, 3, -1, 8, 0, 1, -1, 2, -3, 1.

$n_2 = 15, M_2 = 1.33, SS_2 = 127.33$

$$S_{m_1 - m_2} = \sqrt{\frac{90.36 + 127.33(1 + 1)}{14 + 15 - 2(14 + 15)}} = 1.06$$

$$t = \frac{3.21 - 1.33}{1.06} = 1.77$$

5. Reject the null hypothesis. There is a significant difference in the means of the two samples at the .05 level of significance. The data suggest that the experimental treatment (philosophy for children) enabled the subjects to significantly improve their scores on tests of logical thinking.

Problems with Replication

Although the results of the current study lend support to the claims made by Lipman in regard to gains in logical skills, it is not the case that the current study exactly replicates the previous one. First of all, since the study began late in the year, the class ran for only seven and a half weeks for a total of only ten hours of instruction. Lipman met his class for nine weeks for a total of 13½ hours. However, this difference is not damaging since it demonstrates that even fewer hours than Lipman taught can produce significant results. Still, the difference does represent a deviation from the original study.

Secondly, the 1970 Rand School class of 20 children was taught by Dr. Lipman and two aides who were graduate students in psychology. Since the present project was unfunded, I taught my class of 16 randomly selected fifth-graders alone. Again, this difference is not damaging since it, too, appears to strengthen Lipman's claims.

Thirdly, because of the difficulties I encountered in conducting meaningful discussions with my group of 16 active ten-year-olds, I leaned heavily on written exercises and homework assignments, while in Lipman's project "There was no homework, no grades, no written classwork — it was all discussion." (Lipman 1976, p. 33). This difference in approach which produced similar results suggests that further research needs to be done on ap-

propriate methodology for teaching children logical skills. There is even a suggestion here that results may be excessively teacher-centered, results being attained because both Lipman and I are trained philosophers and not because of particular materials or approach used.

Another difference is that the Rand School is located in an area populated largely by low-income and lower-middle-income black families, while Stonegate Elementary School is located in a predominantly white middle and upper-middle income area. However, the Stonegate class was chosen randomly and did include high, middle and low achievers, hence demonstrating the value of the philosophical approach for children at all levels. The significance of Lipman's study on this score is that it involved minority and low-income children.

Further, nowhere in any of the many articles written by and about Lipman's project (and subsequent projects) is there any mention of any "discipline" problem occurring in his class. I had them from the very first day and taught the class through constant interruptions and distractions from charming but unruly youngsters. I blamed my lack of experience teaching children but was counseled by a very cooperative and understanding principal that "children are different today." Perhaps they are. (See, for example, Niensted 1979, and Divoky 1979 for some reflections on this possibility). At any rate, I believe that this difference between my experience and Lipman's enhances the importance of the current study since it demonstrates the relevance of philosophy as a teaching methodology for today's children, including those who have been labelled "discipline problems."

Far more serious to the problem of replication is the fact that the original research report on the Rand School study quoted by Lipman (1976, p. 32) has never been published and was not available to me. Without access to the report and the original data, it is impossible to resolve what appear to be inaccuracies and inconsistencies in the material Lipman quotes from the original report. Unfortunately, these inaccuracies and inconsistencies may never be cleared up since Lipman

reports that the data on which the original report was based are "no longer available" (1976, p.33.) [One of the graduate assistants in the 1970 experiment reported that the data had been lost. This was some time after Bierman's report had been completed. Ed.]

Following are some of them:

1. The original report, as quoted by Lipman, states that four specific test parts of the CTMM (1963 Rev. Long Form) were used to pretest both the experimental group and the control group and that "both groups demonstrated above average scores in the results" (Lipman 1976, p. 32). However, the four test parts of the CTMM specific to logical skills are tests on Opposites, Similarities, Analogies and Inferences, and these sub-tests have not been provided norms, either singly or as a grouped sub-section, for such a comparison. The only way one could say the CTMM scores were "above average" would be if the entire CTMM were given, or if a normed sub-section (e.g., Language or Non-Language) were given. But the tests on Opposites, Similarities and Analogies are only part of the Non-Language section, and the test on inferences is just one part of the Language section. Norms are not given for these parts. Therefore, the claim that both groups scored "above average" is questionable.
2. The report states that at the end of nine weeks both groups were tested using "the same four tests of the California Test of Mental Maturity...except that the items were extracted from the Short Form (1963

Revision) of the test" (Lipman 1976, p.32). However, the Short Form of the CTMM does not include all four of the sub-tests on logical skills. It omits the test on inferences. Therefore, the claim that the same four tests were used is either false, or the test on inferences was not one of the four sub-tests given as a pre-test, which would invalidate claims made about logical skills since the inference test is the test most relevant to the kind of skills taught in the class.

3. The report states that the experimental group showed an increase of 27 months in mental age at the end of the nine-week program. However, if only the four tests on logical skills were given (as claimed), it would be impossible to calculate mental age, for the same reason that claims about scores being "above average" are impossible. Therefore, the claim that the experimental group gained 27 months in mental age is questionable.

Conclusion

I believe that the current study provides reliable data to support Lipman's claim that a philosophical approach can be utilized to teach children logical skills. The data may or may not support claims regarding the superiority of Lipman's discussion methodology. More research needs to be done in this area. And, if philosophical approaches are to be used in teaching children logical skills, research needs to be conducted into the best ways to teach elementary school teachers how to teach philosophically (since, obviously, university-trained philosophers are not going to become standard fixtures in elementary

schools). An apparent advantage to Lipman's approach which stressed dialogue (rather than paper and pencil work) is that it produced substantial improvement in the children's reading skills as evidenced in both Bierman's follow-up study and in the 1975 Newark study. However, in the present study, I did not test the children's reading skills, so I cannot say that my paper-and-pencil approach did or did not have an effect in this area. Lipman, of course, stresses dialogue as the primary tool of sharpening thinking skills. Lipman also stresses the need for teacher-training aimed primarily at developing the teacher's ability to use the dialogue approach with children, training which I did not have prior to my experience. Perhaps my difficulties in conducting meaningful classroom discussions with the children reflect this lack.

Finally, the generalizability of the present study is obviously severely limited. But it does demonstrate that a philosopher with no special prior training in teaching philosophy to children can succeed in doing so, and that at least some children can improve their ability to think logically through an experience with philosophical teaching. I have no doubt that as a result of my experience with the children, I could now do a much better job; but the essential part of my experience was that it occurred in an elementary school classroom. The insights and support of the principal at Stonegate, Mrs. Linni Jo Blair; my elementary education adviser at North Texas State University, Dr. Betty Mason; and my counselor friend, Dori English, were invaluable in helping me explore that previously unknown territory.

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William Godwin (1756-1836 was a social reformer and political journalist who typified the Enlightenment conviction that human beings could rely wholly on their reason for guidance in life. Human rights, according to Godwin, are reducible to the right of private judgment, since people must know the reasons which require their acting for the common good. The selection that follows, taken from The Enquirer (1797), is suggestive of Godwin's views on moral education.

OF REASONING AND CONTENTION.

William Godwin

There is a vice, frequently occurring in our treatment of those who depend upon us, which is ludicrous in its appearance, but attended with the most painful consequences to those who are the objects of it. This is, when we set out with an intention of fairness and equality with respect to them, which we find ourselves afterwards unable to maintain.

Let it be supposed that a parent, accustomed to exercise a high authority over his children, and to require from them the most uncontending submission, has recently been convinced of the

impropriety of his conduct. He calls them together, and confesses his error. He has now discovered that they are rational beings as well as himself, that he ought to act the part of their friend, and not of their master; and he encourages them, when they differ in opinion with him as to the conduct they ought to pursue, to state their reasons, and proceed to a fair and equal examination of the subject.

If this mode of proceeding can ever be salutary, it must be to a real discussion that they are invited, and not to the humiliating scene of a mock discussion.

The terms must be just and impartial.

If either party convince the other, there is then no difficulty in the case. The difference of opinion is vanished, and the proceeding to be held will be correspondent.

But it perhaps more frequently happens, in the tangled skein of human affairs, if both parties without indolence or ill faith endeavour to do justice to their respective opinions, that no immediate change of sentiment is produced, and that both seem to leave off where they began. What is to be the result in this case?

If the terms are impartial, the child is then to be victorious. For the conduct to be held is his, and ought therefore, so far as equality is concerned, to be regulated by the dictates of his judgment.

But it is more frequent for the parent to say, No, I have heard you out; you have not convinced me; and therefore nothing remains for you but to submit.

Now in this case, putting myself in the place of the child, I have no hesitation to reply: Upon these terms I cannot enter

“Do not fill me with the sublime emotions of independence, and teach me to take up my rest among the stars of heaven, if your ultimate purpose be to draw closer my fetters, and pull me down unwillingly to the surface of the earth.”

the lists with you. I had rather a thousand times know at once what it is to which I must submit, and comply with a grace, than have my mind warmed with the discussion, be incited to recollect and to state with force a whole series of arguments, and then be obliged to quit the field with disgrace, and follow at the chariot-wheels of my antagonist.

But the case is in reality worse than this. The child may be unprejudiced and open to conviction. But it is little probable that the parent does not bring a judgment already formed to the discussion, so as to leave a small chance that the arguments of the child will be able to change it. The child will scarcely be able to offer any thing new, and has to contend with an antagonist equally beyond his match in powers of mind and body.

The terms of the debate therefore are, first, If you do not convince me, you must act as if I had convinced you. Secondly, I enter the lists with all the weight of long practice and all the pride of added years, and there is scarcely the shadow of a hope that you will convince me.

The result of such a system of proceeding will be extreme unhappiness.

Where the parent is not prepared to grant a real and *bona fide* equality, it is of the utmost importance that he should avoid the semblance of it. Do not open a treaty as between independent states, when you are both able and willing to treat the neighbour-state as a conquered province.

Place me in the condition of a slave, I shall perhaps be able to endure it. Human nature is capable of accommodating itself to a state of subjection, especially when the authority of the matter is exercised with mildness, and seems to be directed in a considerable degree to promote the welfare of the dependent.

The situation I deprecate is that of a slave, who is endowed with the show and appearance of freedom. What I ask at

your hand is, that you would not, without a good and solid meaning, waken all the secret springs of my nature, and call forth the swelling ambition of my soul. Do not fill me with the sublime emotions of independence, and teach me to take up my rest among the stars of heaven, if your ultimate purpose be to draw closer my fetters, and pull me down unwillingly to the surface of the earth. This is a torture more exquisite and refined than all that Sicilian tyrants ever invented.

The person who has been thus treated, turns restless upon the bed of his dungeon. He feels every thing that can give poignancy to his fate. He burns with indignation against the hourly events of his life. His sense of suffering, which would otherwise be blunted, is by this refinement, like the vitals of Prometheus, for ever preyed upon, and for

“...as parents,.....we should acknowledge ourselves fallible....we should retract unaf-fectedly and with grace whenever we find that we have fallen into mistake...”

ever renewed.

The child, whose education has been thus mistaken, will be distinguished by a contentious and mutinous spirit. His activity will at first be excited by the invitation perpetually to debate the commands he receives. He will exercise his ingenuity in the invention of objections, and will take care not to lose his office of deliberating counsellor by any neglect of the functions that characterise it. He will acquire a habit of finding difficulties and disadvantages in every thing. He will be pleased to involve you in perpetual dispute, and to show that the acuteness of his talent is not inferior to yours. He will become indifferent to the question of truth and falsehood, and will exhibit the arts of a practiced sophister. In this he will at first find gratification and

amusement. But he heaps up for himself hours of bitterness. He will be rugged, harsh, tempestuous and untractable; and he will learn to loath almost the consciousness of existence.

The way to avoid this error in the treatment of youth, is to fix in our mind those points from which we may perceive that we shall not ultimately recede, and, whenever they occur, to prescribe them with mildness of behaviour, but with firmness of decision. It is not necessary that in so doing we should really subtract any thing from the independence of youth. They should no doubt have a large portion of independence; it should be restricted only in cases of extreme emergency; but its boundaries should be clear, evident and unequivocal. It is not necessary that, like some foolish parents, we should tenaciously adhere to every thing that we have once laid down, and prefer that heaven should perish rather than we stand convicted of error. We should acknowledge ourselves fallible; we should admit no quackery and false airs of dignity and wisdom into our system of proceeding; we should retract unaf-fectedly and with grace whenever we find that we have fallen into mistake. But we should rather shun, than

invite, controversy into matters that will probably at last be decided from authority. Thus conducting ourselves, we shall generate no resentful passions in the breasts of our juniors. They will submit themselves to our peremptory decisions, in the same spirit as they submit to the laws of inanimate necessity.

It were to be wished that no human creature were obliged to do anything but from the dictates of his own understanding. But this seems to be, for the present at least, impracticable in the education of youth. If we cannot avoid some exercise of empire and despotism, all that remains for us is, that we take care that it not be exercised with asperity, and that we do not add an insulting familiarity or unnecessary contention, to the indispensable assertion of superiority.

Educating for Moral Strength

**Konstantin
Kolenda**

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A few years ago I wrote a text for high school students, entitled, *Ethics for the Young*. Since its publication it has been used in two of Houston's public schools, Madison and Westbury. It is no secret to anyone who attempts to introduce a new subject into school curricula that there is a reluctance to try the untried. State agencies and school boards tend to be conservative bodies, not eager to move in new directions, but personal initiative may make a difference. In the case of Madison High, it was the school principal who was willing to respond to a challenge to introduce philosophy; in the case of Westbury High, it was a teacher who persuaded the principal to allow a modification of her course. In both cases, the teaching of ethics is taking place in a context of another subject — social science and psychology, respectively. Nevertheless, the innovation took hold: Madison has offered the course for three years, Westbury, starting later, for two years in a row.

As a visiting participant in both courses, I was reconfirmed in my conviction that high school students are not only ready but eager to give serious attention to the subject. They are not at all reluctant, even to a surprising degree, to bring up matters from their personal lives, sensing correctly that the importance of an issue does not disqualify it

from being discussed in a thoughtful, objective manner. Their enthusiasm about the opportunity to discuss ethical questions may reflect the expected youthful exuberance directed to any new area, especially an area that allows one to air types of questions usually shied away from in other formal studies. Nevertheless, the responses are indicative of a satisfaction derived from having been credited with the ability to venture into this area of thought. Here is a sample of rather typical responses:

"This class helped me a great deal. It has helped me take a different and better outlook on life. The book along with the discussions made me in a way fight for my beliefs, but it also let me see other beliefs and reasons behind them. It opened up a whole new world. There were situations and topics I have never thought of. This class has made me consider these aspects of life and let me decide for myself how I feel about a situation before it is thrown at me when I cannot consider it carefully. It is a class that everyone should have the opportunity to take."

"I find I am more aware of the world that surrounds me. I am more confident in not only myself but also in others. I can relate to people with whom I never related before and I am beginning to realize how others see me. I am happier with everyone I know, but most importantly I am happier with myself."

"Time after time, situations would make me recall my Philosophy class. I was not sure I would find the class interesting, but I enjoyed it very much and have really gained from it. The book helped a lot. It was written on our level and gave examples and situations I could relate to. I am glad to find out that there will be Philosophy offered for students next year."

"The course has made me aware of many things that I am going to have to deal with in life. I have also learned how to use my ethical judgment in these matters and not to worry what other people think."

"Everybody needs this course before leaving high school. It really helps you understand yourself and others as well."

"The course really made me think."

"We were able to talk about a lot of subjects that everyone would like to bring up but doesn't know how to go about it."

"I first took this course to get out of an Algebra class. But since I have been in here I have learned a lot about thinking for myself."

In my opinion, the choice of the text to be used in a high school ethics course

is not of crucial importance. The text approach may vary and may introduce the student to the subject from many directions. As long as the objective is to stimulate a student's critical powers in this area, almost any competent text will do, provided it does not presuppose previous philosophical sophistication in the technical sense. In any area of study it is important to start with an identification of data and situations — factual and institutional — within which questions are raised and answers sought. A completely unstructured, free-wheeling, and wholly open-ended discussion, with no control of perimeters within which it is to move, is likely to be unproductive or boring or both, even though it may generate spontaneous "self-expression." One pedagogical device, used successfully by Mrs. Violet Lee at Westbury, was to assign a section of the book to a student, who was then expected to come to class prepared to summarize the content of the section, to answer some questions which followed the expository material, and to act as a moderator of the discussion by the whole class.

Having raised the question of the content of a course on ethics, let me offer a few comments on my text. One of its objectives is to dispel the common assumption that ethics or morality (I use these terms interchangeably) is restricted to a small corner of life and deals only with special phenomena, such as sex or crime. For some people morality has a connotation derived from such phrases as "he was arrested on a morals charge." It is not too difficult — and highly desirable, I believe — to show how moral questions pervade every corner of daily life. Part of moral education consists in learning that moral problems arise in various kinds of contexts and that it is useful to distinguish among them. Here moral education merges with the wider philosophical objective of introducing a certain sense of categorial order into our understanding of the world.

The contexts in which ethical thinking is to be done are characterized in separate chapters, each adding a new level of complexity. The first chapter, entitled "Managing Things," deals with physical, bodily aspects of life: food, clothing, shelter, sex, stimulants (the last topic dealing with the role of substances that

affect our bodies from inside). Then we move to "Living With Others," where by "others" are meant persons with whom a close, even intimate contact is normally established: parents, siblings, relatives, peers, teachers. The next chapter discusses "Relating To Institutions": schools, government, industry and business, entertainment world, voluntary associations. The transition from the personal to institutional way of being related to other people calls for a recognition of a corresponding change in the character of the moral bond, the existence of which often tends to be overlooked in the academic contexts, in media, and in public life. A still wider circle is drawn in the chapter entitled "Taking Part In History," where the objective is to show that it is desirable to become aware of larger forces that play a role in our personal and social destinies. Here the student is introduced to the following topics: geographic orientation, historical consciousness, community participation, political involvement, and global awareness.

moral principles as either operating in a social vacuum or in the recesses of subjective solitude. Instead, he will realize that they are concretely applicable to life.

Throughout the book the student is encouraged to recognize that thinking about moral issues can be conclusive without always favoring simple answers. At the end of each section numerous questions are constructed around imaginary situations, inviting the student to think about possible solutions, in many cases leaving it clear that there are cases in which one can be quite confident about the rightness or wrongness of a proposed solution. There are only occasional references to some prominent philosophers or schools of thought; at this stage it seems more appropriate to deal with the subject itself rather than with philosophical theories about it. Nevertheless, it is not unlikely that a reflective approach to ethical questions in early stages of one's education will lead to a continued cultivation of one's whole mind.

arena of our wants, desires, interests, and emotional needs is to indicate that in moral education we are not faced with two mutually exclusive alternatives — either one uses a philosophical approach or a psychological one. I want to claim that both approaches have the same objective: *to strengthen a person morally*. This can be put another way: if one's motives and choices are subjected to reflection and prepared by thoughtfulness and understanding, a person is likely to be stronger in the sense of being more effective in reaching his or her acknowledged objectives.

In this connection it should be noted that the adjective "philosophical," as used to describe the features that characterize the element of reason, of thinking in moral decisions, need not be seen as an invention of a special tribe of people called philosophers. On the contrary, the philosophical capacity is no more than the capacity for reasoning and thinking, and it is universally present in all persons, including children. It is a mistake to leave that capacity unemployed in such an important area of life as morality. We have seen some spectacular successes when the opportunity to reason philosophically was introduced even on the elementary school level.

"We were able to talk about a lot of subjects that everyone would like to bring up but doesn't know how to go about it."

* * *

The objective pursued in all these chapters is to characterize the circumstances which open us up to various spheres of life, each giving rise to a variety of ethical questions. With all of this as a background it seems desirable to turn to topics that traditionally have been regarded as of primary interest to moral education. The final chapter is called "Finding Oneself" and covers the following phenomena: forming a character, developing a personality, choosing a career, steering a new course, and shaping a way of life. The first section contains a discussion of some explicitly ethical virtues, such as honesty, courage, loyalty, kindness. The main reason for treating the person-oriented topics at the end rather than at the beginning of the book is that the student will have been introduced to many contexts where personal ethical orientation may be relevant. He may be less tempted to regard

If the aim of moral education is to affect the whole mind of a young person, then it may be necessary to take a second look at the distinction between the philosophical and psychological approaches, made by Professor Henry C. Johnson, Jr. in the first issue of this Journal. He is right in claiming that the psychological approach, by concerning itself primarily with the emotional side of our choices — with what we want, are inclined or are likely to do — fails to consider the role of reasoning, of *thinking* about values. It is one thing to be motivated, and another thing to be justified. If our choices are not subjected to a rational appraisal, to a careful sorting out and a competent understanding of alternatives, they are likely to be blind and to suffer unforeseen and unwelcome consequences.

To introduce the factor of reflection, thinking, and understanding into the

The principle on which I want to base my argument is the one propounded centuries ago by Francis Bacon: knowledge is power. Quite appropriately, we think of this principle mainly in the context of science and technology — topics of central importance to Bacon himself. But the principle was a wider scope of application. It even is related, I believe, to the Scriptural saying: you shall know the truth and the truth will make you free. Freedom and power are closely related. To possess the truth is to be free of the encumbrances and obstacles of error and ignorance; it means to see clearly and confidently the path and the alternatives before us. But to see clearly what and how something is possible is to be in a position to utilize that knowledge in one's actions. That is how knowledge, freedom, and power interconnect.

By power is understood not physical force but psychological strength derived from confidence about the facts surrounding us. Such a confidence is not blind if it has at its disposal and as its

guide a correct appraisal of actualities and possibilities. Action taken from such a thoughtful awareness can be supported and justified by reference to known facts. This possibility makes a discussion about moral issues open to public debate and verification. Such a debate may obviously include a reference to shared moral principles, and it is also a matter of ascertainable fact whether the invoked principles are shared. When the discussion turns on the validity or applicability of principles, the need for examining their factual consequences becomes a part of the situation to be clarified.

In morality, as in other areas of life where thinking is not only in order but imperative, it is possible and desirable to be knowledgeable about relevant facts and principles. Psychological assurance based on ignorance or shortsightedness is a fraud and soon betrays its weaknesses. A belief maintained vehemently but blindly, with no regard for such factors as its source, its background, its testability by rational considerations, and its likely consequences, sooner or later is bound to lead to frustration, confusion, uncertainty, fear. In actual life we cannot easily escape these factors, for we are accountable, and usually are *held* unaccountable for the way we act on our beliefs. When undesirable consequences flow from our beliefs and actions we are rightly expected to explain and to justify ourselves. A part of moral education consists in making such a self-justification rational and plausible. To lack the ability to offer such a justification is to be morally at sea — incompetent, inarticulate, or merely opinionated. But to be at sea, as this metaphorical expression intends to convey, is to be imperiled, vulnerable, powerless.

The objective of moral education is to enable a person to be strong in the sense just described. More specifically, it is to prepare young persons to act with confidence in the light of competent discernment and proper understanding. If moral convictions are the result of well informed, carefully reflected on, intelligently supported, rational judgments, then it is not the question of *whose* values or *whose* moral truth is to be disseminated. It is not a matter of *competition* between family and church, church and school, or family and

church. Each can contribute positively to the process of strengthening moral capabilities of children. We lose sight of the problem when we transform it into the question of whose values are to count, or who is to exercise the dominant influence. Only if one thinks that morality consists in holding on to a small collection of static precepts and plugging them in unreflectively into some sticky points in one's journey through life, will one be inclined to guard jealously and intolerantly the particular set one happens to favor.

Moral competence does require the adoption and appreciation of principles and precepts, but it also requires an attention to facts and relationships in which these principles are to do their work. At all times, and especially at times of rapid change, such as ours, there is a need to examine the ways in which the tried and true principles fit the new circumstances. It is difficult to keep a moral code closed and static in a social situation that is admittedly open and dynamic. Social changes are bound to bring about changes in moral outlook as well, and it is not a foregone conclusion that these changes will always be for the worse. The ongoing debate about difficult issues concerning our basic institutions and practices is not forced on us onesidedly by evil persons; they have arisen from the complexities of modern life in a world in which intense exchanges of beliefs, values, opinions, and life styles proliferate. To try to stop this process or to be oblivious to its impact, for better or for worse, is to act like an ostrich.

We should begin by granting that all parties — parents, teachers, churches, and countless other social institutions — have one common moral goal: to encourage in the young generation a confident, knowledgeable, thoughtful discernment of the moral consequences and implications of our actions. Shortcuts are usually shortsighted and often harmful. When a young person is encouraged to look at morality as a mere depository of static, stock answers, his moral strength remains undeveloped, leaving him insecure and vulnerable to specious argument or slick persuasion. Insecurity in turn breeds distrust, isolation, and sometimes panic, or, as a defensive reaction, it is transformed into intolerance,

elitism, and exclusivism.

In devising a program in moral education we should ask ourselves whether it would contribute to the objective of making our children more sensitive to their options and opportunities, more thoughtful and more confident about choices they cannot escape making. We should do all we can to encourage in young persons the emergence of competences that can help them to reach the state of moral maturity, when both the emotions *and* the intellect are morally educated and when they can act from principles they understand and appreciate — in other words, when they are in a position to defend their beliefs and choices by thoughtful, informed, considered judgment.

To agree on this one overriding objective is to steer away from invidious distinctions concerning the competence of various groups to contribute to the moral development of children. Neither the family, nor the church, nor the school can do the job properly all by itself. Each must do what it can, and what it can do best depends on the kind of contact it has with the members of the new generation. Each group has its special obligations, assets, and limitations, and no one can do the work of the others. But they can all unite in trying to help our children to become morally stronger.

To say that moral education belongs either in the home or in the school is to utter a half-truth, and we would do well to grant each source of moral strength its proper weight. It may be the case, as some charge, that as a society we do not do enough to attract to the teaching profession our ablest or soundest men and women. The teachers, on the other hand, can return the compliment to society at large (or to those who purport to speak in the name of it): "you ain't so handsome yourself." To say that schools alone are responsible for various ills that worry us — truancy, run-aways, smoking, alcoholism, drugs, high crime rate, high divorce rate — is to put on an undeserved halo. We must bury our hatchets and reconcile our differences if we are to make a hopeful start toward helping our children to become morally stronger. Our future, and theirs, may depend on how well we perform this task.

Learning To Reason

Emile Durkheim

Emile Durkheim (1858-1917) was one of the pioneers of sociology. In order that the study of society be non-reductive, he argued that certain occurrences are "social facts". Such facts consist of

"ways of acting, thinking, and feeling, external to the individual and endowed with a power of coercion, by reason of which they control him. These ways of thinking could not be confused with biological phenomena, since they consist of representations and of actions; nor with psychological phenomena, which exist only in the individual consciousness and through it. They constitute, thus, a new variety of phenomena; and it is to them exclusively that the term 'social' ought to be applied."
(The Rules of Sociological Method.)

Since social facts consist of ways of thinking, feeling and acting, it is not surprising to find that, for Durkheim, the improvement of society can come about through improved ways of thinking. Education for rationality therefore has, from his point of view, a major role to play in social reform, as well as in the conservation of the best among society's traditions.

Durkheim was a professor of education as well as of sociology. He taught pedagogy all his life, giving weekly one-hour lectures on the subject from 1887 to 1902 in the Faculty of Letters at Bordeaux, where his audience consisted mainly of primary school teachers. At the Sorbonne, at least a third, and often two-thirds of his teaching was in the area of pedagogy. One course which he presented was entitled "Intellectual Education in the Primary School." It was completely written out, and is summarized by Paul Fauconnet in his introduction to the original edition of Durkheim's Education and Sociology. Unfortunately the manuscript, which was never published, seems to have completely disappeared. Perhaps we can get a glimpse of its content from the final paragraph of Fauconnet's discussion of the course:

"Durkheim's conception of teaching... provides the principle which alone will make it possible to resolve the difficulties with which our primary and secondary education is struggling, torn between encyclopedic aspirations and the fair sense of the dangers to which they give rise. Each of the fundamental disciplines implies a latent philosophy, that is to say, a system of cardinal notions which sum up the most general characteristics of things as we conceive them, and which govern their interpretation. It is this philosophy, product of the cumulative work of generations, that must be transmitted to the child, because it constitutes the very framework of the intelligence. Philosophical and elementary are not mutually exclusive terms. Quite to the contrary: the most elementary education must be the most philosophical. But it goes without saying that what is here called philosophy should not be expounded in abstract form. It should emerge from the most familiar teaching, without ever being formulated. But in order so to emerge, it must first inspire such teaching."

Although we are unable to present an excerpt from Durkheim's work on intellectual education in the primary school, we have the consolation of being able to read Durkheim on education for rationality in the final chapter of his study of the history of secondary education in France, translated as The Evolution of Educational Thought. The passage that follows is from pages 339 to 348 of that work, and is reprinted here with permission of Routledge & Kegan Paul Ltd., London.

The educational value of the study of literature resides not solely in the aesthetic merits of the works. If this were the case the domination of our own academic system which has for so long been exercised by Latin would be inexplicable. The value of these works is that they show man in all his aspects and consequently reveal his nature. But the sciences are also human achievements; they too are a product of the mind, and consequently manifest its nature. Science is human reasoning in action. Once we have empirical science, literature can no longer constitute the exclusive subject-matter of even a purely human education, for there is a whole area of humanity which is being excluded. If it is essential for us to know the extreme diversity of feelings which have stirred the human heart, that we should have lived them through thought, as well as the great moral religious and aesthetic beliefs which men have held, it is no less important that we should be initiated into the advances and procedures whereby human reason has progressively taken control of the world.

This initiation is not of purely theoretical and speculative interest; these processes of scientific thought must be known not simply for the satisfaction which knowing them provides, but in order that we can assimilate them ourselves. Science contains ways of thinking and reasoning which we cannot learn in any other school and of which we should know nothing if science did not exist. It is a mistake to think that all the logical faculties, all the intellectual operations which science uses, exist in us ready-made; and that it is consequently only a question of becoming aware of them, of exercising them, and of applying them, as the Scholastics thought. If this were the case, would logic have undergone all the successive variations which it has seen in the past? Did man have any idea of what the inductive method was, or experimental reasoning, before the experimental sciences became established? Even in the seventeenth century a man like Bacon only had a very vague and vacillating notion of induction. Similarly it was only when the mathematical sciences had reached a certain degree of development that the nature of deductive reasoning was fully understood. In-

deed there is no science whose principal advances have not consisted in the fortifying, refining and perfecting of the logic of its own procedures. There is a whole area of logic which is by no means the least complex nor the least important, and whose discovery was the result of science and certainly did not precede it. Consequently it is only by living the scientific life that we can acquire an understanding of this logic. This is because science is not the work of isolated individuals; it is the product of co-operative enterprise in which scientists of all kinds and of all places come together. Thus it represents, at each moment of its history, a kind of resume of human experience as this has been concentrated and accumulated year after year, from generation to generation. Its intellectual worth is consequently and quite naturally infinitely greater than that of individual minds operating on their own and without recourse to anything other than themselves. This explains why it is from science that we have everything to learn; in science we find a kind of exemplary rationality which is the ideal model upon which our individual rationalities should seek to model themselves. Philosophers have often speculated that, beyond the bounds of human understanding, there is a kind of universal and impersonal understanding in which individual minds seek to participate by mystical means; well, this kind of understanding exists, and it exists not in any transcendent world but in this world itself.

It exists in the world of science; or at least that is where it progressively realises itself; and it constitutes the ultimate source of logical vitality to which individual human rationality can attain.

Teaching of the sciences serves not only to render the world familiar and, consequently, to perfect our understanding of man; it is an additionally invaluable tool in the development of logical thinking. And here we have the means of filling the serious gap — which we have had occasion to note — in our secondary education. In fact, we have seen how the training in logic which had been instituted by the Scholastics was swept away by the Humanist revolution without anything being put in its place. Now, it is difficult to regard as being entirely normal an educational system

which interests itself so little in the development of those faculties which make for logical thought. Of course, there is no question of going back upon our unequivocally expressed condemnation of Scholastic formalism. Scholasticism was a response to an age in which the experimental method was unknown, and in which thought could only make contact with external reality via the medium of those opinions which men formed concerning it, by confronting these opinions with one another by means of argument. Today, thanks to the experimental method, we can reason about things directly and without any intermediary; new forms of argument have been born, a new kind of training in logic has become possible, that training which is generated by scientific life itself. In order for this kind of training to become organised and as fertile as can be expected it is, in addition, necessary that the teacher feels the necessity of it. He must, that is, realise that his job is not confined to expounding the particular results of the science for which he is responsible; he must also and above all explain the methods, the mental operations, the logical mechanisms of which these results are the product. The methodology of the sciences, which today is touched upon in the philosophy class alone, should not be divorced from the teaching of the particular sciences. On the one hand, only he who has practised the sciences is equipped with the necessary competence to render its methods intelligible. On the other, this method can only be really understood by the pupils if they see it in action, if they have it explained to them at the same time as it is being applied, if they are trained to practise and apply it themselves. It will thus be up to the teacher of the sciences to teach the methods which he uses, the reasoning underlying them, and the principles upon which they are grounded. Unfortunately, we know only too well that in this sphere everything remains to be done.

Training in this kind of reasoning is all the more valuable because it can be put to work not only in the study of material things but in the study of man himself. The idea, indeed, is becoming increasingly well established that man is not a world within a world, that he is not separated by a void from the rest of the universe. Increasingly the tendency is to

see the human domain as simply the natural domain which, of course, has its special features just as the biological domain has its special features by comparison with the domains of physics and chemistry, but which is subject to the same essential laws as the other realms of nature. If that is the case there can exist no special privileged procedures for understanding it, no mysterious avenues which allow us to dispense with the tortuous and toilsome roads which physicists, chemists and biologists are forced to follow in their investigations. If human reality is a reality like any other, then in order to discover its laws it will not be enough to turn oneself inwards, to meditate internally and to make deductions. Rather must one observe it in the same way as we observe things in the external world, that is to say from the outside; we must experiment and make use of deduction or, if experimentation in the strict sense is in practice impossible, we must find a way of setting up objective comparisons which can fulfil the same logical functions.

These new methods and the key ideas from which they derive: where can they be learned except at the school of the sciences, which have already advanced them to such a high degree of perfection? Everything points to the fact that the great gulf which still separates the study of physical nature and the study of human nature is now nothing but a relict which is destined to disappear. The day will soon come, and we must seek to hasten it, when the idea of trying to educate an historian or a linguist without first of all initiating him into the discipline of the natural sciences will appear to be a veritable aberration. It is obvious that, to the same extent that we think it necessary to adopt the same attitude in regard to ourselves as the scientist adopts in regard to things, we must train our children in the *lycees* to take up this essential attitude towards the world of persons. A sound scientific education seems to be an indispensable condition of all truly human education.

Thus the study of the sciences, far from constituting a kind of intrusive and alien element in our educational system, far from being an outsider to it and a threat to its economy, is in reality a valuable auxiliary, and an essential element in the older humanistic education

which for so long was completely predominant. Although it is orientated towards the outside it leads us away from ourselves only to bring us back to ourselves; but it brings us back armed with, and enriched by, precious insights which cast new light upon our own nature. Between these two kinds of discipline there exists close solidarity. This solidarity is even more absolute than might appear from what has already been said, for it is reciprocal. Not only is it the case, as we have just seen, that natural science helps us to understand mankind better; but the study of things human, in addition to being intrinsically indispensable, is also a necessary preparation for the study of the world.

Indeed, the logical training which emerges from the practice of the positive sciences is not enough on its own; it presupposes something else which is more elementary and which must be sought at a different source. In order to derive value from an initiation into the natural sciences one must already possess a certain mastery over one's own thinking; one must have already acquired a certain aptitude for clear, distinct and coherent thought. This requires a whole education which must begin before scientific education, and which must be pursued for many years in parallel with it.

Naturally, thought presents itself to the mind in a global and confused form. It is not an organised series of clear ideas, not a chain in which the rings are firmly linked to one another; rather it is that the diverse representations which we experience simultaneously are lost amongst one another so that we cannot say where one begins and the other finishes. They are so intimately interpenetrated that they exchange their identities. The affective state in which we find ourselves at any given moment adds its own colouring to the ideas with which our consciousness is filled at the time, so that everything seems sad or gay to us depending on whether we ourselves are feeling sad or gay. Impressions vary completely, depending on those which have gone immediately before: this is known as the law of contrasts. In this way the images which an object may have left in our memory come to mingle with the sensation which we are presently experiencing so that together they form a confused whole in

which it is impossible to distinguish what derives from the past and what is due to immediate experience.

This vagueness reaches maximum intensity in the child, who cannot distinguish sensations from one another, who cannot even locate them at specific points in space. Because this confusion is fundamental it permanently inheres in the natural movement of thought. When we reflect on a subject or a question, what we notice first of all are vast blocks of vague ideas, of representations which are synthetic and consequently confused. Logical thought, by contrast, is made up of specific conceptions capable of being formulated by definitions which map the boundaries separating them from related but different conceptions, and which, by means of such a limitation, avoid the mix-ups, the interpenetrations, all the symptoms of contamination by illogicality whose consequence is confusion. Between the point of departure and the point of arrival, between spontaneous thought in the state of nature and logical thought which is reflective, self-disciplined and self-conscious, there is thus a great gulf fixed. How has man been able to bridge it?

Principally by means of language. It is words that introduce distinctions into the thread of our thinking. For the word is a discrete entity; it has a definite individuality and sharply-defined limits. In order to express our ideas by means of words we must separate them out; we must shatter the natural nebulosity of our thought and resolve it into its elements. In a sense, language does violence to thought; it denatures it and mutilates it since it expresses in discontinuous terms what is essentially continuous. This is why it is true to say that we never succeed in fully expressing our thought; it's because the contents of consciousness cannot be translated by language except approximately, just as the continuity of geometrical sizes can only be approximately expressed through the series of numerals. Of course, it would be quite erroneous to say that language must do everything, that it is the sole agent of distinctiveness and clarity. Nothing can absolve consciousness from the task of grasping a confused collection of thoughts, of isolating it, of concentrating upon it all the light which it can command, and of

illuminating it in such a way as to make plain the unperceived elements of which it is composed. It is that tentativeness and concentration which are the active tools of all intellectual analysis. However, the results of this analysis would remain remarkably precarious, they would very soon evaporate, and thought would return to its original state of confusion, if they were not cemented by words; for words give them a consistent and individual existence which enables them to survive. From another point of view, in order to think clearly and distinctively it is not enough to analyse our ideas. We must additionally bring back together the different elements which we have dissected in order to reconstruct the natural whole to which they belong. This reconstruction does not consist in assembling things mechanically from the outside; for these fragments of thoughts are parts of a living whole. They vibrate in unison with one another, they call out to one another, they are mutually sympathetic and converge upon one another; between them there exists all kinds of relationships, relationships which may run parallel, be those of dependency, be oblique or otherwise. But how could we represent to ourselves with anything approaching clarity these niceties (which are so complex and so fleeting) if we had not had at our disposal the artifice of language, of verbal flexions, of grammatical agreements, of rules of construction, and even special terms to express certain of these relations (notably prepositions and conjunctions)?

If we owe to language the introduction into our mind of distinctness and logical organisation, the study of languages is obviously the best way of accustoming the child to distinguish and to organise his ideas logically. It is by making him reflect on words, meanings and grammatical forms that we can best train him to think lucidly, that is to say to grasp the elements and relationships of thought. It is this which constitutes the great service rendered by the linguistic exercises which still play such a large part in our classes. There is no question but that, from this point of view, the classical languages offer special advantages. Precisely because the classical peoples are far removed from ourselves in time, their manner of

analysing their thought was very different from our own; and it is this very difference which renders Latin and Greek an exceptionally effective stimulant for this special kind of reflection. A French word, an English word and even, most commonly a German word overlap exactly, at least in the generality of cases, and this overlapping is bound to be constantly increasing. The result is that transposing a term in one language into the other can be done easily and almost unconsciously. The case is quite different with Latin and Greek. Here the pupil is forced to make a quite special effort in order to become aware of the thought expressed by the words he is translating from French into Latin or vice versa. This fact alone trains him in the making of distinctions and the habit of clarity. Similarly and for the same reason the practice of translating Greek and Latin from and into French, because their grammar is so very different from our own, forces the child to be constantly engaged in logical analysis; he must be perpetually aware of relationships which exist between ideas as these are expressed through grammatical forms.

But it is not the case that Latin and Greek are irreplaceable. It is possible to find valuable substitutes for these classical exercises. Whatever may have been said about it, I do not believe that we should place too much confidence in living languages; first of all, there is the reason I have just indicated, namely the ancestry which these languages have in common with our own. And then there is the reason that the use of direct methods demotes translation and prose composition to secondary roles and, by definition, virtually excludes all exercises in transposition. But what would be possible would be deliberately to institute methodical and repeated exercises in vocabulary. Why not train the child to a perpetual awareness of the meaning of the words he is using? It would be necessary somehow to get him at each age to define the terms in his vocabulary, to stimulate him incessantly and by every means available to make himself conscious of his ideas. Moreover, these exercises would be more beneficial for not being undertaken haphazardly; the words to which his attention would be directed could be

grouped rationally according to their etymological relationships or according to the relationships of their meaning, depending on the particular case: all the possible combinations must be used. A whole discipline, of which I can do no more than sketch the principle, is waiting to be instituted with this goal in mind. It could prove most fruitful if it were applied systematically and methodically.

Similarly, instead of the automatic logical analysis which is required by classical prose translations, we could have recourse to repeated exercises in logical analysis in the strict sense, provided this did not consist in something that was merely arid, blind and mechanical. There is nothing more instructive than getting children to understand how a proposition or a sentence is made up, how the elements which comprise it tie in with one another, how certain of them gravitate in the orbit of the others, how some of them command while others are commanded. We should inculcate this understanding in them by way of repeated exercises in which, however, repetition does not render the exercise of intelligence otiose. In short, grammatical culture, rightly understood, ought to regain something of the place which it used to occupy in our schools, and which it has long since lost.

These initial exercises constitute only a first stage which we must get beyond as quickly as possible. From the sentence and the proposition we must move on to paragraphs. We must confront the child with a piece of developed writing and incite him to resolve it in its elements. The lessons which he is given in history or other subjects should be conducted with the same end in view. They should be constructed in such a way that he can clearly see the composition. In the first place, we would begin by showing it to him, not by means of summaries which are compacted and hence indigestible, but by means of plans which would show clearly how the thought was linked together; in other cases we would encourage the pupil to discover this for himself. In a word, we must take as our overriding concern during the early years the constant multiplication of opportunities for letting the child dissect and reconstruct his own thinking. In this way we shall arrive

progressively but without haste at stylistic practice proper. For stylistic training should be understood, first and foremost, not as a means of teaching children to write elegantly and eloquently, but as a more complex exercise in analysis and logical synthesis. If we need to get him to deliver narratives in his own language, it is not only so that he may know how to express himself gracefully; it is above all because there is no better way of teaching him to speak lucidly, and this is a consequence of the special role which language plays in intellectual life. And as the habit of lucid thought is a prerequisite for the study of the sciences it is clear that a training in style is no less essential for scientific education than for so-called 'literary' education. This is why the study of style — that is to say of grammar and of language — constitutes the common basis of all education.

When I began this work, my principal object was to pose the problem of secondary education as a unity. We are today in a position to see what is the source of this unity; it is man. All education is necessarily anthropocentric, which is something the Humanists understood full well. However, man is only a part of the universe and he cannot be detached from it. From this it follows that an education in things human presupposes an education in the things of nature. Since the relationship between nature and man is not solely one of neighbourliness but rather of close kinship, since man exists in nature and emerges from it, not only do these two kinds of education complement one another, they also interpenetrate one another, they act and react upon one another. They exchange good offices with one another so that the study of nature finds in the study of language — which is something supremely human — an essential preparation; and the study of man discovers in the study of nature some key conceptions and the methods with which it ought to be informed. Thus if these two kinds of discipline can be unequally developed; if it is possible in particular cases to lay emphasis now on the one, now on the other; if, in this regard, there is a case for introducing a certain amount of diversity into the academic system, there can still be no education which is capable of omitting either the one or the

other.

In this way we can see the sense in which education ought to be encyclopaedic. The idea of encyclopaedic culture we have seen surviving and developing with such persistence from the earliest origins of our academic evolution that it is impossible that it should be a mere fantasy. It constitutes a response to that very profound insight that the part cannot be understood without some conception of the whole from which it emerges. However, the only form of encyclopaedic knowledge which is both desirable and practicable is not that about which Rabelais, for example, used to dream; nothing is more a waste of time than the attempt to cram the entire subject-matter of human knowledge into the brains of young people. But what is possible is to acquaint their minds with all the diverse intellectual attitudes with which they will need to be equipped when one day they come to confront the different categories of things. Under these conditions an encyclopaedic education would not need to be either over-ambitious or overloaded.

Thus we come quite naturally to the word, to the formula, which sums up this educational ideal and which will constitute our conclusion. Our goal must be not to turn each one of our pupils into a perfect polymath but to render, in each one of them, the faculty of reason comprehensive. Humanism, in its most elevated form, in its Cartesian form with Port-Royal, the Oratory and their imitators, set itself the task of moulding the reason; but it was the reason of mathematicians who could only see things in simplified and idealised form, who reduced man to clear thinking and the world to its geometrical forms. Still today, we must remain Cartesians in the sense that we must fashion rationalists, that is to say men who are concerned with clarity of thought; but they must be rationalists of a new kind who know that things, whether human or physical, are irreducibly complex and who are yet able to look unflinchingly into the face of this complexity. Our children must continue to be trained to think lucidly, for this is the essential attribute of our race; it is our national quality, and the qualities of our language and our style are only a result of it. But we must give up mistaking

simple conceptual combinations for reality as a whole; we must feel more vividly the infinite richness of reality, we must understand that we can only succeed in thinking about it slowly, progressively and always imperfectly. This should be the goal of the triadic culture which is implied by an education concerned with the development of the whole man through the most effective methods: linguistic culture, scientific culture, and historical culture, such as we have defined them.



Review Essay:
John Wilson's
Contribution to
Moral Education

William C. Fish

Since 1965, John Wilson, now with the Institute of Educational Studies, Oxford, has been working at developing a scheme for moral education which is both conceptually and empirically sound. First under the sponsorship of the Farmington Trust (1965-1972), then under the Warborough Trust, in conjunction with the Oxford University Department of Educational Studies, Wilson and his colleagues have produced some dozen publications, six of which have been selected for review and comment here. The accelerating interest in moral education in this country and Canada might be enriched by a closer acquaintance with this substantial body of work. It is rather different from the more popular domestic moral education projects in that it marries an intricate conceptual analysis to psychological and sociological research in the development of both theory and practical recommendations. In view of the fact that our domestic projects are often criticized for being either conceptually weak or empirically untested, we have much to learn from the strengths and weaknesses of this effort.

The Books In Brief

Introduction to Moral Education

John Wilson

Norman Williams, Barry Sugarman.

Baltimore: Penguin, 1967. 463 pgs.

Conceptual groundwork on the need for a new kind of moral education: one based on reason rather than external authority. Initial development of the logically necessary components of the morally educated person. Additional sections by a psychologist, Norman Williams, and a sociologist, Barry Sugarman, on what those disciplines can contribute empirically to the development of the morally educated person. A brief treatment of the relevant methods and curricula for schools, emphasizing close personal contact, reasonable use of school rules, encouraging the autonomy of the student and cooperation. Appropriate context as important as content. A stimulating, occasionally tedious example of some genuinely interdisciplinary research in the field.

Education in Religion and the Emotions

John Wilson

London: Heinemann, 1971. 268 pgs.

An expansion and reformulation of the thesis the earlier book, here focused on the education of the emotions— *i.e.*, becoming more reasonable in the sphere of the emotions— and religious education as one area of that sphere. A suggestive, insightful, occasionally perplexing effort to bring emotion within the scope of deliberate education. The tax-

onomy of the earlier book is expanded to account for the role of unconscious emotions. Discussion of the content, context and methods of schooling directed towards these ends. An excellent essay in the appendix on the concept of insight and its use in understanding "unconscious" emotions.

The Assessment of Morality

John Wilson

Slough, NFER, 1973. 115 pgs.

Primarily intended for psychologists and social scientists who want to do research in the area of moral education, though useful to others who want a more detailed understanding of the components, here expanded from the original four to sixteen! Lengthy discussion of assessment problems in the cognitive and affective domains.

A Teacher's Guide to Moral Education

John Wilson

London: Chapman, 1973. 141 pgs.

This book is divided into two parts. The first is a simplified treatment of the conceptual analyses and conclusions of the earlier works, dealing with common misunderstandings of the nature of morality, the concept of moral education as "being reasonable" in moral matters, the relation of religion to moral education, the principles and problems of assessment, and the contribution of psychological and sociological evidence. The second part spells out the practical implications of the theory and suggests several methods for teaching. Helpful list of other readings, projects, and sources in the appendix. Probably the best book to start with. May only be obtainable in England.

Practical Methods of Moral Education

John Wilson

London: Heinemann, 1972. 152 pgs.

A more extensive treatment of the four methods of moral education described in the previous book. The "direct method" aims at teaching the methodology of making moral judgments and directly cultivating the components. A second method develops competence in the use of language, including the rules for rational discussion. The third method focuses on the use of contracts and rules in decision procedures. The fourth method involves structuring the



school community to enhance development of the components. As a whole, the book aims at giving teachers criteria for selecting what is relevant from the wealth of more practical classroom materials already available.

Moral Education and the Curriculum

John Wilson

Oxford: Pergamon, 1969. 37 pgs.

A brief handbook with sample charts to help teachers and researchers assess curricular practices according to the aims of moral education and the education of the emotions. By itself, this book does not give a sufficient account of the conceptual analysis which lies behind the framework. It should be used only in conjunction with one of the other books above.

The moral education industry in this country has gained so much momentum in the plethora of recent projects¹ that professional attention is largely focused on the development of curricular and assessment materials. The question of the legitimacy of the enterprise is, for the moment, faintly heard. As the projects multiply and Moral Education Associations are formed, spinning off more journals, tests and curricula, we may expect the increased visibility to provoke a response from those fearful of the illegitimate imposition of moral beliefs in the public schools. Carl Bereiter has recently challenged the propriety of moral education in the schools on First Amendment grounds. He doubts that current moral education projects— Values Clarification and

Kohlberg's Cognitive Developmental Scheme, in particular— can in fact “develop moral persons without imposing on them any sort of moral beliefs,”² as they claim. Public School parents and teachers do not yet seem to share Bereiter's disquiet, as indicated by a Gallup Poll³ in which 84% of the parents interviewed favored instruction in morals and moral behavior in the public schools. A poll by Phi Delta Kappa⁴ of a sample of its membership found 88% in favor of an active program of moral education in the schools. The appearance of a mandate in these figures is deceptive when one considers that those who respond affirmatively to these polls probably have in mind a program which would (1) control unruly behavior and (2) enforce their own particular moral ideas. The possibility that moral education might promote moral ideas different from or even in criticism of their own ideas probably doesn't occur to many, but it is not only possible, it is inevitable. When more parents and teachers come to experience this threat to their own moral ideas as programs are actually put in place, Bereiter's disquiet may crescendo. Is it possible to conceive a form of moral education which is neither partisan, imposing particular moral beliefs, nor vacuous, merely descriptive of moral ideas? John Wilson thinks there is.

Wilson would be sympathetic with Bereiter's disquiet, but disagree with his conclusion, namely, to maintain the moral neutrality of the public school by delimiting discussion of morality as much as possible. Not only does the delimiting alternative fail to teach anything which might be called moral education, it seems to be grounded in a naive view of neutrality. In order to answer the question, can moral education be non-partisan or neutral, we have first to consider what various meanings “neutral” might have.

“Neutral” might mean (1) “fair to all relevant points of view” or (2) “devoid of any point of view.” It is difficult to imagine saying anything worth saying about moral education (or anything else) which is devoid of any point of view. Mere descriptions without criticism or commitment would be neither educational nor moral. Being fair to all points of view might be impossible, or at least

deceptive, if the points of view one is trying to be fair to make exclusive claims to truth. Is a third form of neutrality possible, namely, that of being “reasonable” about all such claims— weighing their claims against the available evidence, using logic and clear language to explicate and compare their claims, and then arriving at one's own conclusions about what makes the most sense? It is this third form of neutrality which Wilson urges upon us since it allows us to do moral education in a way which is genuinely educational yet non-partisan.

Taking his lead from the work of R.S. Peters, Wilson begins with the premise that the concept of education logically entails the notion of becoming more reasonable. Moral education, then, is a name for becoming more reasonable about moral matters. Since education intrinsically entails the aim of becoming more reasonable, this view of moral education is not an imposition of partisan ideas; it is simply a matter of what it means to be educated. Since there is a normative element in being able to distinguish what is reasonable from what is unreasonable, this view of moral education is not vacuously descriptive; it demarcates what is successful from what is a failure in moral behavior according to the criteria of rationality.

What “being reasonable” means, then, becomes the key issue, the fulcrum on the conceptual analysis on which the rest of the scheme depends. It is dealt with in all the books, most thoroughly in the *Introduction to Moral Education* but most clearly and simply in *A Teacher's Guide to Moral Education*. It includes the familiar sort of considerations, such as using the laws of logic, using words correctly and for their correct meaning, and attending to the relevant facts in a situation. More controversial are the “particular principles” which Wilson claims to derive from the general one of “being reasonable in moral matters.” They are cast as qualities or attributes of the morally educated person, all of which are necessary, and if all obtain, are sufficient. In my own summary form, they are:

- (1) having a reason for the action (which means by autonomous, not acting according to an external authority, and acting intentionally, not reacting).
- (2) having certain kinds of relevant

knowledge (of emotions— in oneself and in others— and of other relevant empirical matters, *eg.*, health effects).

(3) having certain emotions (the “right” feeling to accompany the act, *eg.*, gratitude rather than resentment in receiving an honor).

(4) having certain skills (of “reading” emotions, of utilizing relevant knowledge, of using the laws of logic, of communication and proper use of language, and of being able to make a decision and act on it).

(5) having certain attitudes (Wilson's term) or beliefs (my term), especially regarding the equality of persons (“giving the same weight to the wants and needs of other people as to one's own”⁵), such attitudes or beliefs being consistent with the reasons for acting.

The veracity of these components is dependent upon a fair exposure to the details of Wilson's argumentation for the reasonableness of each quality. Torn out of context they are denuded of the examples and counter-examples by which Wilson tries to establish their credibility. Moreover a critical appreciation of any one component is dependent on a grasp of the set as a whole into which the component fits. Having entered this caveat against what follows, it may be well to examine critically some of the claims Wilson makes for these components, if only to reveal the limits of my understanding:

- (1) Are they actually non-partisan?
- (2) Are they clear and coherent?
- (3) Do they lead to clear-cut selections of teaching methods, curricula and means of assessment?

The crux of Wilson's claim of non-partisanship lies in the fifth component above, the assertion that a belief in the equality of persons is entailed by a reasonable analysis of what it means to be a person. In defense of the non-partisan claim, it is true that the assertion of the equality of persons is not the “property” of any one religion or moral point of view. One need not be a Christian, Marxist or Existentialist to hold it. On the other hand, it is not as self-evident as Wilson claims that equality is intrinsic to the ordinary conceptual meaning of “person”: “...people are equals because there are good reasons for thinking so. It is a matter of commonsense or simple logic. Anyone who

is willing to think about it for a bit should see the point."⁶ Would that it were so! Wilson explains away the obvious discrepancy between his claim that equality is commonsense and the abundant evidence that people do not so commonly treat each other as equals on the grounds that "we are not very good at remembering the point when we come to deal with other people."⁷ Such a view trivializes or distorts the formal (eg., Social Darwinism) and informal (Egoism) ways in which thoughtful people intentionally assert their inequality. Wilson is right in the sense that the concept of person entails recognizing that other persons have interests and needs, but he claims too much in insisting that this recognition requires me to give equal weight or worth to those interests and needs. On empirical grounds it is probably *not* the case that all persons value the satisfaction of their interests and needs equally. Even if we did, it would not follow logically that we must assign to our equally strongly held interests equal worth. More is needed from Wilson on this point since it is the crux on which his claim of non-partisanship stands or falls. I happen to agree with Wilson that we should view persons as equals but I take that to be a shaping of my view of persons by the moral ideal of equality, not a conceptual truth. In my view, Wilson's scheme is not non-partisan but it is still viable for use in American schools on the grounds that we have an historical and constitutional mandate to *be* partisan toward the moral ideal of equality of persons.

Some Difficulties

Are the components logically clear and coherent? As formulated in all the books, but especially in the *Introduction*, it is possible to see clear connections between the components, *i.e.*, how they all apply to what it means to be a reason-

able person in moral matters, but this does not establish their coherence. They are clearly of different sorts of things: attitudes, beliefs, skills, feelings, bodies of knowledge, procedures and capacities. Wilson's effort to include all the relevant factors involved in human behavior is laudable, but the effect is to obfuscate the logical identity of specific components. The components tend to be open-ended and often over-lap. GIG, the label for relevant empirical knowledge, also stands for communication skills; as such it seems devoid of boundary since it isn't clear which facts should be ruled out of consideration. EMP, the label for awareness of the emotions, is also described as a skill; yet it too would seem to include a kind of knowledge. KRAT, the label for bringing all the components together in decision and act, includes skills, feeling and procedures. It is possible to make one's own summary of the components, as I have above, but the lack of conceptual clarity in the texts present further problems for educational practice and assessment and weakens the coherence of the whole.

In all of the books Wilson asserts the need for clear aims in moral education so that teachers may have logical criteria for selecting their methods, curricula and means of assessment. Yet the vagueness of the components' logical status makes it difficult to take clear aim. What is one to aim at? Wilson asserts that the components cannot be hypostatized into "psychological entities," "forces" or "forms of thought"; they are logical constructs. Even logical constructs, however, should be amenable to clear description in terms of empirical objectives or they cannot serve well as aims. Moreover, *how* the components relate needs much more attention for understanding the actual process of decision-making. Finally,

it isn't clear from simply listing the components whether each component deserved equal educational attention. To be sure, the answer depends on the particular attributes particular students have or lack, but it would seem that, conceptually, PHIL (the attitude or belief in the equality of persons) is the most important in making the education *moral*.

As Wilson freely admits, not much has yet been done in the way of empirical assessment of these components. Although his co-researchers at the Farmington Trust have produced useful books⁸ in which the component typology is used, deliberate attempts to educate for these aims were not assessed as such. The difficulties of assessment are well explicated throughout *The Assessment of Morality*, especially in regard to holding all of the components constant save the one being assessed. If the components are labels for overlapping skills, attitudes and bodies of knowledge, control may be an insurmountable problem. This is a major weakness in the scheme to date.

The criticism in the review is by no means a disparagement of the considerable work that has been done. The attention to the whole set of characteristics which are distinctive about being morally educated, the focus on understanding the role of the emotions in being moral, the delineation of potentially assessable sub-skills, the continual marrying of conceptual and empirical concerns — all seem as right as they are difficult and unfinished. One may find much to quarrel with in Wilson's particular conclusions to date, but his attempt to formulate a conceptual model which meets both philosophical and empirical criteria of validity is one to be emulated, not discarded. The moral education industry must someday meet equally rigorous criteria in this country.

FOOTNOTES

(1) Some of the projects described in the *Moral Education Forum* over the last two years are: the "Values Education Project" of Southern Ontario, the "Magic Circle" or "Human Development Program" in California, the "Ethical Issues in Decision-Making" Project of Scarsdale-Mamaroneck, the "Carnegie-Mellon Civic Education Project" of Pittsburg, the "Dissemination of Materials Center" of Brookline, the "Association for Values Education and Research" of British Columbia, the "Minnesota Moral Research Projects" and "Values Education Program" of Guidance Associates, the "Sierra Project" of the University of California, the "Moral Education Curriculum Project" of the National Endowment of the Humanities. We can add the Harvard Curriculum Project, the Ontario Institute for Studies in Education, the Institute for the Advancement of Philosophy for Children at Montclair State College — all of which are developing materials and conducting workshops directly or indirectly related to moral education.

(2) "Morality and Moral Education" *The Hastings Center Report*, Volume 8, Number 2, April, 1978. pp 20-25.

(3) as reported in the *New York Times*, April 18, 1978.

(4) Kevin Ryan and Michael G. Thompson, "Moral Education's Muddle Mandate: Comments on a Survey of Phi Delta Kappans," *Phi Delta Kappan*, June, 1975.

(5) *A Teachers Guide to Moral Education*, p. 28

(6) *Ibid.*, p. 30

(7) *Ibid.*

(8) Barry Sugarman, *The School and Moral Development*, New York: Barnes & Noble, 1973. Reviewed in the *Teachers College Record*, Volume 75, Number 4, May, 1974.

Norman and Sheila Williams, *The Moral Development of Children*, MacMillan, 1970.

Excerpts From A Philosophy Class With Six Graders

Jonathan E. Adler

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The following dialogue took place in Berea, Kentucky with a gifted six grade class. I was in Berea for a two-week training program on teaching children philosophy. During the second week a local class was brought in and half of Chapter 5 in Suki was read to them. The rest of the hour was taken up with discussion of the material in the text. Despite the fact that they had had no previous acquaintance with the program, nor did they even have copies of Suki to look over, they actively participated in the discussion. It was felt worthwhile to pursue the discussion further, and to have one of us, in training, do the class. I volunteered.

I was extremely anxious about what would happen with the class the next day. Not only had I never taught a six grade class, but I have barely had eye contact with any persons under college age for a long time. My main inclination was to try

to pursue a philosophical idea or set of ideas that arose in a part of the story. The main idea was that of the persistence of an object through changes. For example, the person remains basically the same despite growing taller, etc. A number of philosophical problems are connected to this idea. My presentation for the class was greatly enhanced by Fred Oscanyan's gently pointing out to me that one plan I had for the class was more appropriate to a college seminar in metaphysics. After our talk late that night, I went back and somewhat revised my plan. The next morning at 10 the class came in. I had an hour with them.

[On the board was drawn a pizza and a short poem they already knew. I asked the students to compare a shift of pizza slices with a shift of lines of the poem in order to focus attention on a part of the preceding day's discussion and to start them thinking about issues of identity.]



Jonathan —... If I took this pizza pie, right? ... that's how we sliced them in New York, I know you slice them different here... if I took this slice and put it here and took this slice and put it here, OK?...would the pizza be the same or different?

Child —It depends on what kind of pizza you have. [laughter and others joining in.]

Jonathan —And so it may depend. Anybody else?

Child —It matters if the two pizzas are the same size.

Jonathan —Let's say they are, let's say I cut it absolutely perfect, so they both fit in.

Child —They could be half and half...

Child —It would be the same, you could just trade the pizzas.

Jonathan —It would be the same...

Child —Well some pizzas...you know, like one square has mushrooms on it and on has pepperoni.

Jonathan —All right, so if they had different material on it, it would effect it... if I switched them around, put one here and one here and this one here.

Child —It would change the order of them.

Jonathan —It might change the order,

but it might not change the content.

Children —no, no...

Jonathan —No? Why not?

Child —Well, because you weren't taking anything away from them, all you were doing was changing, is taking one piece and putting it here and taking one piece and putting it here. You aren't changing anything in it except the order...

Jonathan —OK, so just changing them around... OK, what about... let's take a look at a poem.... we had a poem yesterday, I guess, the one on Suki. What was that poem about? Um... Rosalee?

Rosalee —"Gardeners, roses think, never die."

Jonathan —[writing on the board] Now... what if I would have just taken this and put it up here and said, "Gardeners never die, roses think"...would I have changed the poem, would it have been the same? Will I be changing it the same way I changed the pizza?

Children —No... No...No...

Jonathan —What do you think... am I changing it more or am I changing it less?

Child —You're changing it more —

you're rewriting the poem, basically.

Jonathan —I see... so you think that somehow altering these changed... I mean altering these things...[the slices of pizza] even if it does change it, it wouldn't change it as much as say — moving these [the lines of the poem] around.

Child —yeah.

Jonathan —... let's ... what I'd like to do then is... on this kind of question is talk a lot more about it ... since you did have the books I thought that maybe I could read over a part of the chapter that Mr. Lipman read yesterday and then we could talk about it. [unintelligible muffled break]... Now you recall that... what's going on here is that they're taking a trip. Do you remember where they're taking a trip to?

Child —[muffled]...to Suki's grandmother's and her father's farm.

Child —...to her grandparent's.

Jonathan —OK, who's going on this trip? [to a child] do you want to talk?

Child —Ann.

Jonathan —And who else?

Children —and Suki.

Child —And a man called her father.

Jonathan —By who?

Child —By Suki.

Several voices chime in here, describing who went on the trip.

Jonathan —OK, so we have Suki and, who else?

Children —Suki's father.

Jonathan —Suki's father.

Children —Suki's little brother.

Jonathan —Suki's little brother and his name is...

Child —Kio.

Jonathan —Kio. Good. And they're all going to Suki's...

Child —...grandfather's.

Jonathan —Grandfather's. Um, OK, so they get to the farm and their grandfather shows them around, and I'd like to pick up at the end of that part, at the end of the part where the

grandfather is showing them around the farm.

[This information is organized and written on the board.]

Finally, they wound their way back to the house. In the living room, the great stone fireplace had been lit, and Suki, Ann and Klo stood warming themselves in front of it. Slow, slowly rotating as if on individual spits. They were hungry, and the food, when it came, was so delicious they almost couldn't recognize it. The bread, the milk, the eggs, the butter, the vegetables — every taste was fresh, distinct and intense.

"It's as if the food we usually eat is just a pale copy of this food," Suki remarked. "Compared to the milk we get at home, this is real milk! And these eggs taste like real eggs ought to taste — like real eggs!"

Her grandfather permitted himself a slight smile, although it threatened for a moment to fracture his face. Then he lit his pipe and relaxed. "Well, son, what do you think?" he asked, addressing Klo, "would you like to be a farmer some day?"

Klo's mouth was full of blueberry muffin, and his "I don't know," came out sounding like "ow-no."

[J. reads the rest of the chapter to the class, pages 57-60.]

Jonathan —[A good part of the children's responses were written on the board.]... Can you give some examples from this story about things changing and what they said about change, different views about change and things remaining the same... can you give some examples?

Girl —Wood turning to stone.

Jonathan —OK, right, again... my chalk, I think, turns into dust. OK, so what kinds of things turn into stone?

Child —Petrified.

Jonathan —You mean the wood?

Child —Yeah.

Jonathan —Wood turns to stone.

Child —... they were saying how the plants would turn into the, like the mush-junk and then it would turn back to plants.

Jonathan —...can anyone have an example like that — where one thing turns into another and then turns back the same way?

Child —Well, like... the cow eats the grass then the cow uses the bathroom and then you got, and then that ... it deterior-

ates and makes the ground rich and it grows back into corn.

Jonathan —Right, OK, so the vegetation, cow, vegetation. Another example might be the river runs into the sea, evaporation into the clouds, back into the sea again.

Child —Suki's grandmother said that nature's job is to change.

Jonathan —OK. Let's repeat what she said that nature's job is to change. And did she contrast that with anything? anything she wanted...

Child —That man's job is to change the world into poetry.

Jonathan —That man's job is to change the world into poetry. So what does that tell you about what she thinks about poetry, as opposed to, say, nature? nature's job. Does it play something different, poetry than nature's job? What do you want to say...

Jonathan —Are there other examples in the story, of change in the story, other things that change in the story?

Girl —Well, Suki's grandmother said that she couldn't stand the snapshots any more because she didn't really believe that things were [unintelligible] her.

Jonathan —OK, so the photographs no longer were her. Do you know what she said was her?

Child —Poems. The poems. The poems were her... Yeah. [answering child.]

Child —The barn changed into ashes when it burned.

Jonathan —Right, the barn... do you remember what caused the barn to turn into ashes?

Child —Fire.

Children —Fire.

Jonathan —Fire. OK, let's write that over here. [writes on board]. Was anything else said about that?

Child —Suki's grandfather said you can't trust wood, and that you could only trust stone...

Jonathan —Do you know why he said

that?

Child —Because of his barn that burned down.

Jonathan —OK, so somehow stone is more permanent, is that right? It would last longer... Do you think stone would last forever?

Child —No.

Children —No. [quiet jabbering]

Child —She also.... *He* also said that like the vegetation he wouldn't change his barn back into a barn, it's just ashes and he'll leave it there and if he ever builds another one...

Jonathan —What'll he do?

Child —[continuing]...he'll build it out of stone.

Jonathan —So it'll last longer?

Child —Yeah.

Jonathan —Even that one lasted longer.

Child —How he said it just went down to ashes, first it was a barn, but it won't change back into a barn.

Jonathan —Right, so in that way it's not like the vegetation any more.

Child —He also said that ... said he'd build anything out of stone that it will last forever.

Jonathan —Yes, and I just asked you do you think it will last forever?

Children —No... No.

Jonathan —Not, that too [unintelligible]

Child —Well it will last longer than wood.

Jonathan —It would last a lot longer than wood, right? That's why he'd do it, but it wouldn't last forever. Do you remember anything ... any other remarks — interesting about change that anybody says or anybody mentions in the story?

Child —Well, she was talking about the shell and the coral and stuff.

Jonathan —Oh, good... right... coral or the seashell and what are they made from?

Child —Stone?

Jonathan —What is it?

Child —[again] Stone?

* * *

Jonathan —Now I have something to ask

- you about, what about cars... do you think cars change?
- Children** —[various “Yes” es]
- Child** —Well, when you first get a car you may have it for twelve years or longer, and then after you take it to the junk yard and they compact it, they melt it down and make a new car from it.
- Jonathan** —Oh, so would you say the car changed or not?
- Child** —Yeah.
- Jonathan** —It’s a new car.
- Child** —It’s a new car.
- Jonathan** —Out of the same materials.
- Children** —Well, at least... Unhun...
- Jonathan** —Almost the same materials. OK, what about... you know... the story... The Prince and the Pauper?
- Children** —Yeah.
- Jonathan** —You know they altered their clothing and their positions, do you think that fundamentally changed them?
- Children** —Yeah.
- Child** —Because the prince changed and found out what the people who were in bad shape really had to go through, what was really happening outside of the castle because usually inside the castle the king and the queen and all the royal family were usually characters and when they did go out they were seen and when they did go out they were glad that they were not in bad shape. [unintelligible]
- Jonathan** —OK, So you are saying when they change positions and changed clothing, they learn so much more about things they haven’t seen before, is that right?
- Child** —I think that’s right. [unintelligible]
- Jonathan** —They probably had a good time.
- Children** —[Laughing] Yeah.
- Jonathan** —Well, do you think or would you say that afterwards they were different people?
- Children** —Yeah... Yea.
- Child** —Because they know how each other live now and they know what they have to go through and so they might change it because they found out what the other people expect from them.
- * * *
- Jonathan** —When, (I think it is) the grandmother... says, “Suki’s grandmother spoke with a flash of fire in her eyes, what will be will be, don’t confuse our job with nature’s. Nature’s job is change forever turning one thing into another never knowing or asking why. But, our job is turning the world into poetry.” What do you think? Do you think she would agree with this about poetry or poems or do you think she would say something else?
- Child** —I think she was kind of thinking, you know... when you got poetry... um,...poetry stays the same... you know, the same words but you may have different feeling about it, but the words stay the same... but people’s feelings about it may change,... but the world will be ... you know... will change, the poetry on paper is like a record and you know... won’t be recorded in nature.
- Jonathan** —I see. I just want to say something about that, yeah... let’s hear from someone different.
- Child** —Poems depend on what the poets write, usually the poet writes his feelings and if you read two or three different poems on the same subject they may have a lot of different contents the others do because they write according to how they feel.
- Jonathan** —And once they record those feelings into the poem that ... they felt last week... and those feelings may change.
- Child** —They change because it depends on who reading them and how they see a poem in their mind... how it relates to them.
- * * *
- Jonathan** —Let me ask you this... let’s say, you have a river, do rivers change... do rivers alternate course?
- Children** —Yes, Yeah... sometimes.
- Jonathan** —OK, so rivers change. OK, now let’s say I have this river, OK? and I add a bucket of water to it that I take from some spring and I add it to the big river... and I add this bucket of water. Do you think I changed the river?
- Children** —NO.
- Jonathan** —Do you think that same bucket of water, though if I did something else with it, it could change something else much more than the river?
- Child** —Yes.
- Jonathan** —Like what? can you give me an example?
- Child** —OK. If you maybe like... had on a beach... a sand castle and took the water and poured it...
- Children** —It dissolves... it disappears fast.
- Jonathan** —Right.
- Child** —If you had... like just a little plastic swimming pool ... you could change it by... if you took a bucket of water... you could fill it up.
- Jonathan** —OK. It didn’t do much to the river, but now you have a place to swim in.
- Child** —Like if you had a bucket... and you threw it up... the sides, you could wash the bank away.
- Jonathan** —mmmhmmm... right...
- Children** —[another] Like if you had an empty box or something... if you put the bucket of water in it, it would change it. Because then it would be a whole box.
- Jonathan** —... if you were thirsty, it would certainly make a difference to you.
- Child** —You could change a seed into a plant and make it grow...
- Jonathan** —Right.
- Child** —That’s a good one.
- Jonathan** —So you take a bucket of

- water and use it to water the plant.
- Child —You could take a balloon and let it go, and that'll change it.
- Jonathan —I don't understand.
- Child —Well, look... you take the balloon and just let it go and the air... all the air...-will go out of it. That would be a change.
- * * *
- Jonathan —[answering child] Yeah...?
- Child —You could change a car by taking a bucket of water and throwing it on there and it would wash it.
- Jonathan —It would clean it, right?
- Child —It would clean it, from a dirty car to a clean car.
- Child —[another] If you took a bucket of water... and you took it to fill it up from the lake or something, that would be one less bucket of water in the lake. Because that would take water out of it.
- Jonathan —Right. Now can you think of a circumstance where it would make a big difference in the lake?
- Child —That wouldn't make a very big difference... especially if it were a small bucket...
- Jonathan —A small bucket and a big lake... All right...
- Child —You could change a much, much smaller river with the same bucket of water, if there was a stream... a little tiny river, like about that... that big... if you put a bucket of water on it, it would probably flood it...
- Jonathan —Right. Let's take another example: Let's say I take one brick away from a house. Does that change it much?
- Child —The house might fall down.
- Children —[gleeful, laughter] Yea, he he he.
- Child —Well, if there was an earthquake in the house...
- Jonathan —Let's add to that. If I took the brick from the top. If I took it from the bottom, the whole thing might cave in. Let's say I took the brick from the top.
- Child —You'd have a hole.
- Jonathan —Can you think of a case where taking just one brick away would make an enormous difference?
- Child —If you had a house on a cliff or it was on stilts, it would need bricks for support.
- Child —If it was winter you'd get quite cold.
- Child —It depends on what type of brick. If it was a great big brick, it would leave an enormous hole.
- Jonathan —Right, so I haven't told you what kind of brick I have.
- [break in flow of conversation]
- Child —If you have a real pretty house, where every brick shows... and you take one from the top and it shows... and you look like a real... you look like someone who couldn't afford to spend enough time to put the brick in.
- [laughter]
- Jonathan —Right, so, It might make a difference in the beauty of it, the design of it... is that what you're saying?
- Child —If you took the brick out of the house... [unintelligible]
- Jonathan —Do you think, let me ask you... do you think that's important about painting? For example, Let's say... remember the painting, there was a painting you talked about yesterday, a couple of paintings, so you remember some of them?
- Child —St. Francis?
- Jonathan —St. Francis. Do you remember any others?
- [children all join in naming another painting]
- Children —Titus.
- Jonathan —Ok, if I cut my finger nail, would that make much difference to me? Would that change me?
- Child —Not if you...
- Child —Depends on how big you cut it.
- [laughter]
- Jonathan —Depends on how big you cut... he he.
- Child —Well, you know... you can cut it without getting through the finer nail and then you got a scratch in your finger nail, and you've got just a very slight change in appearance. But if you cut down through, your fingers bleed.
- Jonathan —But if I just clipped a little bit very carefully... and I... what if ...if I looked at Rembrandt's painting of his son, Titus, and I said, you know.. I don't like that finger nail. And I just sort of erased it. Do you think it would make a large difference to that painting?
- Child —You'll get put in jail.
- Child —It could make quite a bit of difference. Everybody would get quite mad at you. They'd throw you out of the museum and make you draw in the fingernail again.
- Jonathan —Why do you think they'd do that? Why do you think it would make such a big difference?
- Child —Well, he painted his son and he painted it the way he thought it was, and if you take things away from his son, I don't think it would be the same as it was.
- Child —But painting his son made him express his feelings about how much he liked him... and taking the finger nail away... that may have been why he painted the finger nail that way... maybe that's the way he liked it or something. Maybe that showed his special feeling.
- Jonathan —So what would I be doing if I took it away?
- Child —You'd be taking his feeling away.
- Child —One thing you'd be breaking the law... the second thing, Rembrandt's son would have this big white blank at the end of his finger!
- [laughter]
- Child —It wouldn't look so pretty.
- Child —I'm going to go on about

- what he said. If you had a big white thing around his finger... then it won't show up at all and it would almost ruin the picture. Because you look at this really pretty picture.. and there's just a blob...
- Jonathan —So the little difference in the picture makes a large difference?
- Child —Yeah. I was just going to add on to that, one little difference in anything completely changes it.
- Jonathan —In anything?
- Child —Well, almost.
- [laughter]
- Jonathan —Well, do you think just clipping your hair or something like that, does that change you enormously?
- Child —Yeah, it would look horribly different.
- Child —Depends on where you do it... I mean... if you cut that he'd look a whole bit better.
- [lots of laughter]
- Jonathan —Well, do you all agree with that? Do you think changing, cutting your hair... and changing the hair style.. on let's say, Titus... do you think that's also [unintelligible]
- Child —Well back then they might have hair down to their shoulders but now if you put an afro permanent on them, it wouldn't look good.
- Jonathan —It wouldn't look so good. It wouldn't look quite as realistic, either.
- Child —No.
- Jonathan —I see. Yeah...
- Child —If you gave him a... butch... that's what it's called when you cut their hair really short... that would make him look much, much different.
- Jonathan —Would it have as much effect if I did it to Tom?
- [laughter]
- Jonathan —Well, maybe we'll test that out later.
- Child —If you were like to shave your beard...
- Jonathan —I was thinking of doing that,
- I'm glad you mentioned that...
- Child —Shave your beard and mustache and get contact lenses...
- [laughter]
- Jonathan —Do you think it would be a change for the better or the worse?
- Child —I don't know.
- Jonathan —I was thinking of doing that. I was actually thinking of coming this morning without my beard and all that... and asking you if you thought I was the same or different than I was yesterday. What would you have said?
- Child —Different.
- Children —Different.
- Child —The same.
- Child —You might look completely different.
- Jonathan —I might look completely different...
- Child —I might not know who you are.
- Jonathan —Right, so you haven't met me before, you just saw me with this beard...
- Child —[unintelligible]
- Jonathan —That's right, somebody might be imitating me. But would you say... You'd say I'm different if I would have shaved off my beard, right? But would you say I'm the same person?
- Child —I think you'd be the same person... it's just that you'd look different.
- Jonathan —I'd be the same person, but I'd look different.
- Child —You'd have the same feelings and you'd think the same way... it's just that you'd look a little different.
- Jonathan —Now what you said before... let's go back a little bit... what you said before about the prince and the pauper... a number of you said the prince and the pauper change when they change clothes, right?
- Child —Yes.
- Jonathan —And now the suggestion is that if I shaved off my beard,
- I'd look different but I'd still be basically the same person. Now going back to the prince and the pauper.. did you mean... did you want to say that they appear differently or they sort of change in certain ways and they're basically the same person, but you want to say they're no longer the same person also. Yes?
- Child —They changed their positions. They change their positions but they don't really change their personality. They look identical but they... but they didn't really change what kind of person they are.
- Jonathan —I see, so their personalities still are... still you think, basically the same... Yes?
- Child —Well like...umm... you're going to be... like if you shaved your beard and everything... you'd still be doing the same thing, but like if the prince and the pauper change places, they'd be doing different things. And so it would... really change you because just you'd be doing what you regularly do. But they would be trying something different that might change them...
- Jonathan —Now, you'd said something before... that they had changed roles.
- Child —Yeah, that would probably change the whole basic person because of the one kept inside of the castle, away from the supposedly real [unintelligible] he'd probably think everything was OK and... when he got outside of the castle, it was totally different.
- Jonathan —OK, yeah, go ahead...
- Child —Well, you compared to the prince and the pauper... is a little bit different. You're not going to live a different life style like the pauper, maybe. He might come back and he might... I don't think

he would change his opinions very much, but the prince would see what it'd be like and he might feel sorry for them and try to change things. And if you just shave off your beard... you're not going to live a different life style like the prince and the pauper.

- Jonathan** —Can you imagine some circumstances in which if I did shave off my beard I would live a different life style and it would really change for me? Any circumstances in which shaving off my beard would make all the difference in the world?
- Child** —Well, when you shave off your beard... unless you want to grow it back... you'll have to shave every day, which would change.
- Child** —That would change your life style.
- Jonathan** —That would certainly change my life style. Yes?
- Child** —In winter you wouldn't get frost on it. If you shaved it off.
- Jonathan** —That's right. Now I do get frost.
- Child** —Imagine getting frost just on your chin, when you don't have a beard.
- Jonathan** —Well, It also keeps me warmer, though... the beard.
- Child** —Yea, it keeps you warmer.
- Child** —Well, what basically I said was you as a person wouldn't change, your life style or how you may live would. But, you'd still have the same personality.
- Child** —Well, what if you were making TV shows about... some TV show and you had to have a beard to be in the TV show... because the guy you're playing had a beard... so if you shaved your beard you wouldn't be able to make that TV show any more.
- Jonathan** —Right. So then it would make an enormous difference in shaving my beard.

So if I shaved it today, it wouldn't make too much of a difference, I'd be the same basic person. If I was going to be on TV and the only way I was going to get on TV was with my beard... and I was going to shave it off... well, then, I would lose my big job, and that would be very significant. Yea...

- Child** —Moving on to Garis, If there are two people, one is going to be on a TV show, and he has a moustache. The other guy knows him. Now, he shaves off his moustache, actually he rips it off because he doesn't have time right before he gets on the TV show. Then his friend watches it and he doesn't recognize him and he doesn't know what character he's going to be... he just doesn't recognize him at all... he doesn't know him at all... he doesn't know him at all until he comes back and he tells him "I'm your friend."
- Jonathan** —Oh, so if you didn't recognize me it still wouldn't effect the [unintelligible] but if I shaved my beard and nobody recognized me, then I'd be...
- Child** —Then you'd be in trouble.
- Jonathan** —Then I'd be... well... I might not be... I might have been in trouble beforehand and now I'd be getting out of trouble.
- [general laughter]
- Child** —Maybe your boss wouldn't recognize you... he'd think that you'd kidnapped yourself.
- Child** —Yeah... you might get in trouble for not being at work, and you also might get in trouble for being at work when you're not supposed to be at work.
- Jonathan** —For kidnapping myself
- Child** —He might have thought that you'd kidnapped yourself because you're wearing your clothes...

- Jonathan** —I see. Then I could ask for ransom.
- [laughter]
- Jonathan** —What if nobody would pay, what would I do then?
- Child** —If nobody knew you... you'd probably have to go around with a sign saying your name and saying, "Please believe me, I'm really me."
- Jonathan** —Let me... OK, go ahead...
* * *
- Jonathan** —Do you think that has to do with anything... Suki... I think it's Suki's grandmother who said:
- "It's funny, though, I have a whole photo album full of snapshots but I can't stand to look at them, and when I see them I shake my head and say, 'That's not me.' But I still go over the poetry, I read it and reread it. It's just as fresh as when I first wrote it. And I say to myself, 'If I'm anywhere, it's here in these words'."
- Jonathan** —Do you think that's related to what we said before?
- Children** —It could be.
- Child** —Well, when she looked at herself in the picture she might have been the editor or her appearance might change. But when she writes poetry, that's the way she feels and her appearance wouldn't change.
- Child** —When she looked at the photograph she knew that she was different but when she read the poem, she felt like she was still good and she still had a feeling.
* * *
- Child** —Well, you know she might look at the pictures and think of the things she used to do like run... or swim or something like that... that she can't do anymore. And just looking at them might make her feel bad. But when she reads her poetry, she might feel the same way inside and might give her a good feeling.
- Child** —I think what it said... in the story... was that she basically kept the same feeling... but when she looked at the pictures she had changed physically but her poems

were how she felt... and in the story it said that she felt the same, but she didn't look the same... like the pictures.

Child —The pictures are of her physical self and the poems are of her mental self. So the poems are just of her feelings and the pictures are just of her looks. Like she might have been...

Jonathan —Do you think one is more her than the other?

Child —What?

Jonathan —I asked you, which one is really or which one is more her?

Child —The mental one.

Jonathan —OK. The mental one.

Child —Like she might have been really beautiful when she was in high school... but now she might be old and fat and have glasses and a hearing aid.

Jonathan —Do you all agree, do you think the mental self is more important than the physical one?

Children —Yes.

Jonathan —Ok. Well.. look... I have to stop, but let me just ask you, why don't you think about this: What if Lois Lane and Superman... OK? ... and you took Superman's mental self and put it in Lois Lane's body, and took Lois Lane's mental self and put it in Superman's body... do you think... well... you can think about the question — who would be who.. OK?

Child —It would be rather strange.

* * *

Jonathan —You know, I really thank you very much... I really have to stop because there's something else here to do. Ron's going to talk to you and he's got something with him, and I think we want some drinks, we'll get some drinks?

Child —Well, we better.

Jonathan —Well... get something... so thanks a lot.

[clapping]

The above transcript has been shortened, to save space. Some of the dialogue was hard to discern in the tapes, and there is also the problem that during the class I was using the blackboard: the diagrams and other material on it are not recorded.

I learned a great deal from the hour. I made at least three errors, the most serious being that I often reinterpreted the children's answers in terms of my own antecedent distinctions. This is particularly unfortunate since at a number of points, it was clear to me that the children were not making the mistakes for which those distinctions are helpful correctives. Second, and connected with the first error, is that I occasionally introduced technical terms which were unnecessary and unfamiliar. Both these errors occur in the opening part (e.g., "content"). Third, and I expect, least serious, is that often I let the discussion run too freely, which led to digressions. Since the main point is to get the children to take an active part in, and to enjoy, philosophical inquiry, I take it as better to err on the side of risk.

I am probably reading in too much, but what struck me during the class was the range of subtle and crucial philosophical distinctions the children came up with. Thus, in a number of cases such as the initial one with the poem, they find the question — of whether it is different after something is done to it (e.g., pizza) — to rest on too vague or ambiguous use of "different" or "change". When I re-order the pizza it is somewhat changed, but it is somehow basically the same. This seems to me, together with later discussion, to show the rudiments of the distinction between qualitative and quantitative identity. More importantly, it does not take my way of phrasing the question for granted. Typically, one easily leads a class to paradox by getting them both to say that X changes and is the same after a certain process occurs. But the children avoid those initial paradoxes by their responses, and examples, which require me to say,

"Same for what purpose?" or, in Geach's analysis, "The same *what*?" Analogously, a change such as the removal of water can effect a large change or not depending upon the object affected. Moreover, even for the same object (e.g., me), the very same change (e.g., taking off my glasses or shaving my beard) may have hardly any effect or a profound effect (e.g., if I was trying to avoid detection.) This insistence on revitalizing certain questions to specific contexts seems to me important both as a challenge to the setting up by an authority of too simplistic a situation and, in a number of cases, a major step in philosophical progress. Notice also, a theme that I did not pursue, the way they took it that virtually any alteration in a work of art or poetry would effect an enormous change in the work.

Especially surprising was the children's response to the Prince and the Pauper question. I am used to the response that they are the "same" after the switch. But in their new roles they see a whole new life and meet people that they would never have seen before. This will radically alter the kind of persons they are. This sense of personal identity, as most determined by one's personality, continued in a number of other examples. I threw a wrench into the works toward the end when I asked them to imagine Superman and Lois Lane switching brains. Who would then be whom? Isn't Superman's body very important for his personal identity? The children went wild with this example and kept discussing it past the hour, despite my reminders that time was up.

My aim was obviously not to settle the problems connected with identity, but to see how this sixth grade class would take to it, and to leave them with questions that they enjoy exploring further. On the first aim I was overwhelmingly impressed. Most of the class participated. (Therefore, when I say that the children held a certain view, I usually mean that this was the dominant view, but there was disagreement). Moreover the ease with which they generated examples, counterexamples, and abstract explanatory accounts (e.g., the appeal to personality, rather than appearance to explain personal identity), tempts one to posit the idea of them as natural philosophers. Which naturally leads to the question of what happens to them when they grow up?



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