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Editor's Note: In Volume 8, No. 3, in the article by Josep Cullell, pages 21 and 22 were inadvertently transposed. We regret any inconvenience this may have caused.

THINKING IN STORIES

By Gareth Matthews

Kindergeschichten, by Peter Bichsel, Darmstadt: Luchterhand, 1987.

The first story in this delightful collection of provocatively whimsical children's stories is called "The Earth is Round." It is about a man who, being no longer married and having no children, spent his time thinking over everything he knew.

The man made a list of everything he knew. What he knew, we are told, is just what *we* know.

The man knew that you have to brush your teeth. He knew that bulls run after red handkerchiefs and that there are bullfighters in Spain.

The man knew that the moon revolves around the earth and that the moon has a face and that the face is not eyes and a nose, but craters and mountains.

The man knew that letters need stamps, that you drive on the right side of the road, that pedestrians have to use crosswalks, and that you shouldn't torment animals. He knew that you greet people by shaking hands and by taking your hat off your head.

The man knew that there is sand in the Sahara Desert. He had never been there, but he had read about it. And he knew that Columbus, because he believed the earth is round, had discovered America.

The earth is round. The man knew that. If you know that the earth is a ball, you know that, if you keep going in the same direction, you'll come back to the place from which you started.

Of course, the earth doesn't look like a ball. Sometimes houses and trees get in the way, even when you get an unobstructed view, by the sea, you still can't see the curvature of the earth. Everything just comes to an end on a line—the horizon.

In the morning the sun seems to rise

out of the sea; in the evening it seems to sink into the sea. We know that it doesn't really, and that what we see is only the earth rotating, making one complete rotation every day.

Everybody knows that. And the man knew it, too. He knew that, if you keep going in the same direction, after days, weeks, months, and years, you'd come back to the same place, from the other side.

"I know that," the man said, "but I don't believe it, so I'll try it out." And, since he didn't have anything else to do, he did. But right away he ran up against another house. He needed a ladder, to climb over the house, so that he could keep going in the very same direction.

The man started thinking of all the equipment he would need to complete this journey—to climb trees and mountains, to go through rain and snow, to sail across the sea. Maybe he could put it all in a truck, he thought. But then he'd have to put the truck in a ship; and then he'd have to put the ship in a bigger truck. He would need a crane to lift all this equipment over houses. There was no end to what he would need.

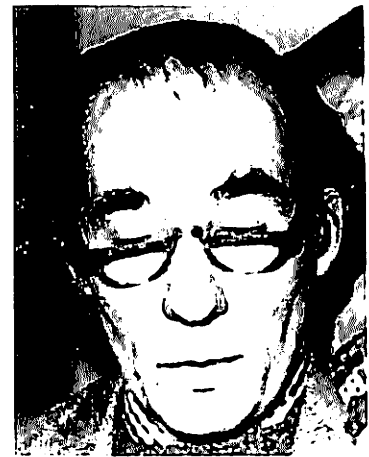
By the time the man was ready to begin his trip, he was already 80 years old. He decided to set out as quickly as he could, so that he could get back before he died.

That was ten years ago. The man is not back yet.

* * *

"If you keep going in the same direction, you'll come back to the place from which you started." In a way, that's a prediction; in a way, it's not. Addressed to a super-conscientious 80-year-old, it's certainly not a very *good* prediction.

When I was a small child, a friend and



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I decided to dig a deep hole and build a swimming pool. Curious passersby warned us, "If you keep digging, you'll come out in China."

There are many ways to complete the sentence, "If you keep on digging..." so that the result will be a true sentence. A good candidate is, "you'll get exhausted." But "you'll come out in China" is a very poor candidate, as a little knowledge of the earth's insides should help make clear.

"Don't be silly," I can hear someone protest. That's just a way of saying that China is on the other side of the world from where you were.

The suggestion is interesting (though it doesn't really rescue truth, since some place in the Indian Ocean is what is really on the other side of where I was digging as a child). But can the suggestion be right? One would have thought that China's being on the other side of the world would be the *explanation* of why one came out there, rather than its meaning.

Many clichés of our culture are highly problematic, if not downright false. (To the two we have been discussing we could add, "You can't be in two places at once," and "Everything that goes up must come down.") We adults, whether we function as parents or teachers, seldom have much patience with a child who, like Descartes, asks whether what everybody "knows" is really so, and, if so, how we know. That's too bad, as this story may convince us.

Peter Bichsel's whimsical treatment of "what everybody knows" demonstrates what many of us had long suspected—that epistemology can be fun.

David Kennedy teaches at Northern Michigan University, Marquette, Michigan.

Fools, Young Children and Philosophy

David Kennedy

*The wanderer no sense does make
His eyes being tied in true love's know...*

—Robin Williamson¹

Children do not belong to the same epoch, to the same race, to the same continent, as grown-ups. Armed through all their senses with the strong powers of divination, they hold converse with the whole universe in a mystic language which they forget soon enough, and they live in virgin lands.

—Pierre Drieu la Rochelle²

The fool is both an historical and a timeless, archetypal figure in the West. The fool plays a key role in our understanding of who we are in the world and what we know about it. Kings used to keep fools, not only for amusement, but also to remind themselves that they were not gods. King Lear's fool, for example, is the least honored among all his servants, yet the only one who speaks the whole truth; and Lear's fool's truth is so complex and so incompatible with established, totalistic meanings, that it emerges as riddle and nonsense.

There used to be a male society of fools, known as Contraries, among the Cheyenne Indians. The contrary always stepped backwards into the tepee, asked for food by announcing that he was not at all hungry, and refused it as he took it. So the fool turns things sideways or on their head, and demonstrates what is being carefully avoided by the rest of us. Hence the fool is sacred, in the existential sense of *mana*—³ he reveals the secret language of the world by babbling and playing. It can be revealed in no other way. His knowledge is both necessary and

forbidden—an uninvited guest—a voice within us. Lear's fool was part of himself, and the one among all his retainers whom he ended up most resembling. They finished by speaking the same secret language.

The secret language of the world which the fool speaks is the language of paradise—the language of the world before its separation and confusion and stereotypification: before moralizing self-interest and politics and obsessive sex and murder. Because it is an ahistorical world, prior logically and phenomenologically, but not historically or even prehistorically, it and its language are paradoxical and transcendental. The fool speaks the “prelapsarian tongue,”⁴ but it is enigmatic, garbled and unpersuasive. It has no advice for politicians or military men, or even for programmers of utopias. By reason of our own self-alienation, we do not understand his speech. Nevertheless, we fear his voice, and are aware that it hides within us and within events. The fool's riddles raise fundamental questions, questions which seem meaningless to the world of action

in which we are caught up, yet which are the very basis for any meaning in the world of action, and therefore come as disquieting reminders of how far removed we are, typically, from our own real sources.

The fool's power is his singlemindedness, and this is also his limitation. Because he is so completely given over to his persona, his becomes an impersonal voice; he wears the universal, prophetic mask of the clown, and as such has no individuality. This makes him both bestial and heavenly—like an angel, a messenger of another world which is prior to this one but into which this world cannot be translated, or vice versa. He is a creature of Eden wandering outside the garden, with scrambled, heavenly speech, a being between two worlds.⁵ Like an animal, he is amoral, not only because he is an androgyne, or because he is so marginalized that he has nothing to win or lose through either morality or immorality, but because the truth which he voices is beyond good and evil. He expresses the deepest things about the world as a cipher, one who is seized and obliterated by the message he brings.

We find the fool in various roles throughout literature and in ritual, ceremony and the history of the crowd. The range of expression of the fool in culture has innumerable manifestations and ramifications. The fool can be both holy and scurrilous—both manifest as the sacred. As the figure of what we, who make ourselves over through culture, have left out and which haunts us, we find the fool pope enthroned in the cathedral during Winter saturnalia,

blathering obscenities; or wandering eremitic in a wilderness which accepts and protects him as a brother. The determining force of this figure in Western identity is perhaps most fully and definitively expressed in the figure of Christ. Jesus, the anointed one, is a being between two worlds, who brings a truth impossible but necessary, incomprehensible because it is so simple. He wanders the earth, radically homeless, yet at home everywhere. He “blasphemes” in the Jewish temple, turning the wisdom of the religious on its head, placing the last first, and the first last. Like the fool, the most holy is taken for a seditious madman, and hung between earth and sky.

It is probably of more than coincidental interest that Jesus, whose life was a major summation for the West of the theme of the fool, was the first to actively legitimate the form of life of the young child (*paidion*) as well. He did this in two ways. First, the very narrative shock of God appearing in creation as a frail infant, in need of parental protection from the power of an evil king, brought the world of the child in a new way before the eyes of an adult world in which child-abandonment and infanticide were routine. In this story the ancient motif of a figure with compelling resemblances to the fool—the divine child—was put at the very heart of Western mythological consciousness.

The divine child, encountered in myth and folktale, from the *Mabinogion* to the *Kalevala*, and from Grimms’ *Tales* to African folklore, is a being of paradox. As Jung and Kerenyi have summed him up, he is vulnerable yet indestructible, preconscious yet knowing all things, “an initial and a terminal creature”⁶ Insignificant, of obscure origin, without a history, yet primordial and whole, and only communicating through nonsense, “smaller than small and bigger than big”⁷—this child presents the same paradox to consciousness as the fool. Lear’s fool, for example, is the least significant of the king’s retainers, but he alone tells the truth. So Lear is reduced to his pitiable speech through suffering, and in this we sense a tragic wholeness, a deeper understanding. In coming in touch with the whole, Lear has himself become a fool and a child. As such, he becomes, in his vulner-

ability, like the divine child, somehow invulnerable, ahistorical, huge in his insignificance, like nature speaking. He has come into a “second childhood.”

The second way in which the universal proliferation of the Christian gospel in the West also worked to produce a new understanding of childhood is implicit in Jesus’ blessing of the children, and his admonition to his disciples to model their own understanding on that of “little children.” Again, this was a shock to a world for which the *puer senex*—the child of a wisdom far beyond his years—was all that was considered worthy of much notice in children. Jesus actually presented the child as an ideal kind of knower, someone more capable of apprehending spiritual reality than adults. He speaks to heaven: “I praise you Father, Lord of heaven and earth, because you have hidden these things from the wise and learned, and revealed them to infants” (Matthew 11:25). Then, as if to make it clear that he is doing more than making a rhetorical point, he later “called a little child and had him stand among them. And he said, ‘I tell you the truth, unless you change and become like little children, you will never enter the kingdom of heaven . . . See that you do not look down on one of these little ones . . .’” (Matthew 18:2). Finally, having brought his ragged band of healed cripples and outcasts into the very Temple itself, it is children who publically identify him as Messiah. Answering the outraged adults, he evokes the prophetic motif of child as knower which is present in their own sacred and immemorial tradition:

“Do you hear what these children are saying?” they asked him.

“Yes,” replied Jesus, “have you never read, ‘From the lips of children and infants you have ordained praise?’” (Matthew 21:14-16)

The Christian version of the ancient motif of the child as carrier of a wisdom inaccessible to adults acted as a leaven in Western consciousness, working its slow way into the mores. Its course is reflected in the development of Western art. In medieval times, truth is often portrayed as an infant, and the soul as “a tiny, naked infant issuing from the mouth of the dying”⁸ In Byzantine mother-child

icons, which assume and develop ancient, pre-Christian iconographic traditions,⁹ we see the beginning of a clear transformation of the primal dyad, in the course which the divine child is increasingly naturalized, while retaining his spiritual numinosity. The premier image of Byzantine iconography—the Enthroned Madonna—is paradigmatic of the *puer senex*: the Jesus seated on the throne of his mother’s God-bearing lap is a little adult, seated and clothed like an adult, with one hand extended in adult blessing. This and the other formal images of Byzantine iconography—the nursing madonna, the merciful madonna, in which the mother’s and the child’s heads are drawn together, the madonna with the playing child, and the madonna with the infant resting on one of her arms—find their way into the 13th century Siennese tradition, and on into the High Renaissance.¹⁰ In a gradual but steady progression, the *puer senex* is replaced by a child who slowly, by stages, turns toward his mother and loses his clothing, until by the High Renaissance, a sensuously naked child in amorous interaction with his mother-bride becomes the norm.

In the rich and complicated iconography of the Renaissance, the naked, playing child assumes enormous, if never fully articulated symbolic significance. We can say at least that the Christ child of the Renaissance painters comes to represent, in his nakedness without shame, and in the sexual intimacy of the mother and infant or toddler, what Leo Steinberg has described as “a world restored to admirable perfection, a natural order of divine institution and redeemed carnality.”¹¹ The nudity of the child is an index of the power and completeness of the Incarnation—it becomes the mark, not just of the iconographical motif of “nuda Veritas,”¹² but of “the mystery of humanation” of the divine.¹³ So the child, as the most sensuous and concrete, the most naked and defenseless, comes to embody the sexual glory of creation, and the polymorphous, non-genital sexuality of Eden—a union of Eros and Agape. This, in turn, is a founding image of the child for the modern world. The divine child is increasingly naturalized, until, by the sixteenth century, it is more accurate to speak of the figure as the natural child

supernaturalized.

This child, which Jung describes as an archetypal symbol of the emergent self, and harbinger of the restoration of self to an original unity through dialectical advance,¹⁴ finds modern expression in the child of the Romantics; and it is here that the divine child rejoins the fool. It is important to remember that Romanticism is a reaction against a kind of knowledge ideal in which separation is necessary for knowledge. So the child of the Romantics is emblematic of a kind of knowledge which is at least analogous to the lost *intellectus*—the unity of mind and will, or desire and mind—of Plato and the medievals.¹⁵ Coleridge called it “intuitive reason,” which he described as “that intuition of things which arises when we possess ourselves as one with the whole,” in contrast to “that which presents itself when . . . we think of ourselves as separated beings, and place nature in antithesis to the mind, as object to subject, thing to thought, death to life.”¹⁶ This kind of knowledge became increasingly useless in the modern 19th century West, a world of new machines and planned state educational systems, the future paradise of the adults. So the child becomes the fool of the modern world, and as such, comes to point up the same things about adults which the court jester pointed up about the king.

Like the fool for the king the modern child of the Romantics represents for the adult original human nature in all its ambiguity and ambivalence.¹⁷ The child's nature, like the fool's, is both fallen and innocent, amoral and beyond morality—and what is even more confusing, alternately one or the other. The child's unsocialized presence reveals and exposes the imperfections of the socialized world of adult artifice and hypocrisy. The child's very simplicity seems perverse by reason of the corruption of the adults who so judge him or her.¹⁸ The child is a question put to the adult world, a pretext for a radical re-evaluation of the question of what it means to be human. Like the fool's babble, the child's very being is presented to us as a riddle, an enigma. As Rheinhard Kuhn said in his book on the child figure in modern literature, “Children can be considered as incomplete beings who in their very lack of completion



possess gifts that are lost in the finished product . . . The child is the bearer of tremendously significant but undecipherable tidings.” Elsewhere he describes the child as “an emissary, even if we do not know from where or from whom.”¹⁹

The sense of this enigmatic mission has the same quality of impersonality, of someone caught up in the expression of a universal state—in this case childhood—as is the fool. Like the fool's, children's power is in their limitation, to the extent that they embody a *figure*, or type. The child inhabits a world apart—the universal world of childhood—like a sleepwalker:²⁰ “To a certain degree all children are autonomous universes; to some extent all of them speak their own language and seem to have a message to convey that they forget just as soon as they are old enough to transmit it.”²¹ So in the young child we have the figure of a “real-life Adam,” who speaks the language of paradise in a dream, whose involuntary perspective “defeats the gravity of adult life while at the same time raising grave questions about the network of venalities which pass for maturity . . .”²²

The child's play, like the fool's, is marginalized, dismissed by adults as “mere play.” But its very randomness is, like the babble of Lear's fool, a synchronicity: an inarticulate surplus of meaning which renders the whole world articulate, in that it expresses the ontological relation between meaning and being. The child is the whole speaking: incoherent language of a super-coherence, perhaps the only possible language of Coleridge's “intuitive reason.” This whole speaking is subversive to the world of adult order and purpose, in which meanings are strictly entrained by necessities, and we must “mean what we say and say what we mean.” Play accomplishes that slight displacement of reality which completely relativizes it, through framing it “as if.” In play, reality is destabilized. Like the fool, the child plays among the ruins with the same equanimity as in the palaces of kings.

As with the fool, play is the overarching paradigm of the young child's lived experience. Both the child and the fool are, respectively, unconscious and conscious masters of play—they represent

the world that way. It is a form of knowledge. Play, like art, is the language of the experiential whole: it is the ritual representation, possible in no other way, of immediate, intuited experience. For example, through the play of his nonsense, Lear's fool exactly expresses Lear's agony. Lear himself is ultimately reduced to this sort of language—to joke, riddle, and pun—which in turn comes to express in radical poignancy the utter immediacy to which he is reduced through suffering.

The fool and the young child are both natural specimens of Schiller's *Spieltrieb*, or play impulse. As such they represent what for the Romantics is the highest form of knowledge—what John Pizer characterizes as “genuine insight into lived experience as a non-fragmented, meaningful whole.”²³ This is possible because in the back and forth movement of play, in allowing themselves to *be played* by the world, they are eliminated as subjects. As such, they live the unity of knowledge and being. Gadamer describes this as “aesthetic non-differentiation,” and Lukac's description of the aesthetic form of the subject-object relationship describes the same thing.²⁴ Both the fool and the child reveal through their play the *mana*-quality of the world of immediate experience.

The child and the fool are also in the same relationship to authority. The child is the lowest of the low, marginalized, without a voice in the decisions of adults except as they condescend to hear him or her. At the same time, the child fulfills that same prophetic function as the fool—of a being which, because of its singleness, cannot be other than what it is, placed in an adult world in which the identities of people, things and even ideas have been forever smudged and diffused. As such, although children are subject to every indignity because of their size and their dependency, they have a higher authority. In spite of this natural authority and its importance to adults, children, like fools, madmen, and primitives, are marginalized. They are “peripheral figures” in a world which, paradoxically, they change radically by their very presence.²⁵

Finally, both the fool and the child are, in their own ways, doomed. The fool is doomed to permanent marginalization,

to the fate of the aboriginal truthsayer condemned to a world of half-truths and outright lies, whose tongue seems twisted only because his speech is too pure for the fallen minds of his hearers. His is a type of unity which will always appear as madness and triviality to a world which is fundamentally divided. He is kept by grownups as a permanent child, an acceptable form of madman. The child, on the other hand, is doomed to grow up. “Though their [children's] being is atemporal, they are subject to the vicissitudes of time.”²⁶ In growing into adult consciousness the child becomes an absence, a sacrifice to the world of grownups.

May we say of philosophy, or at least of the philosophical impulse, that it is an activity of the fool? It is at least what has been called “institutionalized naivete.” It insists on asking questions which common sense thinks it has already answered, and which therefore seem silly and unnecessary. It turns things on their head by looking at the background instead of the figure, and always asking why, and searching for a certainty which in the very act of inquiry undermines

and throws the possibility of certainty into doubt.

Philosophy is a way of deliberately coming to the end of established, totalistic meanings, to a place where ordinary language not so much breaks down as breaks open, revealing infinite corridors of reference and levels of reflection. Philosophy stops the world. As such, it is also something like theater, or the playworld of the child, in that it involves a transformation into another, extra-ordinary realm of meaning. In the event of philosophy, life and language take on a new, problematic relationship, and the aporias it invokes give intimations of an ungraspable whole. So to the extent that philosophy is a suspension, an activity which throws all of existence into question while evoking its most fundamental meanings, it is paradigmatic of fools and children.

But what about children *doing* rather than just *being* philosophy? I have already identified the epistemology of the child and the fool with aesthetic consciousness. If young children don't do philosophy, they create philosophy—they stop the



world—just by expressing themselves in play and art. It is a way of thinking for them. But it is not reflective thinking. It is expressive and symbolic thinking. And philosophy is typically characterized as reflective, *i.e.*, as thinking about thinking. On this definition, a non-reflective philosopher is a contradiction in terms. So when a child does philosophy as a reflective activity he or she is turning away from the prereflective subject-object fusion of aesthetic consciousness and its expressive symbolic representations, and towards a critical, verbal and logically sequential form of representation which is paradigmatically “adult.” That even the young child can, with the help of adults, do real philosophy, is increasingly clear. Not only is it proven in actual transcripts of conversations;²⁷ it also has new theoretical legitimation in the increased attention given to what Vygotsky referred to as the zone of proximal development, which, briefly put, recognizes 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.”²⁸ But the fact that children are capable of doing philosophy does not indicate whether or not they should. In fact are we not, in asking children to do philosophy merely dragging them untimely into the adult world?

No, because, as has already been suggested, philosophy is subversive of the adult world. It asks too many questions. Like the fool’s babble, it is sometimes tolerated, sometimes even enjoyed, but never really taken seriously. Through doing philosophy with young children we are fulfilling what Coleridge described as the exemplary task of education, which is to “carry on the feelings of childhood into the powers of manhood.”²⁹ In learning the language and the moves of philosophy, we render, if only through a sort of displacement, the inarticulate discourse of the fool and the child into adult speech. Philosophy itself does not speak the “prelapsarian tongue,” but it is propedeutic to it, in that it has a way of breaking the frames of the adult common sense world, of casting that world into doubt, on the assumption that in so doing, some deeper or better knowledge of the world will emerge. And that bet-

ter, deeper knowledge is, at least in some part, the knowledge of the child and of the fool.

So we are presented with two directions: children who through philosophy will become adults committed to those “obstinate questionings of sense and outward things,” for which Wordsworth the adult blesses childhood; and adults who will, through philosophy, progressively recover the inarticulate speech of the whole—“those first affections, those shadowy recollections, which, be they what they may, are yet the fountain light of all our day, are yet a master light of all our seeing”³⁰—which also “breed perpetual benediction” in the poet. Is this not the extraordinary potential we sense in philosophy for children?

NOTES

1. From the song, “Maya,” on the album *Wee Tam*, by the Incredible String Band, Warner, 1968.
2. Quoted in Richard Coe, *When the Grass Was Taller: Autobiography and the Experience of Childhood* (New Haven: Yale University Press, 1984), p. 118.
3. One of the determining characteristics of the fool is androgyny, as will be taken up below. However, the fool has traditionally been identified as male in classical Western myth, story and tradition. This is not to claim that there has not been an identifiable tradition—whether counter, parallel, or complementary to the male tradition—of the female fool, but to explore that perspective would require, it seems to me, a whole other kind of study than is attempted here. This is also true of the figures of the *puer senex* and the divine child. Therefore, in those three cases I stick, when it is necessary to choose, with the male pronoun, and use both male and female pronouns when speaking of young children in general.
4. Robert Pattison, *The Child Figure in English Literature*, (Athens, GA: University of Georgia Prss, 1978), p. 29.
5. C.J. Jung and C. Kerényi, *Essays on a Science of Mythology: The Myth of the Divine Child and the Mysteries of Eleusis*, (Princeton, NJ: Princeton University Press, Bollingen Series, 1969), p. 50.
6. Jung and Kerényi, p. 97.
7. Pierre Erny, *Childhood and Cosmos*, (New York: New Perspectives Press, 1973), p. 83.
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Philosophy and Foolishness

James Heinegg

Pixie is a fool. While this might not normally be considered a kind thing to say about someone, I think that it is not necessarily derogatory. Pixie's foolishness, in fact, may be very important. In this paper, I will be discussing this aspect of Pixie in relation to philosophy. In parts I and II, I will be putting forth a tentative theory: The reasons we might have for calling Pixie a fool are the very same reasons we might have for calling her philosophical. Part III will be a discussion of a vital aspect of Pixie's foolishness: her humor.

Part I: Fools and Philosophy

What makes someone a fool? In one respect, fools are people who fail to live up to society's expectations in judgment and behavior. (So are criminals, of course, but it is not my intent here to give a complete definition of a fool.) What does society expect of us in this regard? In many ways, we are expected to live a life of moderation similar to that described by Aristotle in his *Nicomachean Ethics*. Correct moral behavior is a mean between two extremes—courage lies between rashness and cowardice, generosity between extravagance and stinginess. In contrast, fools are extreme in their behavior. It has been said of the Marx Brothers that, "To Aristotle's apothegm 'Moderation in all things,' the Marxes have an antidote: 'Go to pieces.'"¹

One way that Pixie is extreme is in her devotion to particular kinds of questions. For example, she is so fascinated with various questions about relationships (Chapter Five) that she neglects to prepare for school. It is just this sort of neglect of "worldly things" which made Socrates a fool. He was considered to

have been lacking in judgment because he spent his time walking around Athens talking with people when he could have been doing something more "productive." Of course, many of us would not want to call Socrates (or Pixie) a fool on

account of this devotion to philosophy, but they are considered so by society. (Miranda, for example, seems to think Pixie's philosophical investigations are foolish.)

What makes Pixie a fool also is her



failure to abide by social graces. While she is perhaps no more manipulative than most people, Pixie does not commit the typical deceit that goes along with the manipulation. Thus, she has a tantrum, or manipulates a friend, and so forth, but she is not at all inhibited about letting us know what she is thinking and doing. At the beginning of Chapter Four, she tells us: "Then Miranda kicked me. She kicked my shin, just under the knee. It didn't really hurt, but I screamed and cried and carried on anyhow. My mother turned around and yelled at Miranda. That made me feel better, but I kept on hollering just the same." While she is of course deceiving her family, she is being brutally honest with us, like a magician who reveals to his audience how the trick worked.

This is perhaps one of the reasons that people enjoy *Pixie*. Pixie performs a function similar to that of the clown/fools of the native North Americans. One of the main roles of the Heyhokas of the Sioux, for example, is to play-act the societal

taboos. Seeing these acted out is a way of releasing tension for the people—the clowns are doing exactly what the people either secretly do or secretly wish they could do. In the same way, Pixie is unmasking us as well as herself.

There is also a peculiar honesty in her philosophical musings. Wylie Sypher writes of Socrates: "Socrates is the great eiron of antiquity. He plays the fool, feigns ignorance, asks seemingly innocent and childlike questions that are meant to trap you."² Pixie, however, usually does not have to feign anything. She truly believes that her feet have changed places. She truly believes that if her head falls asleep, she might think it is Miranda's inasmuch as she thought her foot was Miranda's when *it* fell asleep.

If this is so, then there is an important difference between the sort of philosophy that Pixie is doing and the sort of philosophy that goes on in the academic community. When we ask ourselves about trading minds or bodies, or engage in similar philosophical conjecture, we

have to try to do something which Pixie does naturally. We are, moreover, not really going to be able to convince ourselves to believe as thoroughly as Pixie believes, that we can change feet. It is perhaps in this sense that Pixie more closely approaches the sort of empirical method of philosophy which Dewey suggests in *Experience and Nature*. Philosophical problems for Pixie are true problems. Those same problems are sometimes pseudo-problems for us. In her foolishness, Pixie is a kind of natural philosopher.

Part II. Structuralist and Semiotic Analyses of Clowns and Fools

In "Clown Performances as Metacultural Texts," Paul Bouissac gives a semiotic analysis of clowns. Bouissac argues that in looking at clowns and fools, we often ignore the actual things that they do. But fools and clowns are, in fact, using a different kind of language by what they do, and to ignore their actions is to ignore what they are saying. "It is now widely accepted," he says, "that most of the patterned exchanges and interactions that characterize a culture can be analyzed as codes, or metaphorically speaking, as languages."³ Bouissac says that what clowns do is set up an opposition between cultural norms and cultural 'abnorms.' The distinction between the cultural norm and the 'anti-culture' is emphasized by the clown, instead of being played down, as it usually is.

In the aforementioned episode about the feet change, Pixie is making a statement about Western culture's idea of personal identity—we are our appearance. Things are exactly as they appear to be. Thus, Pixie is exaggerating the Western idea that people are their appearances, and yet, at the same time, making a statement that we would take as ludicrous, namely, that her feet had switched. At the end of the first section, I mentioned that this might suggest that Pixie is thus a "natural philosopher." But in this light, we see another possibility. Perhaps Pixie is not philosophizing at all. Maybe she is a fool, but not a philosopher. She is merely asking questions about those "pseudo-problems" of which we spoke. She has not yet fully learned that appearances are not reality.

This notion of opposites and dichotomies also comes up in Claude Levi-



Strauss's discussion of myth. Myth "works" by setting up opposites, and then mediating between them. For example, in the Oedipus myth, one opposition is between the "overrating of blood relations" (Oedipus marrying his mother, Antigone burying her brother despite severe prohibitions) and the underrating of blood relations" (Oedipus killing his father, Eteocles killing his brother).⁴ In many myths of the North American Indians, the "trickster" is the figure who mediates the opposites. The coyote, for example, often mediates between man and nature or the gods.

Pixie is in this sense playing the mediator role between the worlds of adulthood and childhood. As mentioned, Pixie already has learned many of the games adults play—manipulation, rationalization, and so forth. She is also learning somewhat more positive lessons about how language works, how to think more clearly, how the world works, etc. But despite these connections with the world of adults, Pixie is obviously still connected with childhood. Pixie is maturing, but not by jumping from one world to the other, nor even by gradually leaving one for the other. She is, instead, making connections between the two in the way which suggests Dewey's notion of education in *The Child and the Curriculum*. She brings a naiveté, honesty, and straightforwardness to the inquiry that is what we would typically describe as childlike.

Part III. Pixie as Comic

Enid Welsford, in *The Fool: His Social and Literary History*, writes, "Comedy is the expression of the spirit of the fool."⁵ What role do comedy and humor play in Pixie's philosophy? To answer this question, I would like to discuss one of the main theories of humor that philosophers have put forth, namely, the incongruity theory. My argument is that Pixie's exploration of incongruity in a humorous way is philosophically important for two reasons: (a) the shock of the incongruity causes us to "wake up," and (b) the use of incongruity for humor involves important work with concepts. For the purpose of the discussion, I will be concentrating on the theories of Kant and of Schopenhauer.

One of the earliest modern incongruity theorists was Immanuel Kant⁶ Kant explains humor as being a kind of playing with thought which, although amusing,

does not help our understanding (In fact, it frustrates our understanding.) We laugh when what we were expecting to happen does not, when the world surprises us. He compares laughter with music: they both "give lively gratification merely by their changes."⁷ Thus, we are lulled into believing that things happen a certain way, and when we are surprised by the opposite, we laugh. In this way, when Pixie surprises us (eg, with her assumption that there is a particular species of animal called the "mammal"), we are shocked out of our normal way of thinking.

This also brings up the question again of whether or not Pixie is doing philosophy. For Kant says that this playing with thought does not lead to understanding, and much of the time it does seem that Pixie is playing. The answer here may be in what Kant's notion of philosophy is. Pixie is involved in a variety of activities—playing, teasing, problem-solving, reasoning and sometimes a conglomeration of all these. It may be that only certain of these would qualify for Kant as adding to the understanding. But Pixie seems to approach things much more holistically. Pixie is a lover of wisdom, but recognizes (perhaps not consciously) that this love must be of many forms: discussions, jokes, dance, song, drama, and so forth.

Schopenhauer's theory takes a somewhat different approach than that of Kant. According to Schopenhauer, we laugh when we mistakenly apply a concept to an object which the concept does not really fit, but which for one reason or another might be thought to fit it. The degree to which the concept fits, and yet does not really fit determines how funny the whole situation will be. "The more correct the subsumption of such objects under a concept may be from one point of view, and the greater and more glaring their incongruity with it from another point of view, the greater is the ludicrous effect which is produced by this contrast."⁸ I think what Schopenhauer is saying is this: Humor is, in fact, a fairly complicated use of language, involving conceptual work that can be rather intricate (depending on how subtle the joke is.)

Consider the following little joke Pixie makes: "... I can make my ears wiggle, and he can't. (I don't mean, he can't make my ears wiggle, I mean, he can't make his own

ears wiggle!). This simple little remark involves a lot of difficult tasks. She has to first of all understand the logical ambiguity. She also has to understand the incongruity involved when we understand what she meant, but then she catches us by showing a second meaning which is possible. When a joke is made, or understood, we see how things do not always simply "fit" concepts or classifications. Pixie's humor is perhaps valuable for its own sake, but it may be that humor is also an excellent way for children to learn how to use language well, and the conceptual work that goes on may be very important philosophically.

Conclusions

Pixie (moreso, it seems to me, than Harry or Lisa or the others), embraces inquiry with joy and lightheartedness. Harry is diligent and serious (most of the time) about philosophy. I am not saying that either model is better, but it is important to note that in the novels our students may be seeing different messages as far as "what philosophy is all about." Those reading Pixie, I think, are presented much more strongly with the message that philosophy is fun.

The possible connections between philosophy and humor might need to be emphasized more. In what way is the comic or fool's vision close to the philosopher's vision? Perhaps we need to spend more time (the serious possibility of which Wittgenstein spoke) doing philosophy through jokes, the reading, writing and telling of them. The conceptual work involved, in fact, is appropriate as a foundation for logic work that is done in *Harry Stottlemeier's Discovery*.

Notes

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2. Sypher, Wylie. "The Meanings of Comedy," in Richard Corrigan's *Comedy: Meaning and Form*, New York, 1981, p. 38.
3. Bouissac, Paul. *Circus and Culture: A Semiotic Approach*. Bloomington, 1976, p. 5.
4. Levi-Strauss, Claude. *Structural Anthropology* II, New York, 1976, p. 198 ff.
5. Welsford, Enid. *The Fool: His Social and Literary History*, 1935.
6. Kant, Immanuel, *Critique of Judgment*.
7. Kant, Immanuel, in John Morreall's *The Philosophy of Laughter and Humor*, Albany, 1987, p. 46.
8. Schopenhauer, Arthur, in John Morreall's *The Philosophy of Laughter and Humor*, p. 52.

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Looking Backward at Education Reform

Willis D. Hawley

Shortly after the President's State of the Union address in 1993—in which he emphasized the importance of high-quality schools—a member of the White House staff proposed that a national conference be held on the 10th anniversary of the publication of *A Nation at Risk*. The purpose of this event would be to celebrate the successes of the education-reform movement and to give the President a platform from which to suggest priorities for future school improvements.

The President convened a number of his advisers who were knowledgeable about American education to discuss the possible agenda for such a conference. Portions of that meeting's transcript, obtained by this reporter, are reproduced below:

President: If we hold this conference, what changes over the last decade would we point to as evidence of the reform movement's success?

Adviser A: Over all, a lot of progress has been made. Students are taking more academic courses; we give more tests of student and teacher competence than any other nation; dropout-prevention and drug-abuse programs have been implemented; teachers' salaries have risen; and we are spending much more per student than we were 10 years ago.

President: That seems very impressive. I assume that we can cite improvements in student achievement resulting from these reforms.

Adviser B: Mr. President, the evidence on changes in achievement is inconclusive. Almost every state reports that its students now score

above the national average on standard achievement tests. But performance on other measures, including the National Assessment of Educational Progress and the Scholastic Aptitude Test, shows little change. And we still do poorly in international comparisons of student achievement.

President: Now, this doesn't make sense. How could we have adopted all these reforms and increased spending on education, yet not see big improvements in performance?

Adviser D: Experts give a number of reasons, but the one I find most telling is that both the number and proportion of children in our schools who are disadvantaged because of economic conditions, family instability, or poor health have been rising steadily.

The President: Let's not get off the track here. I didn't call this meeting to talk about health issues or social conditions. Why haven't the reforms and increased spending paid off in school improvement?

Adviser B: Maybe because school has not changed very much for children; that is, in most schools, students are still being taught as they were before all the reforms were enacted. And students are still taking the same kinds of tests, and these tests shape both the curriculum and the way teachers teach.

Adviser C: If I may, Mr. President, let me interrupt. Even if B is right, why is this important? Didn't schools serve those of us in this room well?

Adviser B: Mr. President, I will resist the temptation to respond to my col-

league's second query.

There is a growing consensus among those who do research on how children learn that we cannot significantly improve student's performance until educators, policymakers, and parents abandon the so-called "jug and mugs" theory of learning.

This view of education holds, in effect, that teachers are the jugs and students are the mugs—and you can take it from there.

The "jug and mugs" outlook underlies many of the weaknesses in educational practices and policies. For example, it explains why teachers talk so much of the time children spend in classrooms, why students expect to be passive when they learn, and why tests typically focus on the acquisition of knowledge rather than on the capacity to use it.

President: So, what's the alternative, and how would it change things?

Adviser B: Well, research has discredited the idea that learning consists of the transmission of knowledge to students by teachers, texts, or computers. Instead of being viewed as consumers of information and skills, students should be seen as producers of knowledge and learning capabilities. If the research about how children learn were as well known as it should be, reforms would aim at very different roles for teachers and administrators than are now typical, and at big changes in the curricula that most students experience.

President: O.K., I'm with you, but this all seems quite abstract. Give me some specific examples of the reforms we

should be pursuing in light of the research you talked about.

Adviser B: If students were thought of as producers of knowledge, teachers would be seen as managers of learning experiences. Their job would involve more than maintaining discipline, providing students with interesting material, and efficiently directing them to the right answer. It would mean putting students into situations where they could learn to use knowledge they already have, to relate that old knowledge to new in systematic and reflective ways, to organize seemingly unconnected pieces of information, and to assess their conclusions before settling on them—even if the conclusions were correct.

President: Hold on. Can we keep this discussion at sea level?

Adviser E: I also read the report to which B seems to be referring. Let me take a crack at summarizing the implications of what is now known about learning for the reform of teaching and curricula. If current research were applied in these areas, the so-called “basic” and “higher-order” skills would be dealt with simultaneously rather than sequentially. And we would recognize that higher-order skills are within the grasp of almost all children—at all ages.

Acquiring information would be treated as one means to achieve learning rather than as the goal of education. Problem solving would receive attention, but even more important, teachers would stress the development of problem-finding capabilities. They would also focus on helping students understand the strategies they use in the process of learning and problem solving. In this connection, opportunities to learn with and from others would be emphasized.

Because a good bit of learning occurs incidentally, what children study should, to as large a degree as possible, deal with problems and contexts that are familiar to them. Instead of trying to cover lots of different topics, curricula should go into depth on a limited number of issues and emphasize what is called “generative knowledge,” ideas and theories that help students organize and learn other

knowledge.

President: Earlier in this meeting—and it seems like a long time ago—someone said that this reasearch on learning has implications for the ways schools are administered. How so?

Adviser B: The primary job of administrators would be to support teachers in their efforts to be effective managers. Principals, for example, would focus on two sets of activities. First, they would minimize the distractions and obstacles teachers face in helping students learn. Second, they would encourage and reinforce the teachers’ own learning by modeling strategies teachers could use with students and by recognizing that successful teachers require continuing opportunities to develop their professional expertise.

Adviser F: I’d like to jump in here. The changes in schools that would occur if we made these kinds of reforms are important to the nation’s future economic growth and productivity.

President: We’re getting into deep water here. Please elaborate—but keep it short.

Adviser E: I’ll try. You will recall, Mr. President, that the authors of *A Nation at Risk* emphasized the importance of educational reform to the nation’s economic competitiveness. But they seem to have had little understanding of how technological changes and international economic trends would change what American workers would need to know and be able to do.

Some jobs are being simplified. Over all, however, the types of jobs that are now being created require different and higher levels of education and related skills than was the case 10 years ago. Such outcomes should include the abilities to identify, analyze, and apply appropriate information in responding to complex situations, and to learn on one’s own and with others. And productivity on the job and success in one’s personal life increasingly depend on the ability to deal with uncertainty, to work with others, to help set group goals, and to overcome racial and ethnic prejudice.

Unfortunately, the school-reform movement has emphasized the assessment of relatively narrow and low-level

skills. At the same time, the curriculum requirements imposed by the states typically have added more of the same types of courses we have always had rather than make changes reflecting economic and technological changes.

President: This is getting very depressing. It makes me want to turn to simpler matters—arms control, for instance. But let me summarize the messages I’ve heard in this meeting. The reform movement of the last 10 years has resulted in all kinds of new policies and increased spending on education. But there has been little change in student achievement.

During this time, the nature of jobs has been changing so that our workers will increasingly require abilities we have not been developing in our schools. On top of all this, you tell me that the proportion of children who are educationally disadvantaged has increased significantly.

How long have we known about these things?

Adviser E: For about four or five years.

President: Why didn’t someone address these issues at that time?

The transcript, and, presumably, the meeting, ended at this point. As this report goes to press, there has been no word from the White House about plans to celebrate the success of the education-reform movement.



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Logic in the International Elementary School

Christine Slade

Teacher: All ginks are skinks. All skinks are goobles. What follows? What has to be true?

Samir: What's a gink?

Teacher: Does it matter? Do we have to know? It doesn't mean anything, it could be whatever you choose. I'll say it again: All ginks are skinks. All skinks are goobles. Is there some middle term? In $3 < 7$; $7 < 9$, we have 7 in the middle, and we get $3 < 9$? What is the middle term in "All ginks are skinks, All skinks are goobles?"

Alexander: Skinks, skinks is the middle one.

Teacher: OK. Now what follows? If those two things are true, what else must be?

Simon: All ginks are—what was the last thing? (interjection 'goobles') Yes, all ginks are goobles.

Teacher: Yes, good. What if we didn't use names, just letters? If I say: All A's are B's All B's are C's If those are true, can you tell me another different one that is true as well?

Stanley: Easy. All A's are C's.

Teacher: Well can you give me an example of that sort of pattern: All A's are B's All B's are C's, so All A's are C's?

Alexander: All Lizards are reptiles. All reptiles are uumm (interjection: Animals). Yes, animals.

Teacher: Yes, well what follows, Meena?

Meena: All lizards are animals.

These children are using the basic argument form of Aristotelian syllogistic, known as Barbara, although they have no idea that they are doing so. Over a period of several weeks, they have considered whether sentences beginning with 'all' and 'no convert—

All lizards are reptiles is true,
but the converted form
All reptiles are lizards is not,
Whereas
No cows are reptiles does convert.

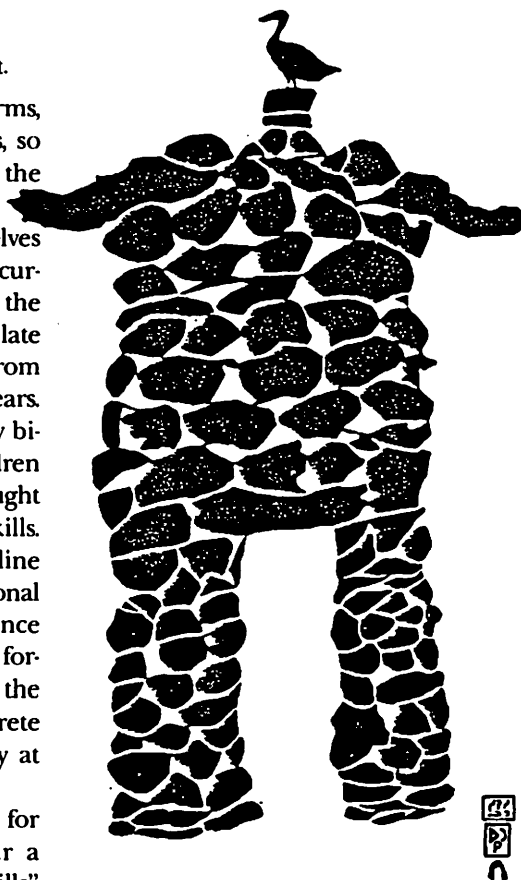
They have looked at argument forms, and used letters to represent classes, so as to give general conditions for the validity of arguments.

None of these skills are in themselves remarkable. But this conversation occurred in a second grade classroom, at the International School of Brussels, in late October, 1989. The group was aged from 6 years through to one child of 8 years. Over half the group was functionally bilingual. For a variety of reasons, children of this age group have rarely been taught abstract, or even concrete logical skills. They are, after all, still at the borderline between pre-operational and operational thought, in Piagetian terms, and hence in no position to be able to deal with formal abstract operations. Yet, when the ideas were introduced through concrete examples, the children were entirely at ease with argument forms.

I had been working with the group for roughly 10 weeks, for half an hour a week, teaching "Critical Thinking Skills," a course based on the Philosophy for Children Program. Only a part of the program had dealt with the specifically logical skills exhibited here. We had discussed what real things are—whether a toy bus is a real bus, a real toy a real thing, and whether rainbows are real; we had discussed friendship and secrets and whether a person's thoughts and memories are theirs in the same way that their legs are.

The introduction of a logical component in a program for such young children was a consequence of experience with older children of a similar background. During two and a half years of experimentation in the Elementary School of ISB, results suggested that

logical skills were of particular importance in a classroom with a multilingual background. Moreover, the hypothesis that children with a bilingual education are particularly adept at symbol manipulation is now widely accepted. Introducing symbolic logic to young bilinguals is a natural extension of this hypothesis.



In the course of this paper, I hope to justify these bald assertions. First, I shall discuss the content and rationale of the teaching of critical thinking skills and of the Philosophy for Children Program on which my work has been based. Secondly, I will describe experiences at the International School of Brussels. In the final section the results achieved at ISB will be related to open questions in the field, in particular those related to the multilingual classroom.

CRITICAL THINKING SKILLS

There are a multitude of reasons for encouraging children to think. The teaching of critical thinking skills goes further than mere encouragement. The very rubric here is suggestive. The label 'Critical Thinking Skills' was chosen for the courses at the ISB not only to defuse fears of philosophy and logic courses in the Elementary School but, advisedly, to emphasize elements in the program. Critical thinking is logical rigorous thinking; skills because they are teachable.

Critical thinking skills include, but are not exhausted by, the traditional range of reasoning skills: inferring, analyzing and evaluating arguments. They include all the skills which are involved in connecting and organizing our ideas, such as detection of ambiguity, the identification of members of a class in terms of likenesses, the appreciation of uses of analogy and metaphor, together with the uses of generalization, the recognition of cause/effect relationships, the modification of new ideas in response to criticism.

These thinking skills are broad ranging and utterly fundamental. No child learns to walk or talk without acquiring the ability to classify actions, and see—that is infer—the consequences. What is more, such skills are grounded in both the cognitive and the affective aspects of children. The two aspects are complementary: just as our thoughts affect us emotionally, so our feelings may be rationalized. In recent terms, we might say that many, but not all of these skills are 'metacognitive,' in so far as they involve thinking about thinking.

It would be a mistake to identify critical thinking skills as dryly analytic as opposed to creative. The dichotomy between critical thinking and creative thinking is a false dichotomy. Critical thinking should be opposed to uncritical, sloppy thinking; creative thought to mundane, uninventive thought. Good critical thought should be creative, just as successful creative work, even in the visual arts, is critical.

Moreover, critical thinking is a skill—it can be acquired, like other skills, and taught. The question is not whether thinking should be taught, but how. To some extent, all teaching is teaching how



to think. For instance, in teaching writing skills we teach the most widely used code; in arithmetic we have the paradigm of deduction. Is it really necessary to teach critical thinking skills independently? The response to this question will in part depend on the results of an independent critical thinking skills course. *Prima facie* there is, however, another response. Even if critical thinking skills could be acquired by teaching across the curriculum, is it the most efficient method? Children could learn arithmetic in the course of history, geography and science lessons, for each discipline uses arithmetic, but there are better ways of teaching arithmetic. The same holds true of critical thinking skills.

There is discipline in Western thought which has devoted itself to the discussion of thinking and of reason for some 2000 years. This is philosophy. Philosophers have categorized arguments, provided the framework for logical talk, and used that framework in analyzing the notion of thinking itself. Philosophy also deals with

topics—logic, ethics, political theory or language for instance—on the basis of the quality of the arguments involved and the presuppositions of the topic itself. For instance, an applied system of ethics gives rulings on what to do in certain circumstances, a philosophical account of an ethical system justifies those rules. Philosophical discussion concentrates on the logical and justificatory—or metalevel—aspects of any topic. It is tailor-made for the teaching of critical thinking skills.

There is another characteristic of peculiarly philosophical thought. Philosophy does not demand purely empirical knowledge. Once a subject has become a science, for instance, it is no longer strictly speaking philosophical—physics separated from speculative philosophy as it became a discipline relying on data. This century, under pressure from, for instance, Heisenberg's uncertainty principle, questions such as whether an effect can precede its cause have arisen. These questions are in part philosophical, and

philosophers have once again a role in theoretical physics. On the other hand, philosophy does not involve empirical knowledge in the way that history does: a philosopher is not so much interested in the facts as the reason for their being that way.

This has a welcome consequence. Philosophy as a speculative discipline relies more on reasoning skills than empirical disciplines. No one can be creative in physics—or in history—without such a solid grounding in the discipline that it is only acquired after years of learning the facts. Despite our best efforts, learning the facts has been so much a focus of our education that we tend to forget that facts can obscure the reasoning involved in discussing them. Philosophical skills, on the other hand, emphasize the reasoning involved. Hence, they are accessible to those, such as children, who do not have all the facts. This is not to say philosophy is easy. It is to say that it emphasizes reasoning, in a way other disciplines may not; and that spe-

culative philosophical questions—what is it like to be a bat, for instance—are open in a way that questions about the composition of the sun are not. No child likes being asked to speculate about a question the answer to which is known. While a child's answers to a philosophical question may be unsophisticated, they may well not be simply wrong as a matter of fact.

Drawing these threads together, philosophy is a discipline consisting of formal accounts of reasoning and discussion of issues, which are not content oriented, but which rely on critical thinking. As such, it seems the perfect subject to improve critical thinking skills. Of course, academic philosophy is couched in technical vocabularies, often not appropriate for children. But issues can be presented within a narrower vocabulary. And the traditional method of training in philosophy is that of discussion. The Socratic dialogue is not mere chat, but a rigorous investigation of one's own and others' ideas. In the classroom, a discussion mobilizes the children's desire to talk, and the rigor imposed on the discussion develops the reasoning skills they need.

This is the style of the Philosophy for Children Program, developed by Matthew Lipman in the United States some 14 years ago. Discussion is stimulated by a series of philosophical novels, in which children model the process of philosophical discovery. Teachers' manuals offer guidelines for discussions, exercises and philosophical background. But each teacher and class are intended to develop their own 'community of inquiry,' in which opinions can be critically, yet inoffensively evaluated, and in which the teacher is the arbiter not of the correct answers, but only of the canons of rational discussion.

The novels are designed for the entire range of schooling. The progression is from broader, more general issues such as questions about perception, reality, language or number, through the pivotal use of logic in the novel punningly entitled, *Harry Stottlemeier's Discovery*, to ethics and political philosophy for older students. Central to the program is the emphasis on a version of the Aristotelian syllogistic: a limited, but nevertheless quite rigorous logical system, designed to

be taught to 5th and 6th grade students. The discussion mentioned in the introduction to this paper draws on this part of the program.

The Philosophy for Children Program has been widely tested in the United States. I cite results formulated on the basis of the *New Jersey Test of Reasoning Skills (NJTRS)*, developed specifically for the Philosophy for Children, but correlating highly with other tests, such as the Cornell Test, as well as with college placement tests. Testing was performed in the United States by the Educational Testing Service, the largest body in the U.S. which performs such tests. The startling fact is that performance of students given no extra reasoning training on the NJTRS improves steadily through grades 2 to 6, then stops. Table 1 summarizes U.S. norms.

PERFORMANCE ON THE NJTRS, U.S. NORMS (Control)										
Grade Level	2	3	4	5	6	7	8	10	13	
Score (/50)	22.7	27.7	34.5	35.8	37.2	35.0	37.2	37.3	38.2	
(The improved score on Year 13 is illusory, since only College entry candidates were included.)										

FIGURE 1

From Table 1, it is clear that students in the United States average roughly 75% in Grade 6 but improve very little from then on. This is a situation which should not be accepted with equanimity. We should all reason nearly perfectly. Intervention with training in philosophy for children does improve performance. Whatever the explanation of low scores, we should be doing something about them.

Intervention with training in Philosophy for Children improved performance on the New Jersey Test, according to the Government-sponsored Newark experiment. Students in Grades 5 to 7 can, with training, move one quarter of the way from their current performance to error-free performance. Moreover, reading and mathematics scores also improved, as a result of intervention with Philosophy for Children.

In the current atmosphere of insistence on basic skills, the rigor and concentration on meaning inherent in a program of critical thinking skills has attracted attention. Indeed, what children require to survive in a changing world

may not be more facts, but the ability to reason better.

THE INTERNATIONAL SCHOOL OF BRUSSELS, 1987-1989

I introduced the Philosophy for Children program and then modified it for use in ISB from 1987-1989. Within the United States the program has recently been included as an approved program with the National Diffusion Network—for ISB its introduction was an innovation which required experimentation, teacher training and a certain degree of persuasion of both staff and parents.

There were particular reasons for introducing philosophy for children in an international school, over and above those general reasons above cited. International schools typically have a heterogeneous student—and staff—population, with mixed ethical, political and even cognitive attitudes. Within a sensitively led community of inquiry, some of those differences can be explored, with benefits to all the group, including teachers. Discussions with young children which range from what it is to be a friend, to whether the equator was discovered or invented, reveal not just differences, but common ground. The strict logical constraints on discussion are generally appreciated as a framework.

International schools also typically have classes of mixed linguistic background. On the one hand we might expect the very careful attention to meanings typical of philosophical discussion to benefit those whose mother tongue was not English. On the other hand, results such as those of Lambert, Ben-Zeev and Cummings suggest that bi- and multi-lingual children acquire a linguistic and cognitive flexibility in the process of acquiring a language. This flexibility might well be apparent in philosophical work.

This, then, was the basis of my proposal to work at ISB. As a result of the proposal, I ran an experimental program in the teaching of critical thinking skills in the Elementary School from September 1987 to December 1989. The program had three major components:

a. A teaching component

For each grade level, 1 through 6, a novel from the Philosophy for Children program was chosen, and a syllabus

designed for the year. In general, each class was allocated one one-hour (45 minutes for 1st, 2nd and 3rd grade) a week—somewhat less than the two-and-a-half hours a week normally assigned for a full Philosophy for Children program. Each year, I led four or five groups, by the end of 1989 I had run a group at every grade level, 1 through 6, and had introduced all but one of the novels in the Philosophy for Children Program. During 1988/1989, I had also developed a special course in logic for a group of 20 gifted children, grades 2 through 6.

b. Evaluation

For each class taught, another group at the same grade level was chosen to act as control, for experimental purposes. Informal results were gathered as to the level of reasoning skills in the classes I had taught, as compared with the groups I had not taught. Several videos of the

classes during critical thinking skills lessons were taken for the purpose of informal evaluation.

For age groups over 2nd grade level, competent to sit the New Jersey Test of Reasoning Skills, pre- and post-testing was performed. Students from each group, control and experimental, attempted the New Jersey Test of Reasoning Skills before and after the course was given. This provided a measure of the increase of skills due to the experimental program, as opposed to improvement due to natural maturation, school programs and increased facility in English among non mother tongue students.

c. Teacher training

Throughout the period from 1987-1989, teacher training sessions were offered with the support of the school. Some 10 teachers and several parents completed the teacher training course

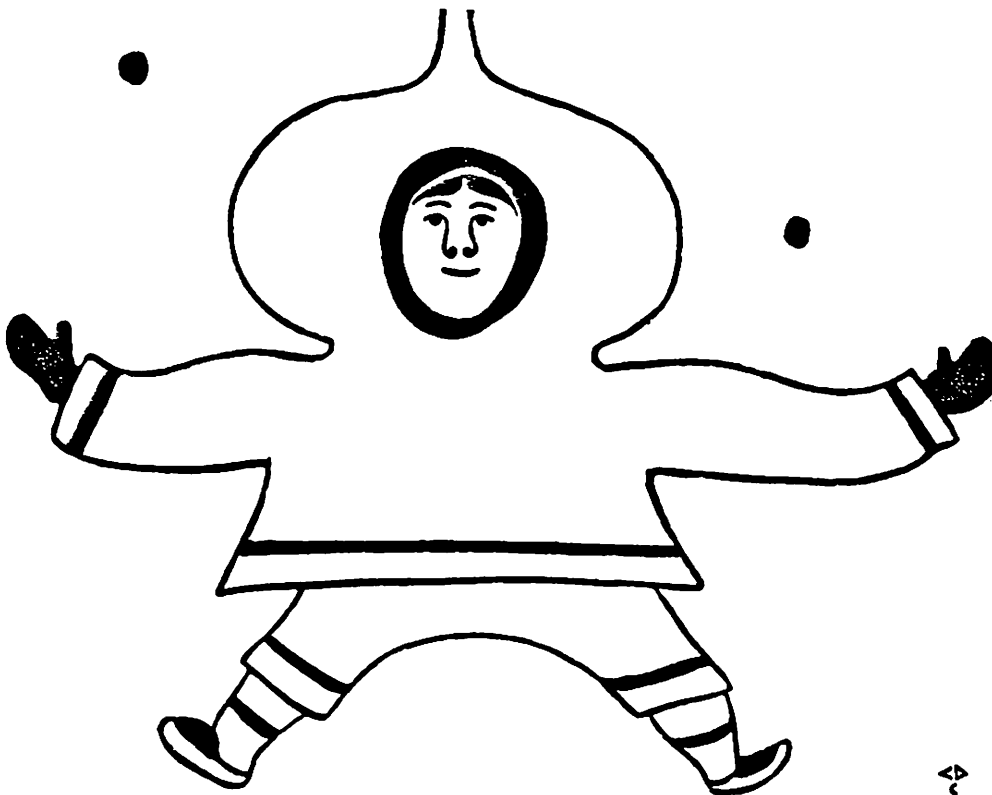
and a number of them have been and will be using the program and continuing the work in the classroom. Teacher training programs were given in the style of the Philosophy for Children teacher training programs, for which I had been trained.

In general the results of the introduction of critical thinking skills were extremely satisfactory. The informal, anecdotal evidence shows the extent to which even very young children can reason clearly. A few examples will suffice to show the level of discussion.

In one second grade class (2E, April, 1988), there was a discussion of whether electricity was discovered or invented. The same question was raised for electric light. The children decided that we can only discover things that are there already. What of the equator, I asked. One child said it must have been invented: there is no line around the middle of the earth. Another argued that even if there was no line, the place the equator is was always there. So the line was invented, but what it passes over could only have been discovered. This is subtle reasoning for a group of 7-year-olds.

A first grade group (1E, February, 1989) was equally subtle when faced with the question whether there were numbers before there were people. One child said, "Well, if there were 7 trees, there were 7." Another replied, "But no one knew there were seven, so they were just some trees." After a detour through the question of whether animals could grasp numbers, and a discussion of different ways of saying and writing seven in different languages and scripts, the two children continued their argument. Neither could convince the other: one said there would have been seven trees, the other said there would have been the things, but you couldn't say there would be seven of them.

These two examples illustrate one of the delights of philosophical discussion



A
A
C

with young children. Children are naturally speculative, have a sense of wonder about the world and a degree of philosophical interest that is rarely found in the adult student of philosophy. They also reason with great ingenuity when their ideas are questioned, and indeed even when not. I have yet to introduce the notion that "all" sentences do not convert to a class, without some child finding a counterexample. In general, when All A's are B's is true

All B's are A's is not.

So, for instance, "All lizards are reptiles," is true, but "All reptiles are lizards," is not. But there are counterexamples when $A = B$, which children find quickly. For instance, there are counterexamples like, "All people are human beings," (Samir, *ZT*, October, 1989).

In the group of gifted children, one fourth-grader explained that "A" sentences will convert whenever the two words mean the same, while another corrected him, saying the two words don't have to mean the same, just describe the same

things. Precise examples took some time to construct:

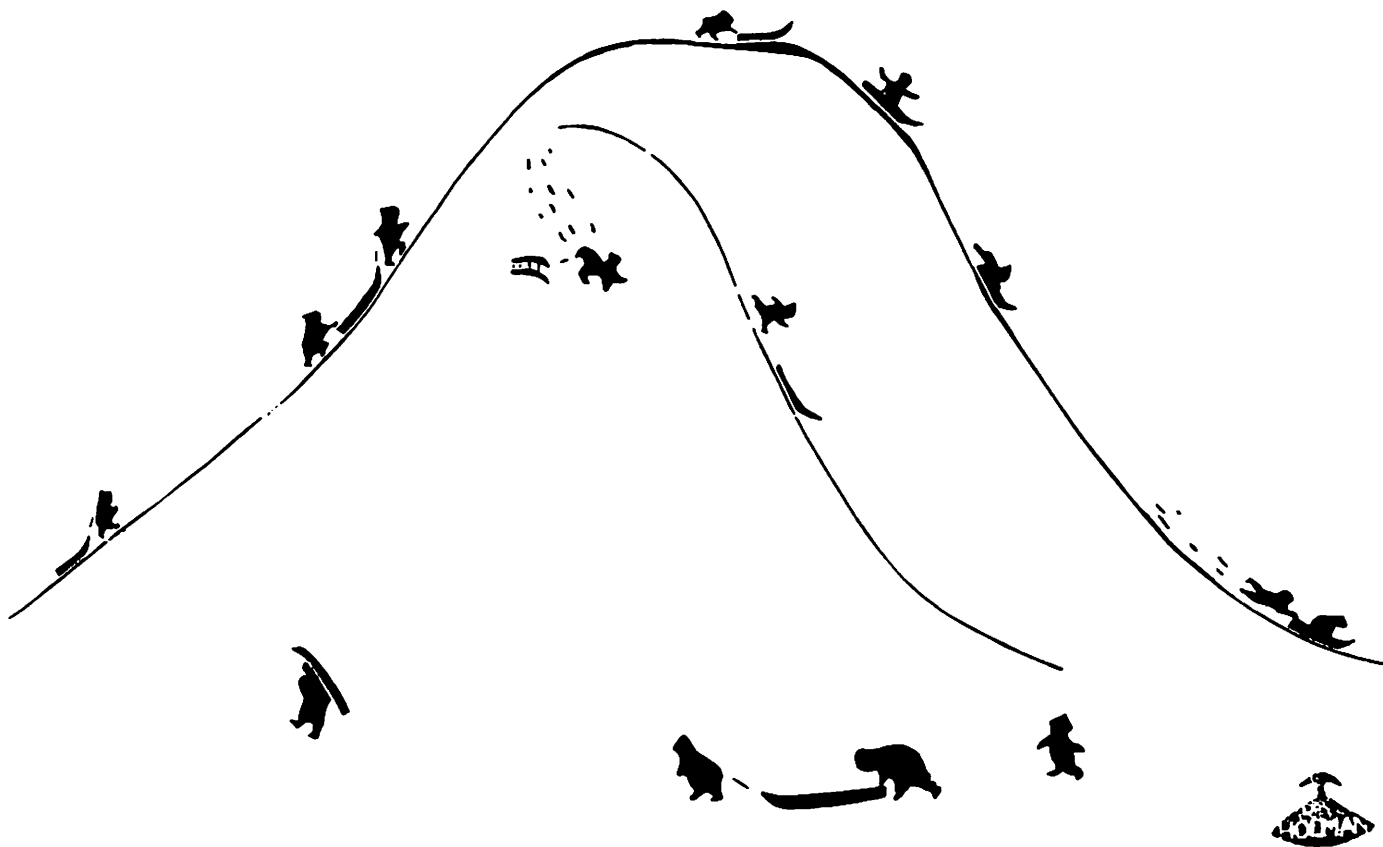
All equilateral right-angled 4-sided figures are squares was one suggestion, but in this case square may just mean equilateral right-angled 4-sided figures. Another example exploited the fact that All tall kids in this class are on the swimming team, to show that there are "All" sentences which convert in which the two noun phrases are not synonymous. This is logic at its best: precise and constructive.

There is much more anecdotal evidence of this sort. The formal results of testing using the New Jersey Test of Reasoning Skills was also of great interest. In general, pre-test results in the elementary school showed that classes were below U.S. norms. This is to be expected in the multilingual environment of the International school classroom. The unexpected result was that post-testing showed that the experimental

work not only had statistically significant impact, but in fact took classes to levels well above the U.S. norms. This pattern has continued over several years of testing even in some cases when students had only ten weeks of training in critical thinking skills.

In the Appendix, Tables 2 to 8 give a survey of results of experimental work in the grade 3 through 6 classrooms. Comparison of the control and experimental groups shows a consistent pattern. The control group scores improved, as expected, by roughly 2 to 3 points over the year. The standard deviation in such groups stayed roughly the same. But the experimental groups improved by quite startling figures, indeed by very much more than would normally be expected of intervention with Philosophy for Children. Moreover, standard deviation generally decreased in the experimental group, showing a reduced spread of results between weak and strong students.

There is no doubt that Critical Thinking Skills as taught at ISB improved



reasoning skills to a startling degree. The repetition of these results over several years, in classes with a variety of classroom teachers rules out an explanation by lucky coincidence. As the classroom teachers will witness, the brief teaching period was not purely test oriented, and indeed there was very little emphasis on testing. The question remains as to why this particular group of children should consistently benefit from training in critical thinking skills.

CONCLUSIONS

The elementary classroom in an international school is typically multi-lingual and multi-cultural, and as such demands a particular attention to language. In testing of any sort, the logical fragment of language is extremely important. The logical words include: If . . . then; All . . . ; No . . . , Some . . . ; not, and; so, it follows, therefore, Only; Only if . . . then.

Command of these logical words characteristically relies on grasping not just when their use in a sentence would make that sentence true, or appropriate, but also the logical relations between sentences containing the logical word and other variants. The example of conversion of sentences beginning with "All" in the introduction is one example. Another is the relation between "All" sentences and those beginning with "Only." "Only 5th graders are coming to the party," means the same as "All the kids who are coming to the party are 5th graders," not *vice versa*. Logical words are difficult to use correctly and utterly crucial to testing.

The import and complexity in the use of logical words is not reflected in the use of logical words in the playground, or even in the classroom. For children whose mother tongue is not English, grasp of the logical words of English may take time and special attention. Often, there is no direct translation of some of the English structures using these words in the mother tongue. Even for mother tongue English speakers, the logical words are difficult. Comprehension and use of those words in the classroom, whether in discussion of logic or of other issues may make an enormous difference to performance in tests. This was my preliminary hypothesis when faced with the results of testing at ISB.

Confirming that hypothesis would involve much more experimentation. But there remains another factor in need of explanation. Why should minimal training in critical thinking skills have such a disproportionate impact in the classroom in the International School context? Again, the answer must be speculative. One strategy is to concentrate once more on the multilingual nature of the target group.

There is a great deal of literature dealing with bilingual education which suggests that in certain favored circumstances, bilingualism may be "additive." In those circumstances, according to research by Cummins (1976, 1978, 1984), Ben Zeev (1974, and Ianco Worrall (1974), bilingual children at even very young ages have increased linguistic flexibility as a result of their bilingualism. Cummins (1978) argues that bilingual children have increased metalinguistic skills—they can, he suggests, see language as a system more readily than their monolingual peers.

My own work in this area (forthcoming) suggests that, in fact, minimal training in critical thinking skills is more effective than untutored bilingualism in enabling children to see language as a system. Indeed, metalinguistic skills in general were, I found, generally not significantly higher among young bilingual children than among their monolingual peers. However, I did find that bilinguals were generally significantly stronger in one respect than their monolingual peers: on symbol substitution tests.

Ben Zeev, Ianco Worrall and Cummins talk specifically of such skills in manipulating symbols. Bilinguals are early able to grasp such questions as:

Suppose 'dog' means 'cold'.

What does it mean to say

"I hate dog days"?

as well as other more abstract questions about switching the meaning of words, questions which are difficult for their monolingual peers. This very linguistic flexibility might make bilinguals particularly quick to acquire new logical terms.

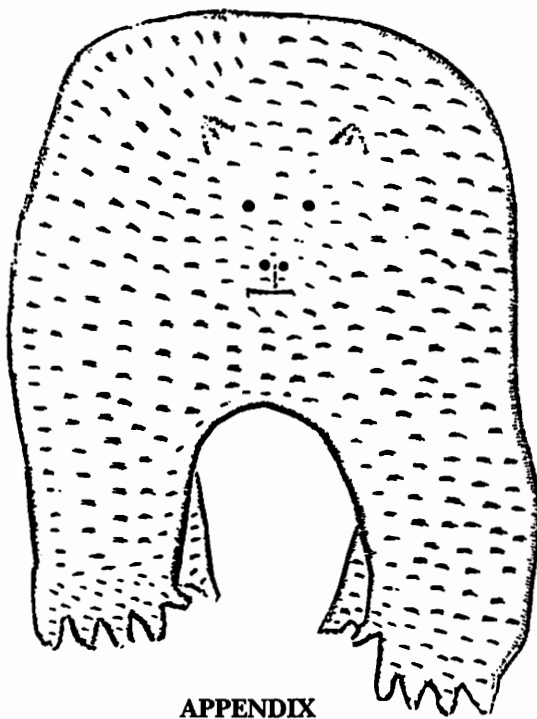
Moreover, symbol substitution skills are closely related to skills involving the use of variables. The use of variables is

generally not introduced in schools until algebra is taught in the middle school, but it is precisely the skill the second-grade class uses when I teach them logic. The argument pattern, "All A's are B's, All 'B's are C's so all A's are C's," is essentially a symbolic argument schema. It is indeed known as symbolic logic. What is evident is that second-graders from the multilingual background characteristic of ISB find such symbolic logic entirely natural.

Evocative though these ideas may be, no concrete confirmation of them surfaces in the results above. A preliminary differential study with monolingual and bi (or tri) lingual subjects independently evaluated showed the difference in their performance was not significant. This may well be because there are very absolute monolinguals in the group; all have some exposure to a second language.

One objection to the teaching of critical thinking skills, and in particular to the teaching of logic, to very young children is, I am quite certain, unfounded. The results above suggested that logical words were of particular import in testing. With that in mind, I have been introducing basic Aristotelian logic not only to 5th, 6th grade children as intended in the Philosophy for Children Program, but also to 2nd, 3rd and 4th-grade students. This is, to my knowledge, the first experiment in teaching logic at such an early age. Results are overwhelmingly positive. Not only do the young children not have any difficulty with the concept of argument forms, the use of variables and the notions of consequence, they also appear to enjoy the activities involved. One suspects that they derive enormous satisfaction from finding counterexamples to a rule the class has just worked out.

The arguments for and against the use of abstract notions and formal operations, such as the notion of consequence and the use of variables are well charted (see bibliography.) We have come to doubt inflexible developmental timetables. In certain circumstances, and in particular, possibly, in the international elementary school, there may be benefits in the early introduction of logic—an introduction far earlier than traditional Piagetians would allow.



APPENDIX

GRADE 5, 1987-1988		
	Pretest	Post test
Control	$\bar{x}=33.8$ $\delta=10.03$	$\bar{x}=35.8$ $\delta= 9.7$
Experimental	$\bar{x}=28.2$ $\delta=12.0$	$\bar{x}=37.6$ $\delta= 7.9$

(where \bar{x} is the mean, and δ is the standard deviation)

Table 2

T tests confirm that this result is statistically significant. The experimental group moved from well below U.S. norms of 35.8 to well above. The standard deviation also decreased. The same effect occurred in the 4th Grade.

GRADE 4, 1987-1988		
	Pretest	Post test
Control	$\bar{x}=28.75$ $\delta= 5.58$	$\bar{x}=31.03$ $\delta= 6.38$
Experimental	$\bar{x}=19.65$ $\delta= 8.79$	$\bar{x}=33.3$ $\delta= 6.68$

TABLE 3

The results have been confirmed in later years.

GRADE 5, 1988-1989		
	Pretest	Post test
Control	$\bar{x}=33.66$ $\delta= 5.61$	$\bar{x}=37.54$ $\delta= 4.06$
Experimental	$\bar{x}=33.18$ $\delta= 6.29$	$\bar{x}=39.45$ $\delta= 5.36$

TABLE 4

GRADE 6, 1988-1989 (This group had less than 10 weeks exposure).		
	Pretest	Post test
Control	$\bar{x}=39.00$ $\delta= 6.48$	$\bar{x}=39.35$ $\delta= 5.89$
Experimental	$\bar{x}=35.44$ $\delta=12.71$	$\bar{x}=40.88$ $\delta= 9.23$

TABLE 5

GRADE 6, 1989-1990 (10 weeks exposure)		
	Pretest	Post test
Control	$\bar{x}=35.77$ $\delta= 9.78$	$\bar{x}=33.08$ $\delta=10.68$
Experimental	$\bar{x}=37.07$ $\delta= 8.31$	$\bar{x}=41.80$ $\delta= 4.79$

TABLE 6

GRADE 5, 1989-1990 (12 weeks exposure)		
	Pretest	Post test
Control	$\bar{x}=36.85$ $\delta= 5.11$	$\bar{x}=30.00$ $\delta=12.89$
Experimental	$\bar{x}=37.82$ $\delta= 8.39$	$\bar{x}=41.91$ $\delta= 6.53$

TABLE 7

GRADE 3, 1989-1990 (12 weeks)		
	Pretest	Post test
Control	$\bar{x}=16.75$ $\delta= 6.62$	$\bar{x}=28.83$ $\delta= 7.22$
Experimental	$\bar{x}=13.77$ $\delta= 6.17$	$\bar{x}=30.62$ $\delta= 7.05$

TABLE 8

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Evaluation of a Philosophy for Children Project In Hawaii

This is an assessment by Dr. Kenneth A. Meehan, Director of the Native Hawaiian Project at the University of Hawaii, of a Philosophy for Children experiment conducted in 1987-88 by Dr. Thomas Jackson, Director of the Hawaii Philosophy for Children Center at Manoa.

by **Kenneth A. Meehan**

The Philosophy for Children Project constitutes a cooperative enterprise on the part of the University of Hawaii at Manoa, Department of Philosophy, and the State of Hawaii Department of Education. Its primary mission is to teach Hawaii's school children critical thinking skills. This is achieved, in part, by nurturing the spirit of inquiry through dialogue and discussion in the classroom of topics of special interest and relevance to children.

The Philosophy for Children Project employs a curriculum composed of seven philosophical novels and accompanying teacher's manuals developed by Professor Matthew Lipman at Montclair State College. This curriculum may be used from kindergarten through high school. A unique feature of the project is the inclusion of faculty and graduate teaching assistants in the Department of Philosophy in public school classrooms with Department of Education teachers. The project seeks to intensify the impact of both the substance and methods of philosophy and to provide the necessary support for classroom teachers.

The Philosophy for Children Project was introduced into the Department of Education schools several years ago. The project has introduced philosophy into the curriculum in the schools in which it has been in place. Formal evaluation of the project began last year, so that test results are now available for two consecutive years of the project's operation.

During the 1987-88 academic year, the Philosophy for Children Project operated in ten of Hawaii's public schools around the state. Eighteen teachers and over 1000 students participated in the project. The project has been used with a diverse population of students, from those identified as gifted and talented to juveniles incarcerated at the Hawaii Youth Correctional Facility. Over the two years of the project, more than 2000 students have participated in the project. Graduate students enrolled in the Department of Philosophy at the University of Hawaii at Manoa were present in public school classrooms during at least one of the two required forty-five minute periods per week throughout the academic year. Their task is to facilitate classroom peer-group

discussion of the philosophical issues raised in the readings. While the primary goal of the Philosophy for Children Project is to teach Hawaii's school children to think critically, it also teaches and reinforces skills in conceptual clarification and logical analysis necessary for speaking, reading and reasoning.

Method

Participants

The participants in the Philosophy for Children Project included over 1000 students enrolled in classes spanning kindergarten through sixth grade. However, not all of the students participated in all data collection phases. For example, 856 students completed the New Jersey Test of Reasoning Skills, although not all students completed the measure on both occasions of its administration. Twenty-eight teachers completed a questionnaire regarding the implementation and evaluation of the Philosophy for Children Project.

Procedure

This evaluation was conducted using materials provided by the Project Director,

Dr. Thomas Jackson, Department of Philosophy. These materials included the results of the administration of the New Jersey Test of Reasoning Skills, a measure developed specifically for the Philosophy for Children Project by Virginia Shipman of the Educational Testing Service, Princeton, New Jersey. This measure was administered prior to and following the program intervention to students involved in the project. The test was also administered to a group of control students matched with project students on a number of demographic variables. In addition to the quantitative information provided by the New Jersey Test of Reasoning Skills, qualitative data on the implementation and evaluation of the project were obtained through questionnaires administered to teachers involved in the project.

As a major objective of the Philosophy for Children Project in the improvement of critical thinking skills, the New Jersey Test of Reasoning Skills constitutes one focus of the evaluation. Changes in students' scores over the course of the project are taken as indicators of the growth of critical thinking skills. To the extent that the project has accomplished its objective, project students have demonstrated improvement on the New Jersey Test of Reasoning Skills, and this improvement should exceed any improvement that results from other sources of influence in control group classrooms. Data on this project which have been collected for the past two years were combined in order to provide a more robust statistical analysis.

The teacher questionnaire contains information about the implementation of the project. From this information it was possible to calculate the extent to which implementation of the project intervention was carried out with fidelity. The ratings of materials and remarks concerning strengths and weaknesses of the project proved valuable in creating a context in which inferences about the impact of the project could be embedded.

Results

Several analyses were conducted upon the data which were collected. The principal analyses concerned the scores achieved by students on the New Jersey Test of Reasoning Skills administered in the Fall of each academic year, prior to the project intervention, and again in Spring

of each academic year, upon completion of the project intervention for the academic year.

Table 1 presents the mean raw scores on the New Jersey Test of Reasoning Skills for project and control group students on the two occasions. As previously noted, many students failed to complete the test on one or other occasion and were not included in the analyses. However, a sufficiently large number of students did complete the test on both occasions and there is no evidence of any systematic interaction of failure to complete the test and project intervention to confound the results.

Mean Raw Scores on New Jersey Test of Reasoning Skills by Occasion and Project Participation		
	Fall	Spring
Project Students	28.41	32.68
Control Students	28.57	29.00

Table 1

The results indicate that the Project has contributed to the development of critical thinking skills beyond what could be accounted for by normal cognitive maturation and exposure to school. This combination of results over the past two years of the Philosophy for Children Project, which is more robust than either of the two years alone indicated that project and control students begin the academic year with essentially equivalent scores on the New Jersey Test of Reasoning Skills, but that over the course of the project intervention, project students show significantly greater growth in the critical thinking skills measured by the New Jersey Test of Reasoning Skills than do control group students. Over the course of the two years, then, it is evident that the project has met its major goal. On the average, students who participated in the Philosophy for Children Project had significantly greater improvement in critical thinking skills, as measured by the New Jersey Test of Reasoning Skills than did students who did not participate.

One further analysis was conducted to ascertain the extent to which the impact on critical thinking skills of students was related to grade level. The focus of this analysis was on students in Grades 5 and

6. Table 2 presents these results.

Mean Raw Scores on New Jersey Test of Reasoning Skills by Occasion and Grade Level		
	Fall	Spring
Grade 5 Students	30.60	33.26
Grade 6 Students	27.68	31.37

Table 2

What is evident is that, for groups of students represented in the 1987-88 project sample, fifth graders began the year scoring significantly higher on the New Jersey Test of Reasoning Skills and maintained the significant difference over the course of the academic year. This differs from the results to the 1986-87 administration of the New Jersey Test of Reasoning Skills, where there were no significant differences between grades either prior to intervention or following the academic year of project activities. What is demonstrated, however, is that significant growth over the academic year did occur for both fifth and sixth grade project students.

One additional analysis was conducted to determine whether or not there was a relationship between fidelity of intervention and improvement in critical thinking skills. It was possible to determine, using information provided on the teacher questionnaires, the onset of the project and the frequency and duration of project implementation over the course of the year. Data collected on the teacher questionnaires indicated that the project was not uniformly implemented. Some schools did not begin the project until November, rather than September. In some schools, the project activities took place only one, rather than two, days a week. And in some schools, the project sessions occurred for less than forty-five minutes each session.

An index was created which took into account these three factors as well as the number of sessions missed over the course of the academic year. This index was then correlated with changes in critical thinking skills as measured by the New Jersey Test of Reasoning Skills. The correlation was .41. This stastic replicated the results of the previous year and indicates that the more faithfully and consistently the project was executed, the greater the changes

in growth of critical thinking skills. This may be taken as one additional indication of the efficacy of the Philosophy for Children Project in promoting critical thinking skills.

Teacher Questionnaires

At the conclusion of the project year, questionnaires were administered to teachers involved in the project. Many of the questions which were included in the questionnaire secured information about characteristics of the student sample in each of the classrooms and the implementation of the project, e.g., grade level, program type, when program was implemented, frequency and duration of project implementation. Information about project implementation was included in the analyses above.

In addition to the collection of information about students and project implementation, several questions addressed significant issues in the evaluation of the Philosophy for Children Project. In general, there was enthusiastic support for the Philosophy for Children Project among the teachers who participated in it. The teachers generally indicated that there was carryover of philosophical or critical thinking skills into other subject areas and into other activities in the school day. There was little feedback from other teachers concerning changes in behavior or attitudes in project students and there was little feedback from parents. Teachers felt that there were changes in the class dynamics in the course of the year and attributed those changes to the Philosophy for Children Project. Teachers also indicated problems with scheduling, with integration of the project into the curriculum, and lack of consistency in implementation of the project.

In general, however, teachers lauded the growth of critical thinking skills in their children. Teachers pointed specifically to growth in awareness, spontaneity of thinking, improvement in oral communication, improvement in listening skills, and growth of respect for alternative perspectives.

The teachers also pointed out the impact of the philosophy graduate students in the project. Teachers pointed to the excellent role models which the graduate students and project director provided to themselves and the students.

The following comments were made by

teachers in response to questions about the project:

1. Did you observe carry-over of philosophical or critical thinking into other subject areas?

- * Children were more aware of statements they made to others and vice versa. They would feel a need to qualify their own statements or critique statements made by others.
- * In language arts. Students could identify ambiguous words. The level of questions asked became increasingly higher.
- * In literature, when philosophical ideas were discussed.
- * Students were more conscious of kinds of questions they asked and definitions of words. They were not as quick to accept what they read or heard.
- * Carry over into social studies and guidance classes.
- * During social studies and science.
- * Students began to debate issues in other subject areas. They also began to question more.
- * In reading and discussion of stories.
- * Students were able to address each other and hold discussions.
- * Idea of "real" discussed in basal story and play children went to see.
- * In problem-solving activities.
- * The students became more aware of critically analyzing problems in math in order to solve them.
- * Children would say what they think and back up their point with details.
- * The children learned how to ask questions, something they could not do very well in the fall.
- * The children were able to focus.
- * Topics which were discussed would be included in their daily writing assignments.
- * Topics discussed were followed up by writing activities where students stated their ideas and reasons.
- * In reading, students were more aware of ambiguous meanings.
- * In relating a specific concept like ambiguity whenever it arose.
- * The children offered counterexamples and were more critical of their written materials. They also learned to listen to what other children had to offer.
- * In science, making comparisons; in social studies, learning to question; in language, recognizing the ambiguity of words and the problems of com-

prehension they may present.

- * In language arts, students were more aware of ambiguity.
 - * Students were very aware of criteria when discussing science and social studies issues.
- #### *2. Did you observe carry-over of philosophical or critical thinking into other activities in the school day?*
- * In interactions with peers and parents.
 - * During our game of Pros and Cons on controversial topical.
 - * Problem-solving using logical reasoning was often used in resolving conflict.
 - * Students were very aware of the implications of using "all" statement.
 - * Looked for distinctions between truth and fantasy.
 - * Having more tolerance of what others shared made the students more willing to participate in discussions.
 - * Students improved in listening to one another. They were more willing to show appreciation of thoughtful contributions to discussions.
 - * Students developed better listening skills.
 - * My students definitely developed better listening skills and seemed to appreciate different points of view.
 - * Children began to give their reasons on why or how they felt about issues the class was covering.
 - * Students paid particular attention to detail.
 - * Whenever disagreements arose, it was easier to settle the problem since the children are more able to listen to each other.
 - * Helped with problem-solving.
 - * Students became more vocal in choosing and planning activities.
 - * Students' conversations show deeper thinking and questioning.
 - * Better working relationships in small groups.
 - * When there were personal problems to solve, especially a group problem, students were able to go through steps to identify and solve problem.

In addition to these specific comments, teachers identified the main strengths of the program as teaching children to do critical thinking, to better communicate with others, and to hear and listen to another point of view. Teachers suggested that they could use additional help in how to present lessons through different ap-

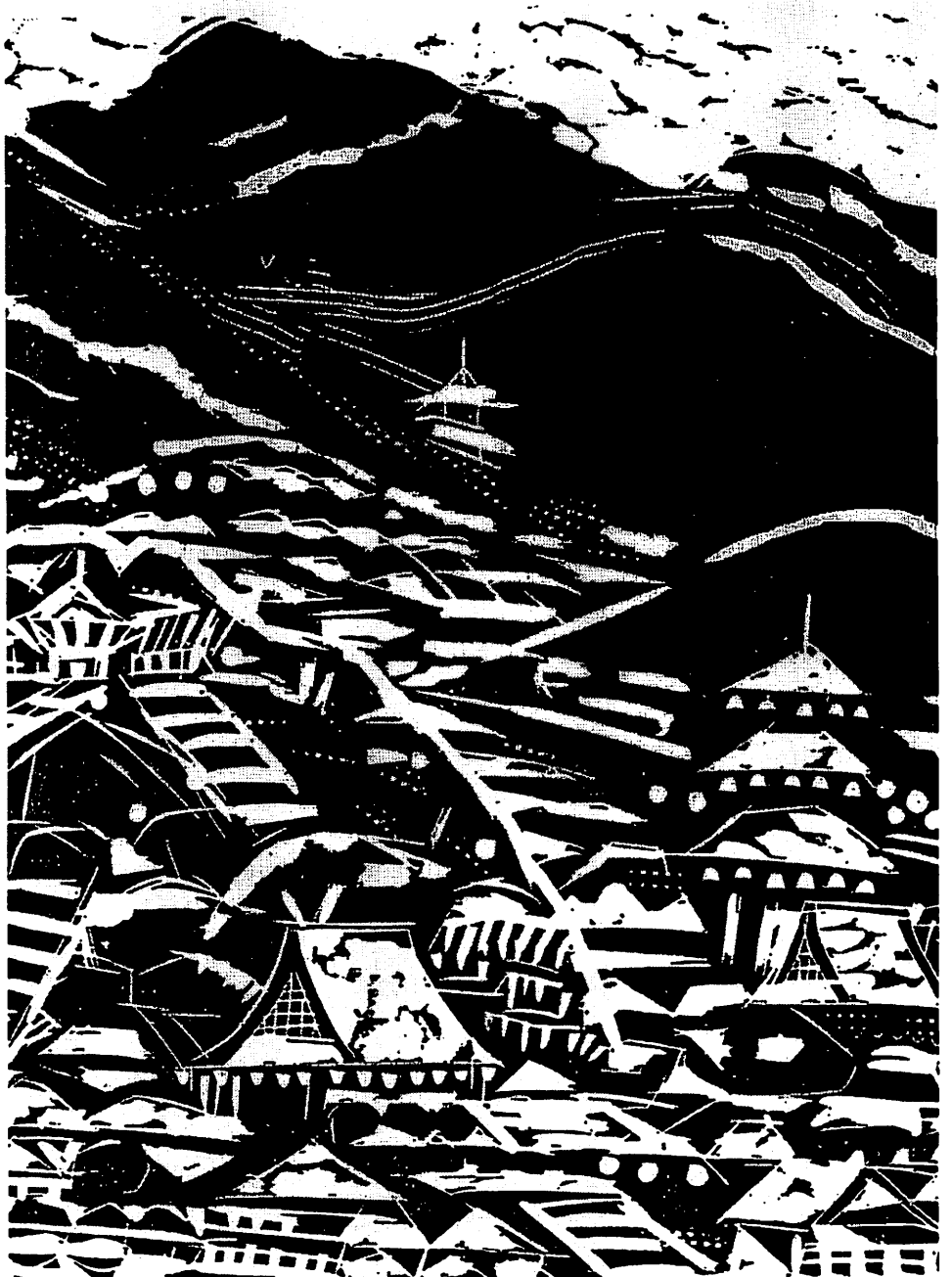
proaches. Finally, teachers were unanimous in their assessment that it was valuable to have a University of Hawaii participant as a regular part of the class sessions, primarily as a role model who could share expertise in philosophy.

One teacher's conclusion to the questionnaire indicated the enthusiasm that many teachers shared: As long as I teach, I'll use the program. I relate to the children better myself since I've used it and I enjoy and respect them more as fellow human beings. It's a very uplifting program.

The evidence presented in this report supports the continued development and implementation of the Philosophy for Children Project in the State of Hawaii Department of Education. The results of the last two years of the project together indicate that there is significant growth in those critical thinking skills measured by the New Jersey Test of Reasoning Skills and that the growth exceeds that of students who have not participated in the project, even with the infusion of critical thinking skills projects and emphasis generally in the curriculum of the schools as more teachers are exposed to and become sensitive to the development of critical thinking skills in their students.

The enthusiasm and favorable evaluation of the project by teachers is a strong argument for continuation of the project. It is evident that there are difficulties in the implementation and consistency of application of the project and its activities in the competition for classroom time. Teachers indicated that it wasn't always possible to carry out the project activities as scheduled, or to carry out those activities for the duration planned. The correlation between fidelity of implementation and growth in cognitive skills of participating students is a strong argument for the project. To the extent that training of teachers and graduate students is carried out, the project is begun in September, rather than October or even November, that the frequency and duration of project activities conforms to that which is required for consistency, then the project accomplishes several goals.

The Philosophy for Children Project has resulted in the growth of critical thinking skills in participating children and has significantly affected those children in other positive ways that teachers can readily identify.



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An Urban School District's Approach to Implementing a Comprehensive Thinking Skills Program

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The teaching of higher-order thinking skills to American students has commanded increasing attention especially during the previous decade. This emphasis on thinking skills stemmed partly from improved research on the topic along with its transfer to active classroom situations as well as a belief that the ability to think critically and creatively could augment student performance in traditional school subjects. These events converged with the correct *zeitgeist* and, as a result, higher-order thinking became firmly embedded into the "3R" profile of American education adding, arguably, the 4th "R" of reasoning.

The focus of this article is to illustrate how the implementation of a comprehensive thinking skills program was approached by a large urban school district, specifically, District 24 in New York City. District 24 is located in the Queens section of New York. It is comprised of 19 elementary schools and 6 intermediate schools containing a population of over 25,000 students and almost 2000 teaching and instructional support professionals.

Also, District 24 is an ethnically diverse, multiculturally rich community with a large immigrant population. This component adds a unique dimension to many of its schools and, by extension, to the types of instructional programs appropriate for them, especially those connected with thinking processes.

These programs include Lipman's Philosophy for Children (grades K-5), Taylor's Talents Unlimited Model (grades 1-5), Torrance's Future Problem Solving (grades 4-8) and Marzano's Tactics for Thinking (grades 6-8). The architecture of these programs varies with some functioning independently and others fitted into existing curricula. This approach is supported by Schwartz and Perkins (1989:96) who state:

Adopting a stand alone program and infusing teaching for thinking into the standard curriculum are obviously not mutually exclusive approaches. A school may incorporate both. In fact, we favor a version of such combined approaches, where this is possible, so long as one component complements and reinforces the other.

What these programs have in common is the belief that instruction in higher order thinking skills is as much a form of literacy as that ascribed to traditional content area subjects. Furthermore, training students in critical and creative thinking and learning skills assists them in transferring these skills both to school and real life situations. When it is pointed out that among these skills are brainstorming, effective questioning, analysis and situational evaluation, the value of thinking programs becomes even more apparent. Finally, the development of what Passmore (1975:30) calls a "critical spirit" that supports student cognitive processes can be an important force in sharpening these processes making them even more meaningful as well as practical.

PHILOSOPHY FOR CHILDREN

In 1981, the District received a grant from the National Endowment for the Humanities to pilot Lipman's Philosophy for Children, a program referred to by Marzano as "the Cadillac of critical thinking programs" (personal communication, January 9, 1990). Workshops to deliver staff development to teachers were instituted and, more importantly, an overall environment was created whereby students and teachers were comfortable taking intellectual risks in order to develop

a cohesive program in developing reasoning skills. Philosophy for Children was piloted in one school, PS 128 Queens, and then expanded to other elementary schools in the District. During this initial pilot stage, students in grades 3-6 were taught Philosophy for Children in the following sequence: Grades 3-4: *Pixie*; Grades 5-6: *Harry Stottlemeyer's Discovery*. Presently, pupils in grades K-2 are using *Elfie* as the novel of study.

Initially, teachers received special training in learning how to facilitate the discussion of ideas that emerged from the role-playing or script reading of episodes contained in the novels in the form of awareness workshops delivered by an individual certified as a program trainer. These specially trained teachers perform as facilitators in classroom discussions. Usually, these discussions

*"...the Cadillac of
critical thinking
programs."*

—Robert Marzano

center on concepts within the childhood experience such as friendship, secrets, dreams, loneliness, fairness, freedom and truth. The teacher elicits areas of concerns and guides pupils in a dialectical "community of inquiry" without fear of winning or losing.

The District felt that among the more appealing elements of Philosophy for Children is the fact that its open-ended nature allowed its successful use with children of varying ability levels ranging from special education to average to gifted children. As the program evolved in the District, an after-school, in-service course was offered by a Philosophy for Children trainer on an annual basis. Because this course carried the added incentive of allowing teachers to gain six graduate credits from a participating college as well as training in the program, it proved successful. As a further incentive, tuition funding was made available to assist teachers

expressing an interest in taking the course. A wide cross-section of teachers enrolled in the course which was leveled for Grades 1-3 teachers and Grades 4-6 teachers. In addition to classroom teachers, District 24's talented and gifted (TAG) teachers also received extensive training in implementing the program.

For the current 1989-90 school year, in order to provide the important evaluation maintenance components of the program, a District staff developer for the program was assigned to assist teachers in implementing Philosophy for Children in their classrooms. As an interesting aside, District 24 is also involved in an internationalized application of the program. One of its intermediate school faculty members certified as a Philosophy for Children trainer not only works with the program in the District, but, during the summer, implements it in Nigeria. This unique dimension of the program testifies to its wide-ranging and flexible application. Currently, over 5,000 students in District 24 are taught Philosophy for Children and over 140 teachers have been trained in the model which is taught in all 19 elementary schools utilizing a departmentalized approach.

TALENTS UNLIMITED

Another program offered in grades 1-5 is Taylor's "Multiple Talents Approach to Teaching." The specific talent areas of the program—productive thinking, communication, forecasting, planning and decision making—are studied sequentially and increase in complexity as children advance in grade and intellectual maturity. Initially, the Talents Model was utilized for gifted students in grades 1-6. When the program was first put into place in 1982, the TAG resource teachers were trained in the model by the certified trainer for New York State. Eventually, two teachers in the District became certified trainers in the model and they delivered all subsequent training. Currently, one of the certified trainers is the District staff developer for the program. Training workshops for teachers took the form of job-embedded staff development—that is, workshops offered during the school day—for the TAG teachers as well as for the classroom teachers assigned to what were called "talent pool" classes. In-

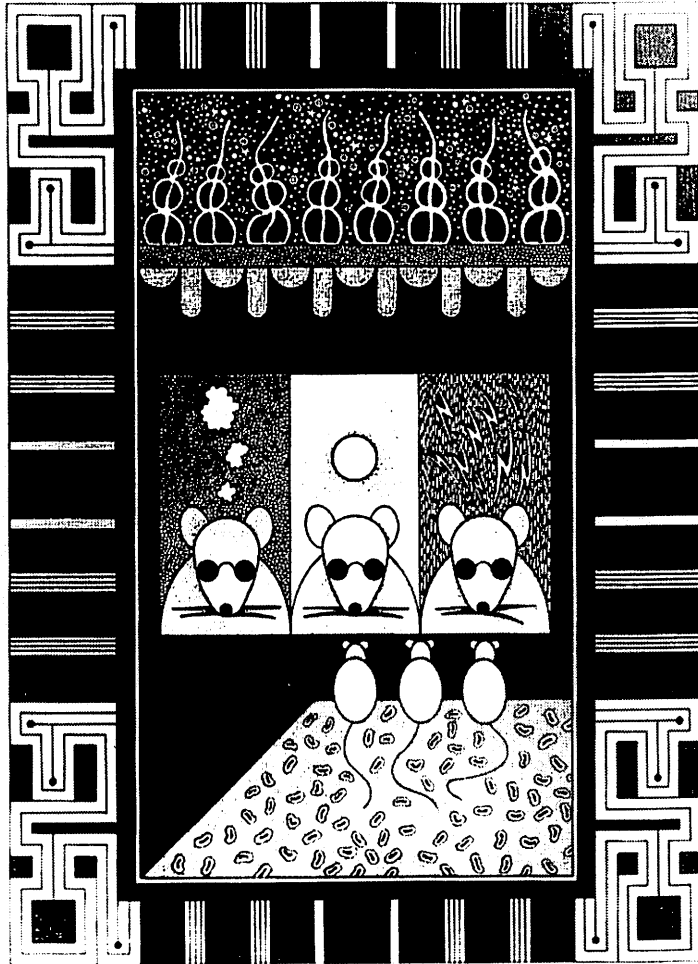
roduction to theory and demonstration lessons are provided for classroom teachers who are then encouraged to place these strategies into the daily instructional routine. A significant portion of this training is dedicated to assisting classroom teachers in implementing the program. This training, begun in 1982, has been offered in some form ever since.

Generally, the application of the program on a day-to-day basis involves the teaching of the five aforementioned talent areas by the TAG resource teachers. Classroom instructors, then usually infuse them into curriculum areas of language arts, social studies, science, mathematics, etc. Learning products, the outgrowth of lessons covered by the Talents Program, are encouraged and, where appropriate, displayed at the District's annual TAG Fair, an event which showcases projects developed by students involved in the program. Also, it should be added, that the Talents Model is one component of the District's overall approach to providing appropriate instruction for gifted students. A major part of this approach involves the Renzulli Enrichment Triad into which is fitted the Talents Model, generally as strategies included in Type II activities.

At present, the Talents Model is in place in all 19 elementary schools in the District involving over 7000 students. In addition, over 300 teachers have received training in the model since its 1982 inception. Since teachers can infuse certain aspects of the talent areas in the curriculum at all ability levels, the decision was made to begin the training of all regular elementary school teachers during the 1989-1990 school year. All first and third grade teachers have taken part in this training. During the next two years, all second, fourth and fifth grade teachers will, likewise, be trained.

FUTURE PROBLEM SOLVING

The Future Problem Solving Model of Torrance is the third component of the District's comprehensive approach to thinking skills programs. This model, utilized primarily with gifted students, is a highly-disciplined approach which enables these children to use complex investigative procedures involving the application of higher-order cognitive



behaviors. In addition to providing students with a procedural reference for problem-solving, the major objectives of this program are to improve the quality and originality of ideas in group discussions and increase students' abilities to identify problems, design and evaluate alternatives and use critical references in cogent, syntactical forms of written expression (Iorio & Pizzo 1986). Among the procedures stressed in the application of this model are brainstorming, problem

identification, production and evaluation of alternative solutions. All of these processes are taught to help develop the student's ability to make use of a linear problem-solving process.

In training teachers to implement this model, the District's 19 TAG teachers and six intermediate school teachers were given professional development in the model followed-up by work with a trainer who had extensive experience in the program. In addition, an after-school in-

service course was offered in Future Problem Solving with special attention paid to developing activities for teams entered in the Future Problem Solving contest, a statewide competition held at Katonah, New York. Five-hundred ninety students are presently involved in the program.

TACTICS FOR THINKING

The final component of District 24's Comprehensive Critical Thinking Skills Program involves students in grades 6, 7, and 8 at six intermediate schools. When it became increasingly apparent that it was necessary to systematize the thinking skills program begun at the elementary school level in the intermediate schools, the District responded in the following manner.

Firstly, a committee composed of District office specialists gathered data on the range and types of thinking skills programs appropriate for students at the middle school level. Next, these programs were winnowed down to three and a standing District-wide committee was formed consisting of the superintendent, District office curriculum and instructional specialists and representative administrators and teachers from each of the targeted six intermediate schools. This brought the total committee membership to 15.

Representatives from three major thinking skills programs under consideration were invited to present their programs to the committee or to send explanatory videotapes and literature. After the committee reviewed all the information presented, *Tactics for Thinking* was selected as the thinking skills program most appropriate for implementation in the intermediate schools.

The next step involved the type of training needed to begin implementation of the program. The program's developer, Dr. Robert Marzano, was contacted and agreed to conduct the initial stage of awareness training for the program in New York City. After several meetings, the committee then decided that three schools would pilot the project and attempt to infuse *Tactics for Thinking* into four content areas, language arts, mathematics, science and social studies. One teacher from each content area on each of the three grade levels was selected on a voluntary basis to

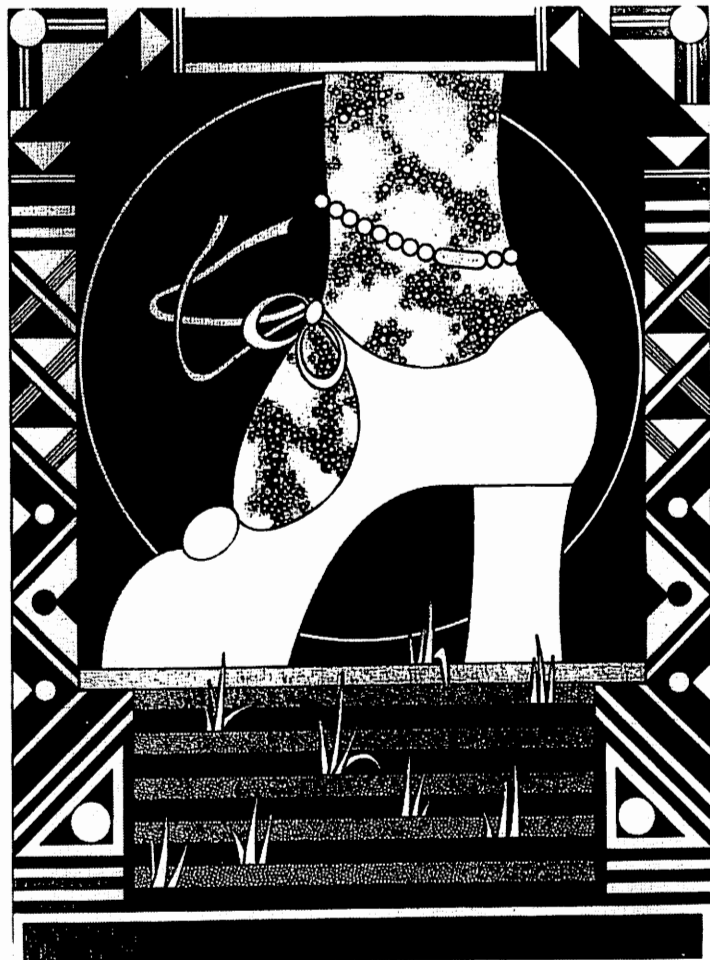
attend the training along with one administrator who would serve as the project's site coordinator. The two-day training would be conducted by Dr. Marzano in May, 1989 to allow the teachers to put the program into operation for the 1989-1990 school year. At this training, the teachers received materials developed by Dr. Marzano to assist their basic understanding of the program as well as acquainting them with its underlying philosophical and theoretical underpinnings.

Following this training, teacher response was so positive that many of them put the program into operation immediately, crafting lessons that revolved around many of the 22 tactics for thinking in the program. Questionnaires distributed to workshop participants to follow up the process indicated a great excitement about the program and, because of this, it was decided that teachers from the remaining three intermediate schools receive training the following September before the start of the 1989-1990 school year.

In early September, 1989, before the opening of the school year, Dr. Marzano was invited back to the District to deliver awareness training to teachers and administrators from these three schools. Again, each teacher received a training manual as well as other supplementary materials illustrating the infusion of *Tactics for Thinking* into traditional subject areas. Initial response was, again, very positive and teachers embarked on the program at the beginning of the school year. Formative evaluation in the form of follow-up visits, interviews and questionnaires indicated that the program is operating successfully in a large part of the targeted subject areas. Presently, 72 intermediate school teachers are instructing nearly 4200 students in the program. In addition, all 19 TAG teachers and nine of the District's staff developers were instructed in the program to broaden their base of knowledge of thinking skills strategies. Plans are being formulated to train all intermediate school teachers in *Tactics for Thinking* during the next two years.

SUMMARY

District 24 in New York has had in place a comprehensive thinking skills program for nearly ten years. Over 12,000 of



our children are involved with one or more thinking skills programs. By recognizing a need for such a program and making its implementation a high priority in its overall goals and objectives, the District has worked to ensure its students a solid grounding in the skills of higher order thinking. It is hoped that this foundation will meet the diverse needs of the students and assist them in becoming more productive members of society. As Paul (1985:158) writes:

... Children can be raised to value the authority of their own reasoning capacities. They can be taught comprehensive principles of rational thought. They can learn to consider it natural that people differ in their points of view. And they learn to grasp this not as a quaint peculiarity of people but as a tool for learning. They can learn how to learn from others, even from their objections, contrary perceptions, and differing ways of thinking.

When placed in the context of teacher usefulness, training in these programs provides opportunities to revitalize and energize teaching styles as well as instruc-

tional arsenals. By training teachers to implement these programs with "state-of-the-art" staff development techniques, teaching approaches remain both fresh and informed. Offering these programs to teachers at all stages of their careers recognizes the evolutionary nature of the profession and respects their needs and desires for continued self-improvement and actualization.

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Reflections

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

So much for philosophy for children!

Education seems to me two quite distinct enterprises: lower education is mostly a matter of socialization, of trying to inculcate a sense of citizenship, and higher education is mostly a matter of individuation, of trying to awaken the individual's imagination in the hope that she will become able to re-create herself. I am not sure that philosophy can do much for any of these enterprises.

—Richard Rorty, "The dangers of over-philosophication," in *Educational Theory*, Winter, 1990.

The story-telling animal

A central thesis then begins to emerge: man is in his actions and practice, as well as his fictions, essentially a story-telling animal. He is not essentially, but becomes through his history, a teller of stories that aspire to truth. But the key question for men is not about their authorship; I can only answer the question, 'What am I to do?' if I can answer the prior question, 'Of what story or stories do I find myself a part?' We enter human society, that is, with one or more imputed characters—roles into which we have been drafted—and we have to learn what they are in order to be able to understand how others respond to us and how our responses are apt to be construed. It is through hearing stories about wicked stepmothers, lost children, good but misguided kings, wolves that suckle twin boys, youngest sons who receive no inheritance but must make their own way in the world and eldest sons who waste their inheritance on riotous living and go into exile to live with the swine, that children learn or mislearn both what a child and what a parent is, what the cast of characters may be in the drama into which they have been born and what the ways of the world are. Deprive children of stories and you leave them unscripted,

anxious stutters in their actions as in their words. Hence there is no way to give us an understanding of any society, including our own, except through the stock of stories which constitute its initial dramatic resources. Mythology, in its original sense, is at the heart of things. Vico was right and so was Joyce. And so too of course is that moral tradition from heroic society to its medieval heirs according to which the telling of stories has a key part in educating us into the virtues.

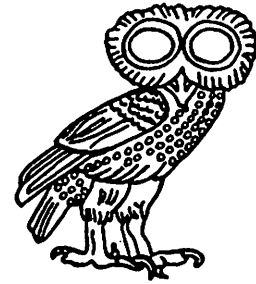
—Alasdair MacIntyre, in *After Virtue*, p. 201.

J.L. Austin and the Community of Inquiry

Magee: Didn't [Austin] take the highly unusual view that philosophy could be perhaps even thought to be a group activity?

Warnock: Yes, he said this from time to time and I'm quite sure meant it very seriously. This connects, I think, with his belief that the only serious aim in philosophy ought to be to get things really settled; and he very much wanted to get away from the idea that philosophy was in any way a kind of literary pursuit in which the individual operates strictly as an individual performer—he thought that to see philosophy in that way was to import, into what ought to be in a sense a scientific subject, essentially literary values which he thought quite out of place and disastrous. Yes, he would have liked to try out the idea of a team of persons working in an organized way on small points—though perhaps, collectively, on a large problem—combining their results, criticizing each other's work, and really coming up with some agreed, solid conclusions at the end.

Magee: Can you give an example of the kind of thing such a group might be doing?



Warnock: Well, I think he thought of it as, partly, just a matter of getting the benefits of mutual criticism and suggestions in advance of producing your work rather than afterwards, which seems to be the more usual style. But also I think he had in mind the way in which, for some purposes, the natural sciences operate; he would have liked large problems to be broken down into limited areas, and these, so to speak, farmed out in an organized way to individual operators. For example, there were his so-called "Saturday mornings," weekly meetings held in Oxford during term under Austin's chairmanship (to put it over-formally); here, at an early stage, the notion of a *rule* came under consideration, a notion which figures importantly in all sorts of fields—mathematics for instance and philosophy of language, and of course ethics as well—in all these fields philosophers talk a lot about rules. Well, on that occasion Austin decided, characteristically enough, that they'd better look at actual rules in some detail; he divided out among those present particular kinds of rules—rules of bridge, rules of cricket, rules of evidence, that kind of thing—and gave a particular field to each person to study in detail, and then see what they came up with. It was a kind—one kind—of scientific ideal that he had, I think; you divide a big problem into limited tasks, and assign a group or team of people to work on them in a systematic way.

—from Bryan Magee, "Conversation with Geoffrey Warnock," in *Modern British Philosophy*.

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Misuse Of Inference —OR— Why Sherlock Holmes Is A Fake

Max M. Thomas

The great Sherlock Holmes is used in at least two critical thinking textbooks as “the master of inference.” In both cases, the authors draw upon Holmesian examples of inference to define “inference” as a conclusion drawn from facts. Both authors, however, fail to follow their own definition in the examples of inference they provide for the reader. Their failure, I shall argue, comes from the mistaken belief that Holmes understands the nature of inference. As a result, their lessons on inference are misleading. I shall begin by demonstrating how Holmes misunderstands the nature of inference. Turning to Conan Doyle's *A Study In Scarlet*, we find Holmes and Dr. Watson in a conversation with Father Jenson, the local parish priest. Watson is regaling Jenson with tales of Holmes' power of “deduction,” as Holmes calls them. As an example, Watson has singled out a fellow moving about the neighborhood. All observe that he was “a stalwart, plainly dressed individual who was walking slowly down the other side of the street, looking anxiously at the numbers. He had a large blue envelope in his hand, and was evidently the bearer of a message”

All three men also observe that the messenger had “a great blue anchor tattooed on the back of [his] hand He had a military carriage, however, and regulation side whiskers He was a man with some amount of self-importance and a certain air of command,” which was seen in “the way in which he held his head and swung his

cane.” He was “a steady, respectable, middle-aged man” Watson begins with his conclusions about the mysterious fellow.

“Notice the anchor tattoo and this fellow's obvious comfort with command,” I said, “I believe he is the captain of a merchant vessel. One of his crew was lost at sea in a tragic accident, which explains his anxiously looking for the correct address. The blue envelope contains the lost sailor's last pay which the captain is delivering to the widow.”

“I'm afraid,” said Jenson, “that your so-called deductions are completely incorrect. The anchor smacks of the sea; so you're right on that point, Watson. But this fellow's military carriage and his air of command come not from his habit of commanding ships, nor are the regulation side whiskers accidental. Rather, my guess is that he is a retired sergeant of Marines”

“You are both mistaken,” laughed Holmes. “Jenson, you have no reason to conclude that the fellow is either a marine, a sergeant nor retired. None of the evidence allows you these deductions. More than military men have anchors tattooed on their hands. More men than mere sergeants have developed an air of command and wear regulation side-whiskers. And, lastly, you have no reason to believe that this fellow is retired.”

“Indeed, Jenson, a religious man such as yourself should have realized that the anchor need not have anything to do with the sea. You know that it is an old symbol used by the early Christians to

identify themselves. It implied that their faith was securely ‘anchored’ in God. The symbol is said to have originated with Saint Paul and is clearly tied to the early Pope Clement. The tale, I believe, is that Clement was tied to an anchor and drown! Thus, clearly, that fellow has some deep-seated religious convictions and his mission has something to do with his faith.”

“He is a man of God, who has taken an oath of poverty, which explains his plain dress. Secondly, his looking anxiously at addresses indicates the importance of his Christian mission. His so-called military carriage and air of command is not uncommon for religious leaders who command, not men, but their souls. You are both wrong, gentlemen, this fellow is a man with religion on his mind, not the sea”

Finally, the mysterious fellow approached our door. “This,” I thought, “is my chance to show Jenson Holmes' brilliance.” I asked him, “what occupation brings you to our door?”

“I am from the Faith Chapel,” he replied, “looking for the residence of a Mrs. Wilson. ”I want to speak with her about the message of the Gospel. Do you know her?”

Jenson sat wide-eyed, taken off-guard by Holmes' magnificent deduction. Holmes had surely out done himself this time.

At this point, I must confess to the reader that most of the above is a fiction I have invented to demonstrate an important point about Holmes, the reputed

master of inference. In Conan Doyle's version, it is Holmes who thinks that the stranger is a retired sergeant of the Marines. There is no Father Jenson and Watson does not make a guess in the real story. My point is to show that any one

misused. Marlys Mayfield, in *Thinking for Yourself: Developing Critical Thinking Skills Through Writing*² uses Holmes as an example of one "skillful" in the use of inference. Armed with the Holmes paradigm of inferential thinking,

person is alert to check each inference against available evidence, while the unconscious person sinks deeper into illusion at each step.³ Then she provides the following bad example. In this example Mayfield intends to show us how inferences should be drawn from facts or premises.

Facts:

1. I see my neighbor sitting on the front steps of his house. It is Monday morning.
2. He usually is at work at this time.

Chain of Inferences:

1. Either he is sick or on vacation or he's lost his job.
2. In any case, I don't think he'd mind talking to me⁴

But Mayfield doesn't tell us why she excludes other equally plausible inferences similar to the first. From the facts, and with her lessons drawn from the example of reasonable inference, I can just as easily conclude (a) that the neighbor has sold the business, (b) that he retired the previous Friday, (c) that he is home watching his sick children, or (d) that he's forgotten today is Monday. If Mayfield believes any of my inferences are unreasonable, she gives no reason for our thinking so.

Moreover, her second 'inference,' "I don't think he'd mind talking to me," in no way follows from the given facts. Indeed, Mayfield gives us no reason to discount the "inference" that if the neighbor has lost his job or if he is ill, he does mind our asking him about his missing work. My criticism is that Mayfield's 'inferences' are really just unsupported guesses, which have little value in critical thinking. (My own students, for example, have no problem drawing guesses from facts. They do, however, have great problems distinguishing reasonable from unreasonable inferences.) Unfortunately, Mayfield is not alone in her belief that Holmesian 'inferences' have something important to teach us about critical or logical inferences.

John Chaffee makes the same error. Quoting again from *A Study in Scarlet*, Chaffee asks us to consider another example from "one of the masters of inference."⁵ This example comes from the first meeting between Holmes and Wat-



of the three "inferences" is equally plausible.

Conan Doyle is the true master as he convinces generations of readers that Holmes can really deduce truth from the facts he is given. In truth, no one could make inferences from the facts because Holmes has no basis for judging reasonable and unreasonable inferences. Any one of a number of such "inferences" is equally plausible. In short, Holmes is not a "master of inference." Rather, Conan Doyle is "the master of making us think Holmes is the master of inference."

Though an elementary point about Sherlock Holmes, I raise it to demonstrate how "inference" is so easily

Mayfield develops a thesis about inference which is self-contradictory and wholly misleading to unwary readers.

"Inference," used in the discipline of critical thinking must advance one's knowledge or understanding of an issue. Typically, a reasonable or correct inference is defined as the logical connection between premises and conclusion in which the conclusion is true only if the premises are true.⁶ Mayfield speaks of "reasonable" inferences and warns that "The facts [premises] support the inferences drawn, or provide reasonable evidence for them..."⁴ These criteria are not met in Mayfield's examples of reasonable inferences.

Mayfield cautions that "the conscious

son where Holmes later says "I *knew* you came from Afghanistan." Let's examine Holmes' chain of inferences and the facts which should ground them.

"Here is a gentleman of a medical type, but with the air of a military man. Clearly an army doctor, then." We're never told what fact led Holmes to infer that Watson is a "medical type . . . with the air of a military man." From these conclusions Holmes infers that Watson is an army doctor; not a great stretch, though Holmes doesn't tell us why Watson could not have been a Navy doctor. Holmes reasonably concludes, from observing Watson's tan, that he comes

about reasonable arguments.

Chaffee declares that "arguments are inferences"⁸ without realizing that his flawed lesson on inference is bound to produce flawed arguments. Look at one of Chaffee's examples of a good inference found in the following argument:

Reason: Chewing tobacco can lead to cancer of the mouth and throat.

Reason: Boys sometimes are led to begin chewing tobacco by ads for the product that feature sports heroes they admire.

Conclusion: Therefore, ads for chewing tobacco should be banned.⁹

ing that the premise, "boys cannot identify health hazards," is tacitly understood. Still, both stated and tacit premises allow only the conclusion that sports heroes should not be used to advertise chewing tobacco.)

Both Mayfield and Chaffee believe that a good inference is supported by the facts, but this criterion is no more successful when they apply it to examples of everyday reasoning that is Sherlock Holmes', as I've attempted to show. A solution, then, might suggest that a reasonable inference produces a specific and definite conclusion. An unreasonable inference produces unspecific and



from the tropics. But then Holmes unreasonably infers that Watson's holding his arm "in a stiff and unnatural manner" must mean a battle wound, somehow ruling out disease, natural accidents or a congenital defect. From the evidence we could as easily infer that Watson fell off a horse (injuring his arm) because of a malaria attack while vacationing in Panama. Conan Doyle succeeds in entertaining us with Holmes' powers of "deduction," but he, like Mayfield and Chaffee, provides no lessons for teaching us the difference between reasonable and unreasonable. Not surprisingly, these misunderstandings of inference lead to misunderstandings

But nothing in the "reasons" supports the conclusion. We can just as easily "infer" with equal plausibility (a) that boys have a greater tendency to get cancer of the mouth and throat than other people, (b) that boys should not take seriously things said by sports heroes, (c) that boys should not have sports heroes, or even (d) that boys should smoke cigarettes to avoid mouth and throat cancer caused by chewing tobacco. *But Chaffee gives us no rules for deciding exactly which of these conclusions is the correct inference.*

(Of course, tacit premises are an important part of everyday reasoning. Chaffee might defend his example by argu-

indefinite conclusions, such that one cannot be certain which conclusion may be legitimately inferred from the facts or premises.

Modal logic provides a clear way out of the difficulties of the Holmesian approach to inference. Modal logic reduces the risk of inferring conclusions which are not fully based on reasons (premises) by defining inference and its counterpart, implication,¹⁰ as an instance where there is no possible world where the premises are true and the conclusion is false.¹¹ The following example will demonstrate this definition of inference.

You've asked Sally out to dinner for the last three Friday nights and she has

turned down your invitation each time. You think, "I can infer, from her turning me down three times in a row, that she doesn't like me." The inference is unreasonable because there is a possible world (or circumstance) in which the premise is true and the conclusion is false.

Notice that from the fact that Sally has turned down your invitation we could guess that she's very busy, she's married, she's homosexual, she doesn't eat on Fridays, she suspects you couldn't find a decent restaurant if your life depended on it, *as well as* the possibility that she doesn't like you. Suppose you decide to ask Sally why she has turned you down, each of these outcomes is equally possible, as shown in the possible worlds thinking. There is a possible world in which Sally says,

"I'd love to have dinner with you, but I'm too busy for the next two months. Call me after that time."

OR

"I'd love to have dinner with you. Do you mind if my husband joins us?"

OR

"I'd love to have dinner with you. Do you mind if I choose the restaurant?"

Since each of these conclusions is equally possible, and the conclusion that Sally doesn't like you is equally possible with each of these conclusions, we know that none of them is inferred from the premise. In each case, there is a circumstance in which the premise is true and the conclusion is false. If we stick to the fact, "Sally has turned down your invitation three times in a row," all we can reasonably infer is that, "Sally has turned down your invitation three times in a row."

Critical thinkers must recognize inference as a logical connection, so that mere guesswork doesn't replace critical thinking in our quest for knowledge. (By now you may have recognized many faulty inferences you made in the story above. You may have thought that the "you" in the story is male and that "you" are looking to Sally for a romantic evening. But neither of these inferences is

necessarily correct. There is no reason to think that the "you" is male, since "you" could be a female looking for feminine companionship. The dinner invitation could be to make a business deal or any of a variety of possibilities. The warning is clear: the implications we infer must follow the rule of implication lest our conclusions be overly foolish.)

The misuse of inference, found in Mayfield and Chaffee's accounts, often leads to extremely unreasonable conclusions found in popular everyday arguments. Such errors can be rectified by using the modal model of inference. One of my favorite examples is found in the cosmological argument for the existence of God.

The argument assumes that everything must have a cause. We correctly infer that the universe must have a cause. We also conclude that the cause of the universe must be God. (Essentially, God is defined as the cause of the universe.) But an unreasonable inference is made by those who declare that the argument proves that Christ died for our sins.

An inference is made from the fact that God created the universe to the implied conclusion that Christ died for your sins. But the argument contains nothing in it by which we could reasonably infer that Christ died for our sins. In fact, a close look at the argument shows exactly what we can infer from it.

Notice that all we know is that God created the universe: He caused it to exist. But we do not know, from the argument, that God continued existing after He created the universe. Nothing in the argument implies that God exists today; only that He did exist long ago to create the universe. Further investigation into the concept of a cause proves that the cosmological argument implies that God does not exist today.

A cause produces an effect. Once the cause has produced its effect, it is no longer a cause. I am the cause of my child's existence and, strictly speaking, once she began existing, I was no longer a cause. My job of causing ceased once the effect occurred. The same principle affects God and His creation of the universe.

God was the cause of the universe. Once the universe came into existence,

the cause ceased to exist. Therefore, according to the cosmological argument, God who is known only as a cause, ceased to exist the moment the universe began existing. It does no good to argue that what an autonomous person who once had the job of causing the universe, because God's autonomy cannot be inferred from the cosmological argument. The argument permits us only to infer that there was, at one time, a cause. Our knowledge of causes permits us to infer that once they've completed their effect, they no longer exist as causes.

Perhaps from this final argument you can see why inference must follow the rule of implication. If it didn't, then anyone could reasonably infer anything about God that he or she wished. Examples of such willy-nilly inferences include: God caused the universe and became a wicked fellow dedicated to the pain of mankind; God created the universe, fell asleep and no one has been able to awaken Him since; God created the universe and turned himself into a unicorn.

No one needs to imagine a possible world to understand the consequence of inference without the rules of logic distinguishing reasonable and unreasonable inferring. One needs only to read the adventures of Sherlock Holmes.

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Teaching Workplace Ethics

By Michael Davis

This paper has four parts. Part One briefly introduces the paper's subject by explaining how the paper came to be. Part Two analyzes five misconceptions ("the Five Fears") that can get in the way of teaching workplace ethics. Part Three applies the insights gained in Part Two to a specific classroom situation. Part Four consists of four sample problems suitable for the classroom.

Though the focus of this paper is teaching *workplace* ethics, much of the analysis should apply to teaching ethics of any sort. One way to read this paper, then, is as another paper *about* teaching ethics. But I hope it will sustain another reading as well. I offer it as an example of how philosophers can make themselves useful to teachers.

PART ONE: INTRODUCTION

About three years ago, the Fel-Pro/Mecklenburg Foundation of Chicago and the Center for the Study of Ethics in the Professions, Illinois Institute of Technology (IIT), agreed that something needed to be done about teaching ethics in the workplace. Though IIT does not have a school of education, Fel-Pro did not err in thinking we knew something about workplace ethics. We had been teaching professional ethics since 1976

(as well as developing teaching materials for courses in the ethics of various professions). The profession we know best is engineering. Since most engineers work for ordinary businesses rather than for themselves or other engineers, teaching engineering ethics seemed a good start on teaching workplace ethics generally. That, as it turned out, was not nearly as true as it seemed. But it was true enough to keep us going.

Once our center agreed to do something about workplace ethics, we did a literature search. The search turned up a lot on "value clarification" and "values education", a little on teaching ethics or morality (mostly quite abstract); but virtually nothing on teaching workplace ethics. The number and variety of education journals made the scarcity of literature on our subject seem ominous.

Because we found almost nothing published on teaching workplace ethics, we decided to approach the subject as we had other areas in which we knew little and could find little in the literature. We decided to ask those who must know more about the subject than we did, the practitioners. We decided to talk to vocational teachers.

My colleague, Fay Sawyer, and I then went about Chicago public schools interviewing vocational teachers, co-op coordinators, and vocational education administrators. Our original purpose was to collect problems of workplace ethics students brought up in class. Such problems are the natural raw material for teaching applied ethics. Once we had a substantial collection of such problems, we could, we felt sure, figure out what the central problems were and how they might be handled. We would be well on our way to writing a text or preparing other useful teaching materials.

Our attempt to collect problems was not as successful as we had hoped. But the attempt led to two discoveries. One discovery was that vocational teachers seemed both interested in workplace ethics and well equipped to teach in the subject. This seemed odd given our other discovery: almost none of those we interviewed felt comfortable teaching ethics. Some said so frankly. Some said teaching ethics was unnecessary or hopeless. Some thought themselves unfit to teach the subject. ("I know a little about philosophy of education, but nothing about ethics.") Some lectured us on the importance of teaching ethics, sprinkling the lecture

with references to Aristotle, Thomas Aquinas, and Kant, to utilitarianism and deontology, to pragmatism and existentialism. One showed us the two brief paragraphs in the text he used in which ethics was mentioned.³ But only a few could remember an ethics problem coming up in class. Of these, very few were happy with what they did with it.

I must admit that at first I didn't know what to make of these discoveries. In time, I began to notice certain patterns in what my interviewees said. Eventually, I identified five concepts, attitudes, beliefs, or blocks—what I now call “The Five Fears”—that seemed to disable otherwise qualified teachers from teaching a subject about which they knew a great deal. The Five Fears are: (1) the fear of not being value neutral, (2) the fear of subjectivism, (3) the fear of relativism, (4) the fear of impotence, and (5) the fear of shades of gray.

All these fears are ultimately philosophical. Their power to disable comes from beliefs ordinary evidence alone cannot refute, from beliefs that can be refuted only by understanding better the concepts involved. The Five Fears can only disable those lacking an adequate concept of workplace ethics. Because the Five Fears are ultimately philosophical, a philosopher like myself is an altogether reasonable candidate to help dispose of them.

PART TWO: THE FIVE FEARS

Can things really be that simple? Perhaps not. But “you” (that is, anyone who wants to teach workplace ethics) are the ones to answer that question. My approach will be to describe each fear, explain why it might disable a teacher in the classroom, and then explain why it should not interfere with teaching workplace ethics.

1. Value Neutrality

One thing that can stop a teacher from trying to teach workplace ethics is the fear of not being “value neutral.” This is a fear every well-trained teacher brings to the classroom. “I am,” he says, “not supposed to impose my values on my students.” Because people often—but mistakenly—equate teaching ethics with teaching values generally, this first fear naturally seems to stand in the way of teaching ethics. Why should it not?



The answer is that teachers cannot, as teachers, be value neutral; nor should anyone want them to be. Every time you grade an exam, correct a student's mistake, or send a student down to the principal's office for discipline, you are not value neutral. You are showing that you value the right over the wrong, the good over the bad. Indeed, though schools are often criticized for not teaching the difference between right and wrong anymore, I have yet to find a school that fits that description. Teaching the difference between right and wrong is what schools spend most of their time doing.

So, the value neutrality teachers are supposed to exhibit in the classroom can-

not be neutrality with respect to *all* values. If some sort of value neutrality is a good thing in teachers (and I think it is), the neutrality must be with respect to *certain* values, for example, with respect to various religious or political values, *not* neutrality with respect to values as such. What then is the difference between those values with respect to which teachers (in the classroom) should be neutral and those with respect to which they should not be neutral?

Let us define right and wrong in this way: *The right consists of those acts, words, or practices that, all things considered, satisfy the appropriate standard.* The wrong consists of those that do not. So, for example, “4” is the right answer to the question, “How much is $2 + 2$?” because $2 + 2$ is 4 according to the appropriate standard, the principles of arithmetic. So, too, the right answer to the question, “Can an employer legally discriminate against someone because of race?” “No.” Why? Because the appropriate standard of legality is the law and the law says she cannot.

These two examples have one thing in common that most religious or political standards would not share. In both, the standard of right and wrong is not itself in dispute. Whether I am Muslim or Jewish, Republican or Socialist, I will accept the principles of arithmetic as the standard for doing sums and the law as the standard for what is legal. The neutrality we expect of teachers thus seems to be a neutrality with respect to values *competing* in *their* community, not with respect to values about which there is no dispute. If ethical standards are as uncontroversial a guide to conduct as arithmetic is to correct addition, then a teacher can teach ethics and still be value neutral in the appropriate sense, that is, neutral with respect to *competing* values.

2. Subjectivism

Here the second fear enters the classroom, the fear of subjectivism. “How,” it asks, “can ethics be as uncontroversial as arithmetic or law? Isn’t ethics just a matter of how you feel about things?” What makes this second fear so chilling is that it rests on an obvious truth. Ethics is in part a matter of feeling. How, for example, could we believe stealing is unethical without having negative feelings about stealing? Luckily, we need not deny this obvious truth to teach ethics. We need only deny that ethics is “*just* a matter of feeling”.

This, I think, is the place to define ethics. I have found the following definition useful: *Ethics consists of those standards of conduct that, all things considered, every member of a particular group wants every other to follow even if their following them would mean he too has to follow them.* Acting ethically is acting according to the appropriate ethical standard.

This definition makes ethics (in part) a matter of feeling. What our ethics are will depend in part on what we *want*. But that is not all our ethics will depend on. The definition also makes our ethics depend on what *everyone else* (in the group) also wants. The question I am to consider when deciding what it would be ethical to do is not what I happen to feel toward a certain act but whether the act is right according to a standard everyone, myself included, wants everyone else in the group to follow.

If all this sounds familiar, that is not surprising. New inventions or discoveries are rare in a field as old as ethics. The definition I am suggesting is little more than a restatement of the Golden Rule. The fundamental idea is certainly the same: we are to figure out what we should do by treating what other people want as equal to what we want. The difference between this definition and the Golden Rule, though small, may nonetheless make a big difference in teaching. The Golden Rule focuses attention on two-person relations. You are told to put yourself in *the* other person’s place. The definition offered here focuses attention on the *social* practice, on what we want *everyone* else (in the group) to do even if it means doing the same ourselves. The definition reminds us not to forget third

parties, the big picture, how our acts might appear to others, and similar matters the Golden Rule allows us to forget all too easily. We are led to think of ethics as an inherently social enterprise.

3. Relativism

This said, it may seem that I have quieted the second fear only to rouse a third, the fear of relativism. “With so many different groups in a society like ours,” this new fear asks, “how could more than a few of us agree on anything like a standard of conduct?” Have I explained what ethics is at the cost of making it impractical? I think not.

Consider some facts so obvious they generally go unnoticed. While we *are* different and *disagree* about *much*, we do not disagree about *everything*. For example, we seem to agree that arithmetic provides the standard for doing sums—even if we sometimes do not do our sums that way, whether by mistake or design. More relevant here is that we also seem to agree about certain rules of conduct. For example, the rule against murder seems to be the common property of everyone—or at least of those not plainly too young, too feeble-minded, or too ill mentally to count as rational.

We might call these universal ethical standards *morality*, saving the word “ethics” for those (morally-permitted) standards that apply *only* to particular groups. Morality applies to “everyone”; but Catholic ethics applies only to Catholics, business ethics only to those engaged in business, legal ethics only to lawyers, and so on.⁴ Membership in an ethical group is not arbitrary. An ethical group is defined by the practice everyone in the group wants everyone else to follow. Insofar as people are rational, they will want to include in the practice in question everyone whose participation will be beneficial. Something similar explains the special status of moral rules.

Why is there so much agreement about moral rules? Consider the moral rule, “Don’t kill.”⁵ Why does everyone want everyone else to follow it? One important argument for the rule is this: Each of us would be safer if everyone else abstained from killing. That safety has its *costs*, of course. If I follow the rule, “Don’t kill,” I can’t kill you just because I would

benefit from so doing. We are, however, generally willing to give up the opportunity because we are generally more worried about being killed than we are about carrying out plans that involve killing others.

I said “generally”. This suggests that moral rules have exceptions. We must admit that much. We need not panic—so long as the exceptions are as open to the same analysis as the general rules themselves. I think they are. For example, one exception to “Don’t kill” is certainly “self-defense”. Why? Well, if we did not allow people to defend themselves against attackers who sought to violate the rule against killing, the moral among us would be in more danger with a rule against killing than without it. Morality would not be a rational practice. On the other hand, with the exception, we are even safer than without the rule. Potential attackers have a reason to abstain from attacking that they would not have if self-defense were not an exception to “Don’t kill” or if there were no prohibition of killing. Potential attackers must take into account the possibility that even a perfectly moral victim will defend herself.

You have probably noticed that this argument appeals only to reasons of self-interest. No doubt self-interest has much to do with the universal appeal of “Don’t kill” and certain of its exceptions. But there are less-universal reasons for the rule as well. For example, some people might want the rule in part at least because their religion or culture has such a rule. Such differences in reasons are consistent with agreement on the same standard of conduct. Moral standards are neutral between such competing values.

I have, I hope, now convinced you that morality, a universal ethics, is at least possible. If so, you should be convinced that ethics in the narrow sense is *possible* too. But you may still wonder whether workplace ethics—in any interesting sense—is more than a mere possibility *here*. How much agreement could there be on ethics in a place as diverse as, say, Chicago? Though this question is all that’s left of the fear of relativism, it is probably enough to disable most teachers. Here, I think, social scientists have something useful to tell us. I will

give two examples.

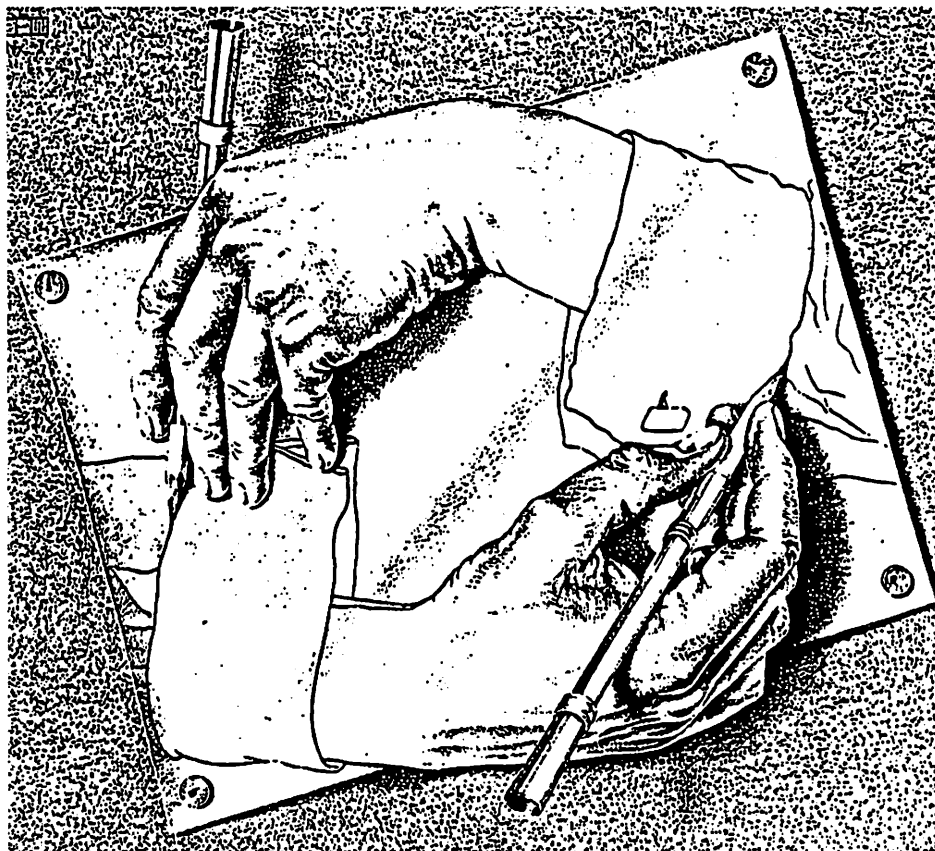
The first concerns ideas about justice. Tom Tyler, a social psychologist at Northwestern University, has been conducting surveys in Chicago trying to compare the attitudes towards justice of various groups. He has found no significant differences on such questions as whether a judge should be impartial or a police officer should take a bribe. Adult Chicagoans of all classes, races, and ages seem to have a common conception of justice.⁶ His findings are consistent with similar research done elsewhere.⁷

My other example of what social scientists have to tell us comes from a field in which I have a special interest, punishment. Over the last twenty years, researchers have conducted major surveys in the United States, Canada, and Western Europe asking people to rank crimes according to seriousness. They report some differences between social groups. For example, the poor tend to rank property crimes somewhat lower than the middle-classes do. But such differences are small. For example, no economic, racial, or age group considers bank robbery a minor offense or petty theft a major one.⁸

The conclusion I draw from such empirical evidence is that, *as a matter of fact*, the differences among your students on *basic* ethical questions is probably not worth worrying about. There will be some ethical disagreements, no doubt, for example, concerning whether using cocaine is morally wrong. The empirical evidence I have pointed to does not rule out such disagreements. What it does is undercut the inference from the fact of such disagreements to the conclusion that we can agree on little of importance. Our disagreements seem better explained by incomplete information, different experiences, and the like than by differences in basic moral principles. You need not fear relativism.

4. Can Ethics be Taught in High School?

We have now reached the fourth fear, perhaps the most incapacitating, the fear of impotence. "How," it asks, "can a high school teacher hope to teach near adults what they should have learned on their mother's or father's knee? If they don't know right from wrong already, what can I do?"



What makes this fear so incapacitating is that you *cannot* hope to teach near adults what they had ample opportunity to learn long ago. If teaching workplace ethics really were teaching students what parents have already tried to teach for many years, teaching workplace ethics would be either unnecessary (since the students would already know what was being taught) or hopeless (since students so stupid as not to learn the basics after years of being taught them at home are probably not going to pick them up in one class).

How can we dispose of this fourth fear? One way might be to point out that moral development is a continuing process. At a certain age, a child may only be able to absorb arguments that refer to what parents, teachers, or others in authority say or will do. Later, the child will find other arguments convincing as well, first those that refer to what the groups he belongs to believe and then those that refer to universal rationally-defensible principles. Hence, parents can

only do so much at an early age.

While the theory of moral development is an important contribution to our understanding of moral education generally, it cannot, I think, dispose of the fear of impotence. Even allowing for the limits the concept of moral development places on what children can learn and when they can learn it, parents still seem better placed to teach their children ethics than any teacher is. Moral development is primarily a theory of reasons for conduct, not of what conduct is right or wrong. Parents could therefore teach even young children the rules of workplace ethics—even though they could not teach them as *ethical* rules. Only if teaching workplace ethics is teaching something substantively different from what parents generally teach would there be no reason to fear that teaching workplace ethics is unnecessary or hopeless. Is teaching workplace ethics different? Let's think about right and wrong again.

I have already pointed out that schools spend most of their time teaching the dif-

ference between right and wrong. Yet, teaching the difference between right and wrong is also something that parents do. Are the schools wasting their time? Of course not. Though most children entering kindergarten know the difference between right and wrong in a general way, they certainly do not know all about right or wrong. Indeed, none of us does. So, for example, a child entering kindergarten would normally know the difference between putting his shoes on wrong and putting them on right. But he would have to wait a few years to learn the right answer to $22 + 97$. What is true of right and wrong in arithmetic may be true of right and wrong in workplace ethics too.

What do parents teach their children about ethics? They generally teach them the basics, of course, what we have called morality: Don't kill; keep your promises; don't steal; don't cheat; and so on. They also generally teach them more local rules; for example, the ethics of their family, such as: don't take money out of the cookie jar without leaving a note; or be home for dinner by six. Even those who break such rules will generally know of them and not treat them with indifference. There are exceptions, for example; the so-called sociopaths. Such persons may well be beyond the help a teacher can offer in the classroom. They are, after all, often beyond the help psychologists and social workers can offer. Even a prison may not change them. A teacher can only do so much. We must focus on what teachers can do.

Let's then suppose (what I think is true) that students enter your class reasonably well informed about morality and about the ethics of their family, neighborhood, religion, and school. And let's suppose as well (what I also think is true) that most of your students mean well. They don't want to kill, break promises, steal, cheat or otherwise do anything they regard as wrong. What's left for you to teach them? The answer is: plenty.

A business is not a family, neighborhood, church, or school. Though businesses differ much among themselves, they are generally less personal than a family, neighborhood, church, or school, less interested in the individual, and

more committed to an outcome to which the individual has only an instrumental connection. Businesses are, in short, organized around "the bottom line" in a way few other institutions are. Anyone not raised in a business environment is likely to underestimate the difference between business and the institutions they are familiar with. They are certainly unlikely to know in advance the particular standards governing conduct in a workplace. For example, how can a student guess that promptness would be more important in the workplace than in his family, neighborhood, church, or school? The workplace is a new environment with new standards of conduct.

So, teaching about the workplace, especially teaching a vocational course in how to get and keep a job, is necessarily teaching right and wrong of a sort most students will find useful. Is teaching such things also necessarily teaching workplace ethics? The answer, I think, is no. This may seem odd, given what I have already said. But, in fact, it is not at all odd—and understanding why is important for understanding how to teach workplace ethics. There are at least three ways to teach right and wrong in the workplace: the way of prudence, the way of morality, and the way of ethics. Only the last two teach ethics. Let me explain.

The first way to teach right and wrong in the workplace is the way of prudence (or self-interest). You explain right and wrong in terms of what the boss wants and what he will do if one does not do it. You might, for example, explain why an employee should be prompt in this way: "If you don't want to get fired, arrive on time."

The second way to teach right and wrong in the workplace is the way of morality. You explain right and wrong in terms of a moral rule. For example, you might say, "You should arrive on time because taking the job is an implicit promise to be prompt and you don't want to break a promise, do you?"

The third way to teach right and wrong in the workplace is the way of ethics (in the narrow sense). You explain right and wrong as determined by standards everyone involved wants everyone else to follow, even if that means having to follow them too. You might, for exam-

ple, tell your students, "You should arrive on time. Other employees depend on you to do so and you depend on them to do the same. You will all be better off if you all arrive on time than if each arrives at his own convenience. Do your share since the others are doing theirs."

You can, I think, easily see that the three ways are different. Each gives a distinct interpretation of right and wrong in the workplace, though only the second and third are ways of teaching ethics in the broad sense. You can also see from this example that the three ways *can* be consistent. Sometimes prudence, morality, and ethics all favor the same act.

You may, however, find the first two, the ways of prudence and morality, more familiar. You may also have realized that the way of ethics is likely to be the hardest to follow. So, for example, the way of prudence required only that you know what the boss wants (and what he can enforce). The way of morality required something more, that you know what is implicit in the employment contract. But the way of ethics required as well that you know a lot about the workplace. Who depends on whom? How much? What would happen if someone did or didn't do this or that?

Once you see how much you must know to teach workplace ethics, even if you rely only on the way of morality, you can see as well how you can teach right and wrong in the workplace without teaching workplace ethics. More important now, you can see why teaching workplace ethics (in the narrow sense) can add something to your students' understanding of the workplace. Teaching workplace ethics stresses relationships among employees rather than the relationship between the employee and boss.

Still, you may wonder whether teaching your students workplace ethics can change their conduct. Here psychologists have something to tell us. Thanks to Lawrence Kohlberg and his successors, we now have substantial empirical evidence that discussing moral problems in a classroom can change the moral judgments students make.⁹ Common sense suggests that conduct should change more or less as moral judgments change.¹⁰ Though I shall soon explain

why that should be so, you should already be able to see that you have no reason to fear impotence.

5. Shades of Gray

So far (it might be thought) I have only shown that you can teach your students *some* workplace ethics. I have not shown that you can teach them much. Problems of workplace ethics (it may seem) are of two kinds: a) the black-and-white problems, the ones for which only a word or two of explanation is enough to get even the least well-informed student to see what he should do; and b) the shades-of-gray problems, the ones likely to make even a philosopher scratch her head. In short, you can only teach your students the workplace ethics they would pick up at work in a few minutes anyway. So, why bother?

Such thoughts can bring on the last fear, the fear of shades of gray. This fear is, I think, founded in the actual experience of teachers. When you look over ethics problems you might discuss, you

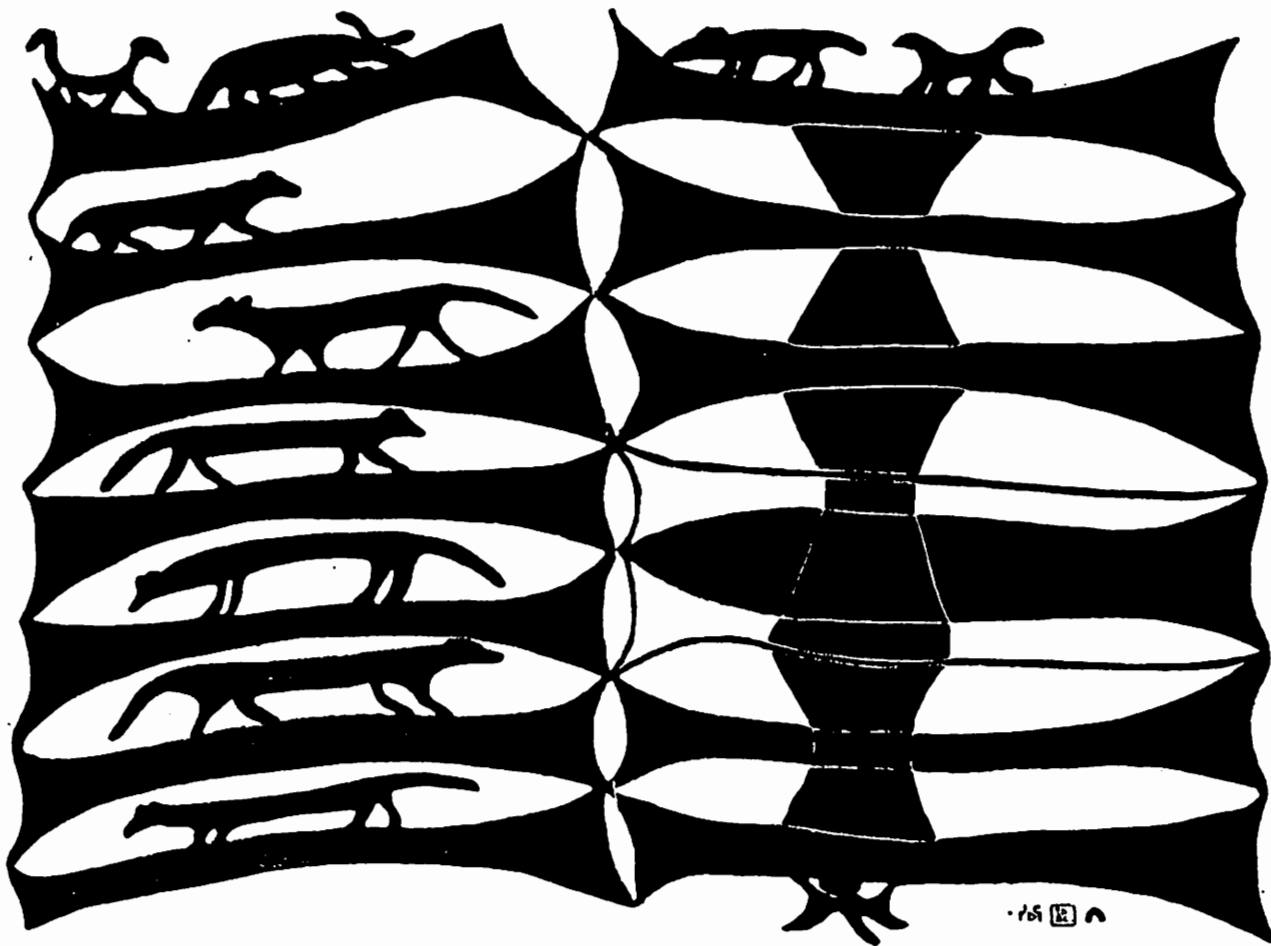
will probably find that they are exactly as described. The answers to most will seem obvious. The rest of the problems will seem to have no consideration at all. Consideration will weigh against consideration, moral rule against moral rule.

While we must recognize this experience, we must not be too quick to draw from it the conclusion that there is not much workplace ethics to teach. The experience is not uncommon elsewhere in teaching. Consider, for example, what geometry looks like to an experienced geometry teacher. Most (if not all) of the problems in her text have solutions obvious to her. She could (as we say) "do them in her sleep." Yet, each year a new generation of students will find them hard—until they get used to thinking in geometric terms, in the terms that have long since become second nature to her.

The same, I think, is true of workplace ethics. What is obvious to an experienced teacher may well take a student a lot of background knowledge and thinking

to see at all. Teachers need not apologize for teaching what they find obvious—so long as experience has taught them that their students do not find it so. My impression from talking to vocational teachers is that their students do indeed find much about workplace ethics hard to grasp.

But what of those problems so hard that even an experienced teacher can only distinguish shades of gray? A few of these problems may in fact be situations in which even the best solution is bad. Human life is not without tragedy. Still, even most of these hard problems will, I believe, eventually yield to the careful deliberation of someone familiar with the actual conditions under which the problem might arise. (Society has a low tolerance for institutions with a tendency to produce tragic choices.) Problems look easy only once we see how to solve them. Until then, they are as dark as caves and as crowded with fears. That is no less true of problems in geometry than of problems in ethics.



PART THREE—PENNY'S CASE

Let us now apply the foregoing analysis to a possible classroom situation: The reading you assigned for today includes a discussion of pilfering. You summed up the text in this way, "Some employees think nothing is wrong with taking little, inexpensive things. But that's pilfering and pilfering is a kind of theft. So, don't do it." As you finish, Penny raises her hand. She is plainly unhappy. Her question makes clear why. "I work at Fat Boy Pizza," she says. "There are always too many Fat Boy pencils around. Even the manager wonders why we get so many. Everybody takes a few home now and then. That's not wrong, is it?"

How should you respond? The simplest way is to appeal to prudence, for example, by pointing out that Penny is technically pilfering and that the manager could use that fact as an excuse for firing her any time he wanted to. "Pilfering," you might say, "is a tactical blunder in the game of keeping your job.

Though that is the simplest way to respond to Penny's question, it may not be the most persuasive. You are asking Penny to think of her manager as an opponent, as someone who might any day decide to fire her and then go looking for an excuse. She might find this characterization of *her* manager unrealistic. Even if she accepts the characterization, she still might conclude *not* that pilfering is wrong but that pilfering doesn't matter. Once a manager wants to get rid of someone (she might reason), he can find an excuse; so, why worry about giving him one?

An appeal to ethics (in the narrow sense) may also seem unlikely to succeed. If everybody really does take home a few pencils now and then and no one at Fat Boy's is inconvenienced, what ethical standard could Penny be violating. If Penny has her facts right, her pilfering should be consistent with all the special standards of conduct her co-workers accept. I will come back to Penny's facts later. But, for now, let's take them at face value.

The Way of Morality

If Penny has her facts right, the way

of morality is the only alternative left to you—apart from silence. But you have already pointed out that pilfering is theft, and Penny's question suggests that she knows theft is morally wrong. What more can you say? What about some question like this?

"Penny, you agree, don't you, that theft is wrong?"

Seeing her nod, you might continue, "And you agree too that taking what does not belong to you is theft?"

Suppose she answers, "Yes, generally." Now you have a problem. The "yes" shows she understands what theft is; the "generally" that she thinks taking Fat Boy pencils belongs to some category of exception. What now?

One approach is to try to *bring the implied exception out into the open*. "Penny," you might say, "are you suggesting that what you're doing isn't really theft, that it's more like taking something given to you, or like picking up something someone else has thrown away?"

Let's suppose Penny answers, "Yes, like picking up something someone else has thrown away." Now all you need to determine is whether what she is doing comes under that exception.

So, you might continue, "Okay, that's plain enough. Now, what makes you think Fat Boy meant to throw away the pencils? Did you check with the manager?" If Penny did check with him and he said she could take a few pencils now and then, she is morally all right (though the manager may have a problem).

But, if (as seems more likely) Penny must admit that she did not check with the manager, you can ask, "Penny, tell me this: would you want a guest in your home taking something of yours without permission just because you left it out where he could get it and he thought you had so much you wouldn't mind?"

Let's suppose Penny agrees she would not want that. Then you might try to bring the discussion to a close with a question like this, "Well, if that's so, Penny, don't you think it would be a good idea to ask the manager's permission before taking any more pencils?"

That might end the discussion. We can easily imagine Penny nodding her head in agreement. But what if, as students sometimes do, Penny resists the argu-

ment? What if she answers your question, "No, I don't see why. What does what I would want guests to do in my home have to do with what I should do in a business?" What do you say now?

You might try getting Penny to explain how her moral status in a business differs from that of a guest in her home. You might, for example, say something like this, "Look, Penny, you must admit that there are *some* similarities. You must admit that your home is no more your guest's home than Fat Boy's is your business. You must also admit that you could have too much of something just as Fat Boy's does. So, don't you owe us an explanation of the *difference* between your home and Fat Boy's that could make what would be theft in your home merely taking what Fat Boy's has thrown away?"

Perhaps Penny would think this last question answers itself. But let's suppose she is still not convinced. Let's suppose she responds, "Well, isn't the difference obvious? A business is a business; a home is not." What should you do now?

You should *not* panic. Penny is simply trying to distinguish between exceptions that apply to businesses and exceptions that apply to homes. There *might* be such a distinction. But just because there *might* be, Penny is not entitled to conclude that there *is*. To show that she is not really pilfering, Penny must show that *everyone* would want (or *at least* would be willing to allow) everyone else to treat taking from a business like Fat Boy's as one thing and taking from a home like Penny's as another.

One heavy-handed way to get Penny to see that she probably cannot show that is the familiar technique of asking her to put herself in the other person's place. "Penny," you might say, "I can see why *you* would want to have your things at home treated differently from the way things in a business are treated. You don't own a business. But what if you did? Would you still be willing to let business property be up for grabs? Look at it from Fat Boy's point of view."

Let's suppose Penny agrees that if she owned a business she would want her business property respected in much the way she now wants her property at home respected. You could then try to con-

clude with the rhetorical question, "So, don't you agree that the right thing to do is to treat Fat Boy's property with the same respect you would want a guest to treat yours?"

2. Why Morality Can be Taught This Way

We can, I think, still imagine Penny rejecting your conclusion for various reasons. We must nonetheless end the discussion here. The reasons Penny could now offer would be much like those we have already imagined her to offer. You could respond to them much as we have imagined you responding to the others. Penny's case has *already* illustrated all it can. I would stress three points:

The first is that the way of ethics and the way of morality are *not* equivalent. You may well be able to use the way of morality when you can't use the way of ethics. In Penny's case, for example, we had no trouble using the way of morality even though (assuming Penny had her facts right) we could not see any obvious way to use the way of ethics.

A second point I want to stress is that you should not just assume you know why a student has gone wrong. Penny might have pilfered because she wanted to steal ("an evil will"); because she gave into temptation ("weakness of will"); because she fooled herself into thinking she wasn't stealing ("self-deception"); because she didn't put together what she knew already ("mistake"); because she didn't know crucial facts ("ignorance"); or because of some combination of these. You could not know which without investigation.

Penny's question itself tells us something. She probably would not ask it if she were not concerned to do the right thing. So, she probably has a good will. Her question also suggests that neither weakness of will nor self-deception played much of a part in her pilfering. A weak-willed person knows that what she is doing is wrong and so would not need to ask Penny's question. A self-deceiver probably would not want to ask Penny's question for fear of being told what she is trying to forget. So, a question like Penny's is a good indication that mistake, missing fact, or some combi-

nation of these is the cause of wrongdoing. This is just as well. Our method is not designed to deal with an evil will, weakness of will, or self-deception. Indeed, it is, I think, an open question whether the classroom is the appropriate place to try to remove such barriers to good conduct.

Though Penny's question itself told you much, it did not tell you the relevant mistake or missing fact motivating her. To identify that, you had to ask questions of your own. The first questions we imagined you to ask revealed that Penny's wrongdoing rested on a mistake. She supposed that taking the pencils fit under an exception to the rule against theft. Your questions then identified the relevant exception. We could imagine the discussion going on indefinitely because we could imagine any number of possible exceptions she might have had in mind. While in theory the number of possible exceptions is infinite, in practice there are few and a few questions will ordinarily allow you to identify the one the student has implicitly assumed.

Once you have identified the exception, there are at least three possibilities. I have illustrated two of them. One pos-

sibility is that the exception does *not* excuse the act. For example, the exception might actually require Penny to check with the manager first. The second possibility is that the identified exception might *not* be defensible. It might not actually be an exception. For example, once Penny put herself in the place of a business owner, even she could see why such a person would reject her distinction between property in the home and property in a business. She could understand why her exception could not be a standard everyone wants everyone else to follow.

Though I have not illustrated the third possibility, it deserves mention. The same questions that we imagined to help Penny put together the information she had in a way that changed what she thought about pilfering might instead have changed what *you* thought. Penny might have been able to identify a defensible exception excusing what she did.¹¹ We must always be ready to learn from our students. Moral argument is no exception.

The last point I want to stress is related to this second and concerns what you can hope to accomplish by a discussion

like the one we imagined. You are, I think, justified in hoping to change for the better how someone like Penny will act in the workplace. Penny's question showed that she wanted to do the right thing. If your questions lead her to see some act as caused by a mistake, she will not want to repeat it. You can actually change the conduct (and the moral views) of a student like Penny. There's no magic about it. You need only understand her thinking well enough to identify the mistake that caused her to go once you have made her thinking ex-



PLICIT. But you may have to use all your skill as a teacher to make it explicit.

This description of the method may make it seem coldly intellectual. It need not be. We must remember how personal an exchange between teacher and student can be, even in a large classroom, the pressure, the excitement. Logic and emotion can run together in a wild stream.

3. The Way of Ethics

So far we have been assuming that Penny has her facts right. She may not. And you, an experienced teacher, are likely to know enough about Penny's workplace to know whether she does have her facts right. So, let's change the problem a bit. Let's assume that Penny is *not* the first student to tell you about Fat Boy pencils, that you first heard Penny's question some years ago (including the part about even the manager wondering why he had so many pencils), and that you then made suitable inquiries of the manager and others. Here is what you found out:

There is a problem with shrinkage in the inventory of pencils. The primary cause seems to be forgetting to return pencils at the end of a shift rather than employees actually taking them intentionally. A few employees even accumulate them at home until they remember to bring them back and then bring back a handful all at once. Whatever the cause, shrinkage is a small problem. According to the manager, so few pencils disappear that, even at the rate of one per employee per year, no more than a quarter of the staff could be guilty of keeping one pencil a year. The manager doubts very much that "everyone does it". He admits that Fat Boy's does have a lot of pencils around, but he denies ever wondering why. Company policy is to have enough pencils out that no employee will ever have to take time to hunt one up. The company limits the number of pencils a manager can order or have in stock. If employees pilfered too many pencils, the manager would have to check each employee before letting him or her out the door or risk a drop in productivity

by making employees work with too few pencils. Company policy does not allow using pencils without the Fat Boy logo.

With this additional information, you would be in a position to handle Penny's question in a very different way. If ignorance caused Penny's pilfering, just reciting these facts should change her mind or at least convince her to check the facts before taking any more pencils. But, let's suppose these facts do not change her mind. However unlikely, let's suppose that Penny simply shrugs her shoulders and says, "Well, I still don't see what's wrong with taking a few cheap pencils now and then."

You would have two options. One is the way of morality we already discussed. But the other is the way of ethics. By a series of questions much like those we already imagined, you would try to get Penny to see that her having a pencil at work when she needs it depends in part on other employees not pilfering as she does. If the other employees did what she does, there would soon be a shortage of pencils. Unless the manager then cracked down, all employees would be inconvenienced. So, everyone, including Penny, has an interest in a practice in which employees abstain from taking pencils the way Penny did. Penny's pilfering is ethically wrong. You can, I think, easily imagine a series of questions that would lead Penny to that conclusion.

4. Conclusion: Helping Students Think about Ethics

The approach sketched in this Part depends on students asking something like Penny's original question. If you are like many of the vocational teachers I interviewed, you may be saying to yourself, "But my students never ask questions like that in class. How I wish they would!" So, you might also be wondering whether I have any suggestions for getting your students to ask questions like Penny's.

The answer is that I do have one. Students of engineering, law and other professions generally seem to believe that ethics, like sex, is a personal matter irrelevant to the workplace. Your students may come into class with much the same attitude. If so, you will have to do what

teachers in professional schools have to do if they want their students to raise ethics questions in an ordinary course. You will have to let them know that such questions are legitimate. The simplest way to do that is to raise such questions yourself early in the semester, discuss them with some care, and encourage the class to participate. Once you break the ice, you may be surprised at what happens next. Here are some problems I collected that you might find useful ice breakers.

PART FOUR:

FOUR PROBLEMS FOR DISCUSSION

1. Justin Major is the present holder of a part-time job that has been available to your students for a decade now, a wonderful job compared to the usual fast-food placement. Justin must work two hours each evening painting industrial steel to be used the following morning for construction. His hours are flexible. He can start anytime after 3:30, so long as he finishes by 7:00. His job is important. The paint requires almost eight hours to dry. If Justin fails to do his job on any day, the construction gang will not be able to do its job the next day.

You thought Justin understood all this. But that was last fall. Justin's boss called you a few minutes ago to tell you that Justin didn't show up last night. When you asked Justin why he had not, he said that he didn't think he was getting paid enough for the job he was doing. So, he took off a little time. Is there anything you can say to Justin that might change his mind. If he misses work again, he will be fired, but he is just six weeks from graduation. [Ask your class for advice.]

2. Most of your co-workers at Fishy-Wishy's are drug-free. But some are, you think, on one sort of drug or another. You know for sure one of them is, because you have seen him sniffing cocaine in the kitchen during a quiet moment. While he was once pretty good in the kitchen, he is increasingly prone to confusing orders. That makes your job up front harder. So far you and the other staff have covered for him. But you're getting tired of that. The manager doesn't seem to have noticed anything wrong. You are tempted to tell him. Should you? What if he asks?

3. When my friends come to King

Fries, I like to show them that I appreciate them. So, when they order a large fries, I give them what they ask for but charge them for the small. Sincere there is no way to check the order sheets against the cash for the day, no one is the wiser. I save each friend a quarter or so; but the fries really only cost the company two cents and my friends probably would only order small fries if they couldn't get the extra fries free. Really, my friends wouldn't come in at all if I weren't there. So, where's the harm? You can't call that stealing.

4. The first rule we were taught during orientation was that you should never leave the cash register without locking your cash box. Never. Never. Never. If you come up short, you will be fired. No excuses.

a. One day my manager says to me, "Please go into the backroom and get me four boxes of No. 2 rolls." So, I say, "Sure, as soon as I lock my cash box." But he says, "No time, just do it. I'll watch the register." What should I do?

b. Suppose I did what the manager said, leaving him with the unlocked cashbox. Suppose too that that evening my cash comes up \$20 short, that I don't have \$20 to slip in, and that he says, "You're fired." What should I do then?

NOTES

¹ A version of this paper was presented as part of a mini-seminar for the Illinois Cooperative Vocational Education Coordinators Association on May 18, 1988. I should like to thank those present for their warm response, helpful suggestions, and good examples.

² The best of these is, I think, Thomas F. Green, "The Formation of Conscience in an Age of Technology", *American Journal of Education* 93 (November 1985): 1-32. For something more typical of work in this area, see Matthew Lipman, "Ethical Reason and the Craft of Moral Practice", *Journal of Moral Education* 16 (May 1987): 139-147.

³ Grady Kimbrell and Ben S. Vineyard, *Succeeding in the World of Work*, 3rd. (McKnight Publishing Co.: Bloomington, Ill., 1981), p. 77. (Of course, ethical terms such as honesty and loyalty appear throughout the text, but they are not acknowledged to be ethical terms at all. They

often serve in place of an argument for the recommended conduct.)

⁴ For an application of this analysis to the professional ethics of teachers, see Michael Davis, "Vocational Teachers, Confidentiality, and Professional Ethics", *International Journal of Applied Philosophy* 4 (Spring 1988): 11-20. For the generalized version of this analysis, see Michael Davis, "The Moral Authority of a Professional Code", *NOMOS XXIX: Authority Revisited*, ed. J. Roland Pennock and John W. Chapman (New York University Press: New York, 1987), pp. 302-337.

⁵ For a full defense of analyzing morality in something like this way, see Bernard Gert, *The Moral Rules* (Harper Torchbooks: New York, 1973), esp. pp. 76-82.

⁶ Tom R. Tyler, "What is Procedural Justice?: Criteria Used by Citizens to Assess the Fairness of Legal Procedures", *Law & Society Review* 22 (1988): 103-135.

⁷ See, for example, S.E. Merry, "Everyday Understandings of the Law in Working Class America", *American Ethnologist* 13 (1986): 253-270.

⁸ See, for example, V. Lee Hamilton and Steve Rytina, "Social Consensus on Norms of Justice: Should the Punishment Fit the Crime?", *American Journal of Sociology* 85 (March 1980): 1117-1145.

⁹ See, for example, Moshe M. Blatt and Lawrence Kohlberg, "The Effects of Classroom Moral Discussion Upon Children's Level of Moral Judgment", *Journal of Moral Education* 4 (1975): 129-161.

¹⁰ Though the connection between judgment and action seems obvious, it is surprisingly hard to prove. Real life tests of the connection are hard to arrange. "Laboratory experiments" have their own problems. For example, Blatt and Kohlberg, in the work cited above, used a paper and pencil examination to test student honesty. The number of students cheating on the exam increased from 47% before the twelve weeks of classroom moral discussion began to 61% at the end. Blatt and Kohlberg quite plausibly attribute this awkward result in part to the fact that the students had realized that cheating was not being discouraged. Many who before had been afraid to cheat, seeing that they had nothing to fear, now joined the more daring. Blatt and Kohlberg also attribute this awkward

result partly, and less plausibly, to the fact that only one student was at the highest level of moral development, Kohlberg's "universal ethical principle orientation". (I say "less plausibly" because many moral philosophers might consider the cheating to have been so widespread that everyone was excused from the moral obligation not to cheat. After all, moral rules seem to presuppose certain background conditions.) "The Effects of Classroom Moral Discussion", p. 149. The literature on professional ethics and business ethics also seems to suffer from a lack of direct evidence that *changing* what people think about conduct *changes* what they do.

¹¹ Radicals may find this approach to teaching workplace ethics altogether too smug. Why not raise questions about the legitimacy of the boss's wealth and power? Why implicitly assume that stealing from business is morally wrong? To such radical questions, I have two responses. First, a course in how to get and keep a job has a practical mission, to help students get and keep their job. I doubt the radical critique of education is consistent with that mission. Second, and more important, my method does not rule out consideration of questions a radical might raise. The method simply leaves it to the student to raise them by, for example, denying that it's appropriate for Penny to try to put herself in her boss's place: "I'm never going to own a business." My impression is that this is not a time when students, especially students like Penny, raise such questions. As a philosopher, I miss the days when students did raise such questions. But, as someone trying to help teachers get over their fear of teaching ethics, I can't help remembering the difficulty I had finding a moral argument in Marx. I think the radicals owe the rest of us a justification of their enterprise that is not itself a form of mystification. Until we hear that justification, we may, I think, teach ethics as I have suggested in good conscience. We might even remind the radicals that showing students that morality is something about which they can reason is itself liberating in a society where far too many people suppose morality to be a fact like gravity, a god's command, or an inexplicable custom.

David Benjamin, a seasoned veteran of *Philosophy for Children*, now works to bring traditional philosophy to East Lansing (Michigan) High School.

Philosophy in High School: What Does It All Mean?

David Benjamin

The East Lansing High School Philosophy Club is about to break for the year, because of all the tests and ceremonies and activities that make up the chaotic ending of the school year—but this brings forth an important question or problem: and that is, how much priority and value does the Club have to its members? During busy times of year, some members have passed up the Club for the sake of other “more important” commitments. With attendance purely optional and *not* restricted to “devoted” participants, the club is certainly a step above the traditional educational roadblocks of tardies and detentions—the people who come *want* to be there, and for that reason the learning is not a chore. Yet, many of the members lead busy lives and often have conflicting activities. Other would-be members can never make the Monday meetings, and while our high school supervisor, Mr. Martel, wants to, as he says, “improve the marketing” of our product, I simply want all of the interested students to have the opportunity to find out what we are all about.

But at the same time that I would like to see kids who are there because they really want to be there, I am wary of that same fact. Lots of members come to the meetings and participate merely for the enjoyment of the moment—they like what’s going on and they have fun talking to each other once a week. So this is all great, but the problem arises in the fact that kids don’t always do the work—the readings and preparations that could be considered the homework of our Club. Again, there is a lack of total commitment of some of the students that are indeed *interested*—and the question is, what do we do, then? Yes, there are some students who consistently do the readings, and participate actively in the discussions, but, as I suppose is true in all education, a balance must be obtained weighing the desire and ability of the majority against the genuine intent of the organization—and the intent of our Philosophy Club certainly *includes* serving the students. Yet, as philosophy has taught me to do, I question how informed and knowledgeable the students, and I include myself, are about the question

of whether or not the readings are the best or only way to learn philosophy, and how much weight our “incomplete” desires should carry. This is the paternalistic side of me that is looking out for the best interest of the students at a point when they do not have all the facts to make their own decision completely free of guidance. It is obvious that the Club needs some guidance from a “professional” philosopher, but I want to be careful not to sacrifice something in the Club that I value very highly—and that is, the freedom and choice and independent, critical thinking that it encourages. So, what happens if the majority doesn’t have the time to do the readings—and this is not particularly surprising considering the common notion that a Club, almost by definition, must demand less of a student than a class. As an additional burden to six hours of formal brainwashing, readings for Philosophy Club are often an unattractive option, while at the same time students *really do* like coming to the meetings—for the fun of it as much as for the knowledge of traditional philosophy.

So, taking into account that students don't always have the desire to read—we face the problem of balancing the scale of fun vs. work—for the majority (not the devoted few), because it is pointless to discuss articles when less than half of the people who show up have read them. But it is similarly pointless to scare interested kids away by moving quickly and discouraging people who haven't done the reading from attending.

So, the members' voices must be listened to—but the importance lies more in how the balance is made than in whether the kids actually choose to do the reading. In reaction to lack of enthusiasm for readings, we tried varying the Club's activities. Recently, we showed a one-hour "Ethics in America" video tape and followed it by a discussion. This made the meeting self-contained so that no outside commitment was necessary and so that members would not feel left behind if they missed the meeting. Altogether, the students like the idea of variety—some readings and then discussions, some videotapes and then discussions, some outside lecturers followed by discussions, and even some completely open discussions separate from any experienced, well-versed, maybe slightly intimidating philosopher or teacher: discussions just for us beginners to get a handle on the wild ideas for ourselves. The key word here is discussion—and I don't mean the kind of discussion in American History class where the teacher asks a question about the Spanish-American War and the student is *rewarded* for repeating the words of the textbook. I am getting at the most crucial and advantageous part of philosophy for high schoolers and that is its emphasis on thinking for yourself, as opposed to being taught what to think. Most of the members agree that this is possibly *the* most valuable premise of the existence of our Club.

But complicating this problem is another one of our original goals: a philosophy *class* at East Lansing High School. To work towards forming a class, it seems like the Club should be shaping itself as a model. This might mean writing papers, and it seems that it would have to include frequent readings. So, at this point, with the class in mind, the Club

has been presented with the scale of fun vs. work and a commitment to the reading of "Where Am I?" a chapter from *The Mind's I* by Dennett and Hoffstadter, has been chosen by the Club as a whole—a decision that in this case is qualified to override any paternalism. Yet in our first year of recognized existence, we must still sort things out and make a "paternalism-defying" choice of the direction in which we want to head.

And this is one of the advantages of the Club over a class—the students, the members, the same people who make the entire thing exist, are a fundamental part of the decision-making—which seems fitting to me, as philosophy has always represented an expansion of the mind, a forum for thoughts and opinions, and a way of thinking in which the most *reasonable* solution has a tendency to prevail. There is nothing more *reasonable* than students—especially the time they have reached high school—taking an important role in their own education. In our particular instance of philosophy in high school, students seem to see more value in the freedom, the opening up, the clarifying of their beliefs, the experience of struggling to say exactly what they mean, and most-of-all the critical perspective it offers—students see more value in this than in the particular philosophical questions. And this is exactly the reason that philosophy for high schoolers is so important—because students do not get this very necessary perspective from any other high school class—and this perspective is a crucial one for all students. Its applications carry far beyond our Monday after-school discussions to almost every aspect of decision-making and problem-solving in any student's life.

But then this creates yet another problem and it is one of the reasons that I am hesitant about a structured, formal philosophy class in East Lansing High School. Before being bombarded by another slew of information and opinion—whether it is Plato or Nagel or even the most unbrainwashing philosophical writer—students must be exposed to what I believe is the underlying thesis of this entire school of thought. And while there have been brilliant, insightful, noteworthy philosophers throughout history, any

"great philosophical writing of the past" endangers the concept that is more critical at this point. By no means do I mean to devalue any philosophical writings of the past, but I am wary of the consequences of a course entitled "philosophy" that merely focuses *on the style* and exposition of Plato's *Republic* and takes for granted or overlooks the necessity of independent thinking. Another literature class or history class with a philosophical twist may only serve to drown the students and bury the true value at this time. Only *after* an understanding of the philosophical method of thought—which has proven to delight the members—can students be expected to learn all of the philosophical theories and to piece together "what it does all mean."

True learning comes easiest from the desire of the student to be taught, and the philosophy in *our* Philosophy Club is so much fun and so desirable that some members refuse to admit that it's education. Ironically, I think that fun and desire to participate are two *necessary* ingredients of education—and only with this in mind will society be able to create the best possible high schools. In closing, I would like to borrow an example from Thomas Nagel. In *What Does It All Mean?*, Nagel speculates about a crazy scientist attempting to observe another person's experience of tasting chocolate by licking the person's brain while he/she eats a chocolate bar. Nagel points out that even if the brain did taste like chocolate to the scientist, the mad experimenter would not have succeeded in getting into the person's mind to experience *his/her* sensation of tasting the chocolate. Similarly, most of you—and I feel that your support and *your desire* are mutually necessary in the creation of philosophy in high school—most of you cannot experience being a high school student in 1989, and likewise I cannot feel what it is like to any of the other students—but for this exact reason, the fact that nobody but *you* is qualified to accurately represent *your* thoughts and experiences—for this reason it is imperative for *you* to weigh *my* thoughts and the thoughts of other interested high school students in *many* aspects of our own education, but especially something as important as philosophy.

Who is Older?

By: Cheu Huey-Ing

Abbe and Apan were sitting together under the big tree in the yard eating biscuits.

"Apan, who is older, you or I?"

"I'm older than you are."

"Hmm! Why?"

"I am seven years old and you are five.

Of course, I'm older than you are."

"I know seven years old is older than five years old but are you *really* older than me?"

"What are you talking about?"

"I'm saying are you really seven years old?"

"Of course, I'm seven years old. Don't forget I'm a first grader now!"

"Na! Are you *all over* seven years old?"

"What do you mean all over seven years old? Seven years old is seven years old. You just don't say *all over* seven years old."

"I'm asking you if your whole body is seven years old?"

"Yes, of course my whole body is seven years old."

"But you just clipped your finger nails yesterday. I saw you."

"So what?"

"So I bet your newly grown finger nails are not yet seven years old. Maybe they are even younger than our little brother, Ada's nails."

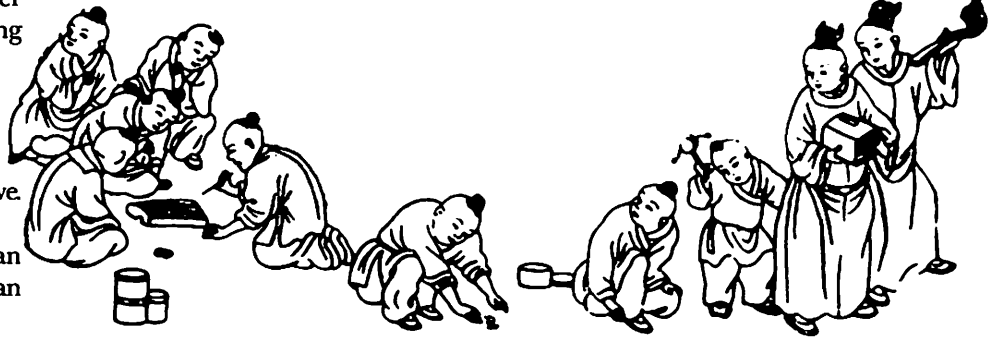
Apan crooks his neck, bends his head, thinks for a while and says, "But I'm seven years old."

"But your whole body is not seven years old."

"Are you saying that some of me is seven years old, and some of me is not yet seven years old?"

"Hmmm."

"Then, I'm not necessarily older than you are?"



"That's right. For example, some of your teeth have fallen out, and new ones haven't grown in yet. And some of the new ones have *just* come in. And my teeth—all my teeth have been around for a long, long time"

"You mean some of your teeth are older than some of my teeth?"

"Hmm! Hmm!"

"And think of your hair. Sometimes my hair is older than yours and sometimes your hair is older than mine."

"Older brother, Apan, you are very smart."

"Hmmm."

"And think of little Ada. Then think of the three of us. Now, who do you think is the real older brother?"

"It depends. Sometimes I am, and I guess sometimes you are and maybe sometimes even Ada is."

"Ada?"

"Ada's hair hasn't been cut since he was born."

"All right! From now on, don't call me your older brother and I won't call you my younger brother. You can just call me 'Apan' and I will just call you 'Abbe'."

"Who is older?" was first published in 'The Children's Daily News' (Taipei, Taiwan). The author, Ms. Chiou Huey-Ying, is a mother of a five-and-a-half year old girl. Ms Chiou had no philosophy background before she joined Caterpillar, first as a mother and later as an assistant. Ms. Chiou has published over 50 stories like this one all based on her experience with her daughter and the children here at Caterpillar. Pixie served as a model for organizing her experience philosophically. Caterpillar plans to publish a collection of her stories which were originally serialized in the newspaper.

"Okay."

"Do you know why? Because seven years old is not necessarily older than five years old."

Just then, Momma comes in from the yard, walking very slowly with a large bamboo basket of newly washed clothes. "Apan and Abbe, go get your little brother and take him out in the sunshine"

"Which little brother?" Abbe asks.

"You only have one little brother," Momma says.

Apan gives Abbe a long look and says, "Momma, you often say that when you speak you ought to speak clearly and distinctly. Which little brother do you mean?"

"What happened to you two? When I say your little brother, I mean, of course, Apan's little brother and also Abbe's little brother. Is that clear? His name is Ada."

Momma's voice is getting louder and louder.

"Oh, if you had said 'Ada' to start with, wouldn't that have been better? I mean, instead of saying 'little brother'."

Frederick S. Oscanyan is chairperson, Department of Philosophy, Berea College, Berea, KY.

Pushing Thoughts with Claire

By Frederick S. Oscanyan,
with the assistance of Monica Walter

What is the significance of Philosophy for Children from the point of view of a child? What do children see in it? What does it mean to them in their own terms? Perhaps because of the informal setting, an evening conversation with a babysitter, Claire's remarks suggest some answers to these questions.

At the time of the following discussion, Claire McConnell is ten years old and goes to the Brown School in Louisville, Kentucky. She is in the fifth grade. Monica Walter, who is spending 24 hours with Claire and her sisters, 13 and 7, had taken a course in Philosophy for Children at Berea College a few months earlier.

Monica: While I was trying to get the seven year old to sleep, Claire called me into the kitchen where she and I had been drawing. "I *must* finish the horse I began," she commented.

Monica: "Oh, really?"

Claire: "Yes, I must. Because if you start

a drawing and do not finish it, it will be most unhappy. Say, your horse, for example. If you draw only half of it, it will cry, and when you die all these unfinished creatures will come back to you, crying because you never thought to finish them. So you must finish your horse!"

Monica: Claire's older sister, Elly, is playing a Sting record in the next room. As I listen, I draw, not really thinking about what I'm drawing. When I finish the drawing, Claire stares at it and exclaims: "That is really amazing! Here Elly is playing Sting, and the face you drew looks like him almost, or someone who would sing that type of music! I bet you weren't thinking, either, but gosh! That's amazing!"

"How so?" asks Monica.

Claire: "We have this amazing capacity to understand things, but many times what we do we don't even think about. For example, in drawing what you did,

you probably weren't thinking of what you were doing—or why. But your mind is almost acting for you. And if we would stop and look at what we do, and why we do it, then we could push our minds, our thoughts, further."

Monica: "Are you familiar with *Pixie* or *Harry Stottlemeier's Discovery*?"

Clair's eyes light up. "Yes! We did *Pixie* when I was in third grade, and *Kio and Gus* in the second, and *Harry* last year and again this year!"

"How is it that your teacher introduced *Pixie* and *Harry* to your class? I mean, did she say that you all would be studying philosophy, or that you would be learning about philosophers' ideas, or...?"

"Well, no, *well* . . . she, Johanna, that was my third grade teacher, didn't really *tell* us that, but she did suggest philosophical ideas. Tony, my teacher right now, is sorta like her. But you know, I like reading those books so much because we can

take one line from one page and take it back to an idea on another page, and from there go on and on with that one thought. I like it so much because we do talk about things that are *mind* boggling, things that we do without thinking, things we take for granted.

"You know, it's sad to think of all we do take for granted, and all that we can learn if we just push our thoughts further and further. It's like an ant you see on the sidewalk. Well, he doesn't have the mind we do to think, so all he can do is walk around. But we, we have, say, water and electricity. *Electricity!* Do we ever really stop and think about it? Not often. We turn on the light when we need it, and take for granted we can see. An ant could never even *start* to think about electricity, even if he wanted to... that a key struck by lightning, for instance, was how electricity came about."

"With these profound thoughts of yours, Claire, it would seem you should write them down."

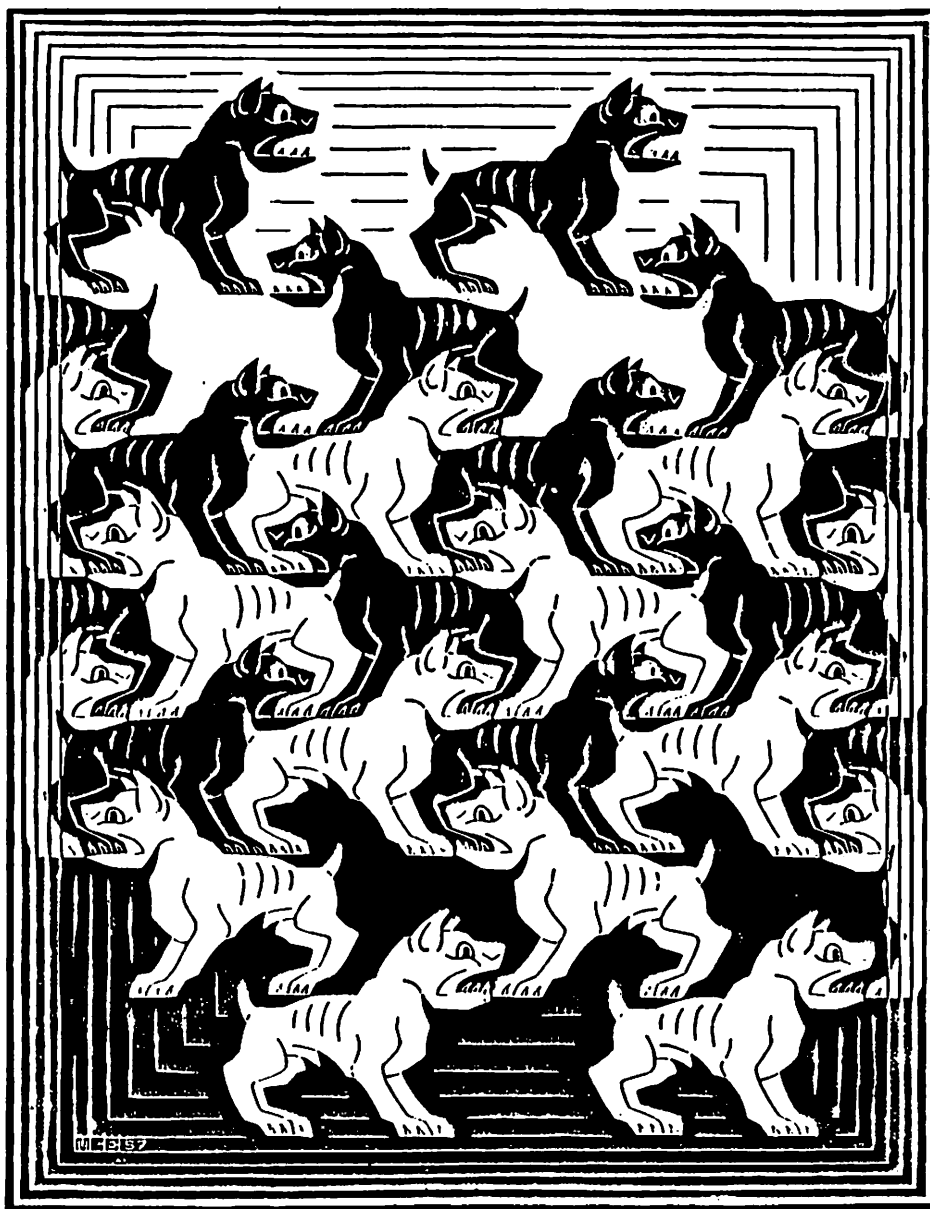
"Well, you know it is *so* nice getting to *talk* so long without having to raise my hand. I don't write my thoughts down, because then they don't seem important. When I have to raise my hand in class, by the time I'm called on, my idea doesn't seem as important as it did at first. When I finally get to speak, my words don't seem to have the same impact or meaning as they did when I first thought of them. And too, if someone else says what I want to, they don't put [as] much life into the thought as it seems it should have, and then I wonder if it's really that important. And so, if I would write down all of what we've been talking about, it just wouldn't seem to mean as much."

Claire heads off to bed. But she leaves us with thoughts about taking responsibility for completing what we start to create, an importance, for Claire at least, that transcends mortal life. She also reminds us to consider the role of subconscious thought in creative work, and she contrasts the fresh liveliness of a new insight with its less vivid restatement. Claire finds an exceptional interconnectedness in the philosophical texts and tells us that Philosophy for Children challenges her to examine what she takes for granted in her actions as well as beliefs, recognizing in reflective thought a key to what is unique about being human. Her

charming phrases articulate ideas central to a liberal arts education: self-examination; learning to see ourselves in relation to others; never ultimately accepting unexamined assumptions, and taking into account the possibility of religious meaning in our creative work. She urges us to care for and use our capacity for reflective thought, thereby better understanding our common humanity.

Claire's remarks do not give a simple picture of how her study of Philosophy for Children contributes to her thinking.

Nor may we fully accept her views: We may wish to take exception to the way she discounts written communication; we may regret that she does not appreciate the value of the common understanding achieved when someone else says what she is thinking. But Claire clearly values her thoughts and encourages us to take our own more seriously. She provokes us to try to recognize our own assumptions and to think more clearly about them. Claire pushes our thoughts along.



Reflections

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

Post modern science and the end of value-free objectivity

Descartes, Newton, and the other founders of the new method recognized that its scope was limited: that it could be used in the study of passive material objects but was not appropriate in dealing with active mental agents. Before long, however, this strategy was enormously fruitful, spreading over from physics into chemistry and physiology; and, as its successes accumulated, its limitations were overlooked. By the middle of the nineteenth century, many people had come to see the method of Modern Science as providing a universal recipe, not just for the study of inanimate nature but for rational inquiries of all kinds. So were born the notions of objectivity, value neutrality, and detachment that have recently been called into question, on the mistaken assumption that they are intrinsic to scientific thought rather than being exaggerations of the method appropriate to a particular subclass of scientific inquiries during a particular phase of history...

Even in fundamental physics, as it has finally turned out, the Newtonian presuppositions hold good only up to a point. Once the delicacy of our interaction with the physical world increases far enough, we can no longer continue to reduce still further our influence on the processes we are studying; on the contrary, beyond that point those interactions are two-way ones, quite as much as they are in ecology or psychiatry. This fact, as John Dewey rightly pointed out, is the real philosophical moral of Werner Heisenberg's uncertainty principle...

In short, many environmentalists display a kind of piety toward nature which owes nothing to any utilitarian calculations. For them, the fundamental scientific insight is that the world of nature forms a marvelously harmonious

system, a *kosmos*, and the right way of ordering our lives is to ensure that we maintain, rather than disrupt, the *kosmos* of the creation. If that creation came into existence bit by bit, as an outcome of evolutionary history, this makes it none the less marvelous, and none the less deserving of respect, than it did for Charles Darwin himself...

We find ourselves, accordingly, faced with an intriguing challenge and an opportunity. From now on, the central and most typical fields of scientific inquiry will be postmodern ones, sciences that focus on the relationships between humanity and the rest of nature or among human beings themselves. The issues they raise will no longer be merely factual, to say nothing of value-neutral. On the contrary, all of them will raise questions of wider kinds, moral and political, philosophical and religious. And the opportunity that faces scientists and theologians, philosophers and political theorists is to sit down together and see whether they can reach any common agreement about the cosmological scheme implicit in the findings of those new fields of science.

—from Stephen Toulmin, "Cosmology as Science and as Religion," in Leroy S. Rouner, ed., *On Nature* (Notre Dame, Ind.: U. Of Notre Dame Press, 1984) pp. 32-33, 39.

On the Nature of Animals

Our present task is to speak about the nature of animals. So far as possible we will omit no species of animal from consideration, however mean its condition. For even animals that are not attractive to sense offer, to the contemplative vision, the immeasurable joy of discovering creative nature at work in them. It would be strangely paradoxical if we enjoyed studying mere likenesses of nature, because of the painter's or carver's art that they embody, while ignoring the

even greater delight of studying nature's own works where we are able to discern the formative factors. So we should not childishly refuse to study the meaner animals, for in all works of nature there is something of the marvellous. A story is told of Heraclitus, that when some visitors desired to see him but hesitated when they found him in the kitchen warming himself by the fire, he bade them: "Come in, don't be afraid! for here, too, are gods." In like manner, boldly and without distaste, we ought to pursue the investigation of every sort of animal, for every one of them will reveal to us something both of nature and of beauty. I say beauty, because in nature it is purpose, not haphazard, that predominates; and the purpose which directs and permeates her works is one type of the beautiful...

—Aristotle, *The Parts of Animals*.

The Politics and Ethics of Literacy

Research findings on the link between literacy and social contexts suggest important implications for educators and policy makers, including: (1) it is inappropriate and inaccurate to assume that low literate adults are helpless in the face of generally high national literacy demands; (2) because literacy use and purpose are so closely linked with racially segregated social contexts and networks, a heavy potential exists for literacy being used inappropriately for discrimination and gate-keeping; and (3) the same social networks that support low literate individuals may function to trap individuals into remaining low literates...

Instructors can benefit from paying attention to how literacy is actually used within productive social networks. For example, literacy is often used in group solutions to problems. It may be that teaching students how to ask questions of peers or how to behave fairly in turn-taking and returning factors may be as important to actual literacy functioning as teaching decoding skills.

—Larry M. Kulecky in *Literacy Research Center*, Spring, 1988.

PHILOSOPHER

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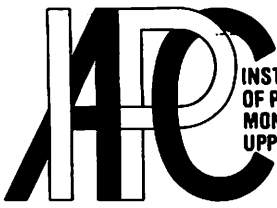
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