Table of Contents

Thinking in Stories
Gareth B. Matthews, review of William Steig, Shrek! ........................................ 1

Research in Community of Inquiry

Freedom, Philosophy, and Creativity
Philip Cam, Philosophy and Freedom ................................................................. 10
Gareth B. Matthews, Creativity in the Philosophical Thinking of Children ............. 14

Reflections
Nietzsche on Philosophy and Philosophers ......................................................... 20
Grotthuss on Socrates ......................................................................................... 38

Philosophy for Children and Montessori
Juliette Christie, Introduction of Philosophy for Children into the Montessori Curriculum ................................................................. 22

Teaching Reasoning Skills
Claude Graiton, Precision, Consistency, Implication, and Inference ................. 30

Philosophy for Children and Emotional Intelligence
Ann Gazzard, What Does Philosophy for Children Have to Do with Emotional Intelligence? ................................................................. 39

Notes from the Field
Where Was the Doll Before It Was in the Dollmaker's Mind? .............................. 46

Credits
**THINKING IN STORIES**  
By Gareth B. Matthews


Shrek is ugly, revoltingly ugly. Although his mother and his father are also very ugly, Shrek is even uglier than the two of them put together. In addition to being quintessentially ugly, Shrek is repulsive in other ways. For example, he can spit a flame a full ninety-nine yards in front of him; he can also vent smoke from each of his two ears.

"Hissing things over" one day, Shrek’s parents decide that Shrek should be kicked out of his home and sent out into the world to fend for himself. So they do just that. As Shrek goes out into the world it delights him to see the flowers bend aside, the trees lean away to let him go by.

In the woods Shrek encounters a very ugly witch who is busy boiling bats in turpentine and turtle juice. She sings as she stirs her big pot of smelly stew. "What a lovely stench!" remarks Shrek gleefully. The very sight of Shrek in all his ugliness makes the witch woozy. When she recovers from her wooziness, she agrees to tell Shrek’s fortune in exchange for a few of his “rare lice.” In doggerel verse the witch tells Shrek that a donkey will take him to a knight whom he will subdue; then he will meet and marry a princess even uglier than he is.

Fired up with the thought of meeting his “fairy princess,” Shrek happily sets out on a mission to find her. Along the way he encounters a poor peasant, whose lunch he takes; he warms the lunch in the laser-like glare of his eyes and then eats it for his dinner. Some time later Lightening and Thunder catch sight of Shrek and try to frighten him. But he just gobbles up Lightening’s fiercest bolt and belches out smoke in the way other people might burp after a heavy meal. On the edge of the next woods Shrek comes upon a warning sign, which threatens harm to anyone who ventures into the woods. Shrek swaggers right past the sign. A little way into the woods he does, in fact, encounter a dragon, which he promptly subdues.

Next, Shrek encounters the promised donkey, to whom he recites the magic words the witch had told him to use. The donkey carries him to the castle, where he encounters the promised knight and subdues him. In triumph he crosses the drawbridge and enters the castle.

Once inside the castle Shrek finds himself in a hall of mirrors. His frightful face is multiplied so many times that even he is frightened. But when he starts to run, so do all his reflections. On recognizing that it is just himself he sees in the many mirrors, Shrek goes on into the throne room, where he meets the most stunningly ugly princess on the surface of the planet. Shrek and the ugly princess fall completely in love with each other and decide to get married as soon as possible.

Here the story ends. Shrek and his unbelievably ugly princess get married and live horribly ever after, "scaring the socks off all who fall afool of them."

* * *

We can hardly expect that *Shrek* will be every child’s favorite story. Some children, we can be sure, will be "grossed out" by Shrek’s revolting face, head, and claw-like hands. But some children will delight in Shrek’s incredible ugliness and will applaud his vulgar behavior.

No doubt *Shrek* offers at least a temporary respite from the oppressive demands adults in our society lay upon children, demands to look clean and beautiful and to act in ways that adults find attractive. In laughing at what makes their parents and teachers squeamish and uncomfortable, children can strike a blow for their own liberation.

Yet there seems to be more to this story than child liberation. *Shrek* (*Schrek* means ‘fright’ in German and Yiddish) raises an important question about whether there can be anything genuinely attractive, even beautiful, that is also extremely ugly.

In a way the answer to that question seems obviously to be ‘No’. The beautiful and the ugly are opposites. Nothing, it seems, could be both beautiful and ugly, or even ugly and attractive—at least not in the same respect.

Yet consider the Flemish painter, Hieronymous Bosch. His painting, *The Temptation of St. Anthony,* is full of loathsome creatures. But the painting is an artistic masterpiece. It is nightmarishly beautiful and repulsively attractive.

The idea that art aims simply at the beautiful is, in fact, false. I once saw an art show in Vienna called "The Magic of Medusa" made up entirely of grotesquity. It included Western art of all periods—from ancient depictions of the writhing snakes of Medusa through revolting Renaissance drawings of human anatomy in gruesome detail, to modern “masterpieces” of surrealism. It was a show devoted to the beauty of ugliness.

At Halloween many children are allowed to indulge their own fascination with the grotesque and the ugly. Their revolting masks and disgusting costumes are indulged, no doubt, partly because their parents realize that Halloween comes but once a year. But why not actually discuss with children the way some of them (and some of us!) become fascinated with ugliness? One can hardly imagine a better vehicle for that discussion than William Steig’s *Shrek,* which, incidentally, is attractively illustrated in revolting detail by the artist/author.
The Developmental Dynamics of a Community of Philosophical Inquiry in an Elementary School Mathematics Classroom

Marie-France Daniel, Louise Lafortune, Richard Pallascio and Michael Schleifer

There is a tendency among those committed to the cause of education to object to the competitive educational methods that still prevail in so many schools, and to attempt to find more significant foundations to foster pupils' learning (among others: Caouette, 1992; Ford, 1992; Lipman, 1988, 1991; Nicholls et al., 1984; Pallascio and Leblanc, 1992; Pallascio and Roy, 1998; Wentzel, 1991). Since the 1970s, various groups have been working to develop different cooperative approaches to learning, so today various schools use different cooperative educational methods. The primary architects of the cooperative teaching approach are Aronson (1978), Cohen (1986), Doise and Mugny (1984), Johnson and Johnson (1986), Kagan (1985), Sharan and Sharan (1976) and Slavin (1986, 1989-1990).

Studying the various cooperative approaches has led us to note the visibly fundamental differences between them. These differences are evident mainly in the inherent epistemologies and educational activities of the various approaches (individual tests, group tournaments, dialogue among peers, and so on), and extend even to contradicting one another.

The following common points stand out: all of the methods are centered on the pupils (and not on the teacher or on the program); they provide pupils with the opportunity to become more active participants in their own learning; they allow pupils to make choices and decisions; and they provide the opportunity to interact with their peers. Cooperative teaching methodology differs from its competitive counterpart in fostering leadership, individual responsibility, positive interdependence and interaction between pupils.

Theoretical considerations (Daniel and Schleifer, 1996) and empirical research (Schleifer and Fitch, 1993; Schleifer, Daniel, Lafortune, Pallascio, forthcoming) have identified four hierarchical levels in cooperative development. The first level sees cooperation as "good" behavior—that is, in the absence of argument and disagreement. The second level is characterized by the act of working together; cooperation in this instance is considered a means towards an end, which is the pupil's individual success. At this level, a minimum of communication is required among individuals (Doise and Mugny, 1984; Johnson and Johnson, 1986, 1989; Slavin, 1983, 1985, 1991). The third level involves a common goal, quality in communication, and a degree of interdependence among individuals (Deutsch, 1973). The fourth level considers cooperation as an end in itself; it is a synthesis of the preceding levels and integrates their criteria, particularly good behavior (Level 1), common goals (Level 2) and quality of communication (Level 3). However, the essence of Level 4 lies in what John Dewey (1916/1983) refers to as the "community" (as opposed to group or society) seen from a cognitive and moral perspective (Piaget, 1932).

In a recent research project subsidized by the Social Sciences and Humanities Research Council of Canada (1995-1999), we postulated that P4C (Philosophy for Children) and P4C adapted to math-
ematics (P4CM) was conducive to guiding pupils toward the fourth level of cooperation. Among other research objectives, we studied: 1) the development of the cooperation process within what Lipman and Sharp refer to as the community of philosophical inquiry (CPI); 2) the pupils' higher-order thinking skills as they appear during philosophical dialogue; 3) the possible relationship between cognitive development and cooperative behavior development. For the purposes of this paper, our interest is in the latter objective.

Why did we center our research project on the CPI when there are so many interesting studies on the topic? To our knowledge, most studies on the Community of Inquiry (CI) are undertaken from a theoretical point of view. We thus have many definitions of CI, but little or no empirical study that provides descriptions of how CI operates in the classroom. This lack of empirical data may lead some teachers and researchers to condemn the P4C approach for the wrong reasons. Basically, some of them might observe the pupils after a few weeks of "practice" in P4C, judge that their thinking is not improved or that their behavior is not cooperative, and conclude that the Lipman and Sharp approach "does not work." In fact, however, CPI is not a short-term product, but rather a long-term process. This is this process—together with its relationships and dynamics—that we aim to describe and analyze in this study.

We first present the research methodology, then the data collection instruments, analysis results, and a discussion.

Methodology

The research methodology used is the case study, which allows us to describe the developmental process of cooperative behavior in P4C, and its relationships to the development of the cognitive process. We are therefore situated in the reality of "what is" within a class group, rather than in the normative aim of "what should be" in any CPI.

The study included three groups of pupils from three different elementary schools: 1) a group of 30 grade 4 pupils from an advantaged socioeconomic background; 2) a mixed-age group of 15 pupils from grades 4, 5 and 6 from all socioeconomic backgrounds; 3) a group of 30 grade 6 pupils from a disadvantaged socioeconomic background. The evolution of the three groups was similar. But the study of the group of sixth graders was the most interesting, as it highlighted the difficulties in achieving a CPI and dialectical argumentation. It is the study of the dynamics in this group that we present in this paper.

The pupils were introduced to the P4C approach for the first time. The teacher conducting the weekly P4C session was also a novice, but was regularly assisted by a resource person expert in P4C. The context of the experiment was mathematical, and the material used was related to this subject (Daniel, Lafortune, Pallascio, Sykes, 1996).

Data Collection Instruments

Data collection took place from the middle of October to the end of May using two instruments: 1) the teacher's log book, completed after each session; 2) analysis of transcripts of the pupils' discussions, which
took place at the beginning and at the end of the school year.

After each session of exchanges among the pupils (i.e.: excluding sessions devoted to reading, collecting questions or summarizing the session), the teacher completed a log book. The teacher answered the following questions in writing: a) What were the tasks and roles taken on by the pupils/the teacher, and how was the distribution of tasks decided (by the teacher or by the pupils)? b) How was the class organized (in large groups, in small homogeneous groups, or in small heterogeneous groups)? c) What pupil behavior was observed with regard to how they function in teamwork or in large-group discussions? d) How was the teacher's perception of the pupils' awareness with regard to the session's objective? e) What was the distribution of tasks decided (by the teacher or by the pupils)? f) What was the behavior of the pupils (positive or negative) during teamwork?

Results

In analyzing transcripts of the pupils' discussions, we looked at each pupil's (verbal) intervention to determine: a) the types of intervention pupils displayed (answers, lower-order thinking, higher-order thinking); b) the dynamics of the exchange (pupil-pupil or teacher-pupil); and c) the nature of the exchange as a whole (anecdotal, monological or dialogical).

Analysis of Transcripts and Results

Pupils' Thinking Skills - First Transcript

Table 1 summarizes the analysis from the first exchange among pupils (mid-October). It presents the types of pupil intervention that occurred during the first exchange, which was dominated by answers (66 out of 109 interventions).

<table>
<thead>
<tr>
<th>Type of Intervention</th>
<th>Answer</th>
<th>Lower-order thinking</th>
<th>Higher-order thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of interventions</td>
<td>66</td>
<td>33</td>
<td>10</td>
</tr>
</tbody>
</table>

Among the 33 interventions supposing lower-order thinking skills, the most-used were the statement (10 instances), explanation (9 instances), and description (7 instances). Other interventions supposing lower-order thinking skills appeared only once or twice each. Among the 10 interventions supposing higher-order thinking skills, questioning was observed in three instances, and solution hypotheses occurred twice.

Regarding the dynamics of the exchange, interventions were mostly addressed to the teacher. This dynamic of exchange was rather conventional, in that it took place almost entirely between the teacher and the pupils, with the teacher asking the questions and the pupils answering them (see Table 2).

<table>
<thead>
<tr>
<th>Interventions addressed to the teacher</th>
<th>Interventions addressed to another pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>14</td>
</tr>
</tbody>
</table>

Global analysis of the exchange as a whole leads us to qualify this type of communication as monological, in that the pupils all speak on the same subject, but each in his/her own way, and each pursuing his/her own idea.

Pupils' Thinking Skills - Final Transcript

The final exchange between pupils was marked by interventions supposing lower-order thinking skills, followed by interventions presupposing higher-order thinking skills. The number of interventions of the answer type appeared less frequently (see Table 3).

<table>
<thead>
<tr>
<th>Type of intervention</th>
<th>Answers</th>
<th>Lower-order thinking</th>
<th>Higher-order thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of interventions</td>
<td>20</td>
<td>52</td>
<td>46</td>
</tr>
</tbody>
</table>

Among the 52 interventions supposing lower-order thinking skills that we observed, the most frequent were: 18 statements of points of view, 13 examples and 9 simple definitions (of a few words). With regard to the 46 interventions presupposing higher-order thinking skills, those that appeared most often were: use of nuance (9 instances), criticism (6 instances), and concrete syllogisms (4 instances).

With regard to the dynamics of the exchange, pupils' interventions were mainly addressed toward their peers (see Table 4).

<table>
<thead>
<tr>
<th>Interventions addressed toward the teacher</th>
<th>Interventions addressed toward other pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>95</td>
</tr>
</tbody>
</table>

General analysis of the final transcript reveals an exchange of the dialogical type between the pupils, in that they question each other, search for explanations, communicate nuances and share mutual criticism, all in an atmosphere of dialectical (vs. rhetorical) argumentation.

Comparison Between the First and the Final Transcript

Comparative study of both transcripts highlights the evolution of the pupils on the cognitive level. This evolution can be seen in the increased percentage of interventions supposing higher-order thinking skills (see Table 5). Thus, the number of answers (of one or two words) dropped from 61% to 26%, while the number of pupil interventions presupposing higher-order thinking skills increased significantly between the
first and the final recording from 9% to 35%, and the number of interventions presupposing lower-order thinking skills increased from 30% to 39%.

<table>
<thead>
<tr>
<th>Table 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answers</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>First transcript</td>
</tr>
<tr>
<td>Final transcript</td>
</tr>
</tbody>
</table>

There was also evolution with regard to the nature of the exchange, which went from monological at the beginning of the school year to dialogical at the end of the year, with all that implies on the epistemological, cognitive, affective and social levels. Table 6 illustrates the evolution of the dynamics of the exchange, both among pupils and between pupils and the teacher. In short, analysis of the pupils' discussion transcripts revealed significant progress on their part on the cognitive level between the beginning (mid-October) and the end (mid-May) of the school year.

<table>
<thead>
<tr>
<th>Table 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interventions addressed to: The teacher Another pupil</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>First transcript</td>
</tr>
<tr>
<td>Final transcript</td>
</tr>
</tbody>
</table>

In the second part of our study, we attempt to draw links between pupils cognitive evolution and the evolution of their cooperative behavior. For the second analysis we used the teacher's log book.

**Data from the Logbooks**

Following is a chronological synthesis of the logbooks, as completed by the teacher:

- (10-10) The work is done in heterogeneous teams and is suggested by the adult. There is a marked interest in the activity on behalf of most pupils; some play and boast their work, some have an attitude of cooperation; others do not listen at all.
- (10-31) A pupil takes the initiative to name himself group "secretary," much tolerance on the part of peers to clarify his role. His role consists in giving the pupils that raise their hands the right to speak. A discussion took place among the pupils to clarify his task. From this moment on, at almost every meeting, a new pupil names him/herself group secretary. For many weeks, the tasks and roles of the pupils revolve almost essentially around this function.
- (11-07) Secretary. As a group, there is mostly arithmetic and memorization work.
- (11-14) Secretary. Members of a sub-team mutually reinforce each other. Other pupils oppose their own positions and revisit the problem.
- (11-21) Secretary. Summary of the session completed by the pupils.
- (11-28) Secretary. Heterogeneous work teams suggested by the adult. Each team expresses itself, big participation right from the start; for some there is mutual talk, a going back over the weekly objective, while there is difficulty and impatience for some others.
- (03-13) Part of the session takes place in a large group, the other part in heterogeneous teams chosen by the teacher. The pupils agree or disagree, justify their point of view, talk among themselves, look for causes and draw up definitions. Only 7 or 8 pupils participate in the discussion, but they are the ones listening to each other, criticizing their ideas and arguing; the rest of the class hardly participates, the pupils are distracted and sometimes misbehave.
- (03-20) The pupils see relationships between concepts, they criticize and question each other, they reach agreements and give examples. Only 10 to 15% of pupils are not interested by the discussion and talk among themselves.
- (03-27) Heterogeneous teamwork for a total of five or six minutes only. Five or six pupils quickly complete the exercise and tease each other. The rest of the pupils share their answers, question, criticize, and support each other.
- (04-03) The pupils talk to each other and to the teacher, they question, criticize and compliment each other's ideas.
- (04-10) The pupils give their point of view, define terms, try to construct their ideas based on what was previously said by other pupils, criticize, mutually assist and listen to each other, sometimes very attentively, don't interrupt others but ask for permission to speak by raising their hand.
- (04-17) Approximately 10 minutes of heterogeneous teamwork suggested by the teacher. The pupils question each other and mutually assist each other in completing their points of view.
The first week of experimentation constituted the first stage. At the time of the first week, the pupils group them into representative themes or categories, according to the common characteristics we observed. It forms a group more than a community, in that a group is an aggregation of people with no common aim, whereas a community is a deliberate gathering of independent people with a common goal and a will to share (Dewey, 1913/1967). In this instance, as indicated in the teacher's logbook, some pupils have no listening skills at all. Moreover, no initiative in speech or in questioning on the part of the pupils was noted in the logbook, which allows us to presume that there exists a difference between the structure of a group and its intention, and that the democratic intention of CI has not yet been understood by these pupils. Consequently, the teacher retains her conventional status, and the pupils' conception of authority remains vertical and unilateral. We call this first stage: Spontaneous Competition-Cooperation in premises where the adult holds the authority status. At this stage, cognitive skills are expressed in simple answers.

From the second week on, a second stage becomes apparent. Since the group is the location where roles are defined and rules are instituted (Méard, 1995) and since the CI is a democratic place (Sharp, 1990), in principle each person has freedom of expression and action. The pupils, assisted by the adult, seem to become aware of this, since a pupil suggested himself as group "secretary." This status places him in a position of power in comparison with the other pupils. Indeed, the status of secretary grants the pupil a part of the adult's authority; he becomes her substitute, seizes some of her powers.

This pupil's democratic initiative seems to have made other pupils in the group aware of the democratic situation inherent in P4CM. Indeed, from this moment on, the class "for many weeks" (31-10) turns towards what we might call "search for and development of the limits and rules of CI."

Next, the pupils introduce rotation—aimed we assume at equality of opportunity, and to make sure that the action is not monopolized by a few: "almost at every meeting, a new pupil names him/herself secretary to the group" (10-31). In such a context of rotation, the vertical hierarchy that risked being established among the pupils is canceled and becomes definitively horizontal. The hierarchy is generally not singular any more, but plural; the equality, generally no longer utopian but real. Each person's temporary power is accepted, on the one hand because it is horizontal (among pupils) not vertical (teacher vs. pupils), and on the other hand because it is rotating (each in turn has the opportunity to be secretary) (see Méard, 1995).

With equality of opportunity, we can suppose that it is the equality of rights that is at stake, thus setting up two occurrences related to the democratic experience: 1) the introduction of rules establishing equality of opportunity, born out of an inequality of rights, and 2) the pupils' regular evaluation of the new situation with a view towards greater stability and improved functioning of the group. In short, during this stage in the setting up of the democratic process—which is the longest, lasting until 03-13—the class group seems to function in the manner of a micro-society in the process of democratization. The power and negotiation play has the same stakes and develops in the same way—that is, marked by contradictions: "members of a subteam mutually reinforce each other ... other pupils oppose their own positions" (11-14); "very broad participation ... difficulty and impatience for some others" (11-28).

At this stage, the logbooks indicate that the cognitive skills used by the pupils seem mostly lower-order: arithmetic memorization (11-07) and summarization (11-21). This leads us to suppose that the second stage is one of transition involving a certain degree of cognitive development. We refer here to P. Freire's (1970) concept of "transitivity". This stage can be named: Awareness of individual rights. Setting up of democratic foundations by the pupils. The cognitive skills at play are lower-order.

From 03-13 to 03-27, a third stage becomes apparent. The teacher's logbooks mostly refer to pupils' higher-order cognitive skills: "the pupils justify their points of view, look for causes, . . . (03-13), "the pupils see relationships between concepts, criticize and question each other..." (03-20). Thus, the pupils' participation presumes not only their physical presence, but also a cognitive commitment—it no longer supposes only lower-order, but also higher-order thinking. We can therefore suppose that these pupils, after becoming aware of their individual rights, become aware that the CI is not a sequential succession of pupils, but rather a heterogeneous dynamic of interactions (with oneself, the other, the group, the common goal). In effect, it is essentially this awareness that leads to a confrontation of ideas and to the start of the reflexive process (Vygotsky, 1962). Also, as the fundamental stages in establishment of the democratic process take place, the teacher acquires experience in conducting philosophical sessions, provides cognitive conflicts for the pupils, and agrees to delegate power.

The logbooks also indicate a reversal beginning
on 03-20. Contrary to the previous situation, most of the pupils are committed to the CI: "only 10 to 15% of pupils are not interested in the discussion" (03-20). In short, the third stage brings out a second awareness, that of the need for individual commitment in order to maintain the first common project, which then leads to a second common project, the real and gradual contribution of the pupils to the community. We will call this stage Awareness of individual responsibility. Gradual pupil contribution on the cognitive and social levels.

The fourth stage begins to emerge from 03-27 to 04-17 when cooperative behaviors of another type become evident among the pupils. These behaviors seem to be marked more by respect and care for others: "The pupils share their answers ... and support each other" (03-27), "compliment each other's ideas" (04-08). It seems that an authentic cooperative experience begins to be established. To occur, CI requires both respect (towards oneself and others) and a climate of confidence (Lipman and al., 1980) as its fundamental conditions. Consequently, CI favors these elements (Daniel, 1990). Sharing compliments increases the climate of confidence and respect even more, and gradually leads to the development of self-esteem. In the fourth stage, awareness of inter-subjectivity and of the bien-fondé of pluralism seems to predominate. This new awareness appears as a direct consequence of the previous common project—that is, the contribution of the pupils to the CI. The testing or experimenting with peer cooperation (supporting, complimenting each other) that arises at this stage is a third common project, which in turn simultaneously transforms itself into a means towards an end that is not conscious—although very real—in the pupils, namely, the development of self-esteem (Lago, 1990). We refer to this stage as Awareness of self and others. Testing of cooperation. The cognitive skills involved are complex.

Between 04-17 and 05-18, the observations in the logbooks are mostly related to moral and complex cognitive aspects: care for others, critical thinking of pupils, and the capacity to argue dialectically. Although caring and critical thinking began to manifest in the previous stage, during this stage they were integrated into the pupils' discourse. In short, from mid-April onward, we find ourselves in a fifth stage centered on the cognitive and moral aspects of CI.

We can infer that the cooperative foundations of the group and their corollary, self-esteem, that developed in the previous stage, gave the pupils the momentum necessary to make their judgments more complex in the fifth stage (from 04-17 to 05-18). In the logbooks, we observe that at the moment when competition gives way to acceptance of others, the pupils seem more confident in their capacities, and therefore seem to be both more cooperative and more critical: "the pupils question and mutually assist each other in completing their points of view" (04-17); "the pupils develop strategies with peer assistance, verify their strategy and compare it that of the other teams" (04-24); "the pupils question each other and oppose their peers' points of view" (05-08); "the pupils discuss together" (05-18).

It is when the foundations of CI are well established that the members of the community can allow themselves to enter into dialectical argumentation. Criticism is no longer a rhetorical means aiming to ensure personal victory; it is a dialectical means aiming to deepen the concept or the problem studied in the P4CM session and to reach the common objective. At the fifth stage, the exchange between pupils changes to dialogue. Indeed, considering the higher-order thinking skills used by the pupils at this time, we are justified in maintaining, on one hand, that philosophical dialogue is present, and, on the other, that the CI exists with a view to the realization of a common objective (synthesis of previous common projects). We refer to this last stage as Development of dialectical argumentation. Actualization of the community of philosophical inquiry (CPI).

In summary, the pupils went through the following five stages in passing from the state of "listener" to "critical thinker," as well as in achieving the transition from a group to a micro-society, and then to a CPI:

**Stage 1: Observation.** Although the teacher may set up a new structure for mathematics learning, the group does not spontaneously modify its behaviors or its concept of the respective roles of teacher and pupils.

**Stage 2: Personal development.** In this stage, first individuals ("leaders") and then the group take charge of the social rules that the group will have to respect with regard to the common objective. The pupils' involvement is not yet evident on a social and cognitive level, but rather on the level of personal autonomy.

**Stage 3: Social development.** Now empowered to manage themselves, the pupils become aware of the possibilities of the community of inquiry, and work on transforming the classroom into a micro-society.

**Stage 4: Affective development.** In the fourth stage, the affective aspect appears as a cognitive and cooperative progress factor. Indeed, to establish itself as a mode, cooperation requires a climate of understanding, confidence, and mutual respect. This climate leads to the development of judgment (Lago, 1992), which in turn leads to the development of pupils' self-esteem. Only then will intersubjectivity, where "us" takes the place of "I," be at the center of the heterogeneous dynamic. The objectives in common become the common objective. Thinking becomes more complex.

**Stage 5: Moral and cognitive development.** The fifth stage is a consequence of the other stages: the
development of personal, social and affective aspects encourage the pupil to adopt moral behaviors and to involve himself/herself in dialectical argumentation. Dialectical argumentation is based on opinions held, and on real-life experience. It supposes active listening to the message of peers, and personal involvement in the dialogue. Criticism becomes a fount of progress, in the same way as mutual assistance. Thinking is complex and caring.

As illustrated by this group’s empirical data, the evolution of the pupils' cooperative behavior goes from group to micro-society to CI—a passage that parallels the evolution in the quality of the exchange between the participants, which goes from speech to communication to philosophical dialogue. Philosophical dialogue presupposes an evolution from lower-order thinking to critical thinking and to dialectical argumentation, which implies higher-order thinking skills and attitudes.

**Conclusion**

In brief, P4C and P4CM foster cooperation among pupils. The development of cooperative behavior within CI is intimately related to the development of critical thinking among peers. CI leads pupils to experiment with cooperation as an end (vs. a means to reach individual success). As illustrated by this study, the process does not focus on modern society’s values of speed, productivity and efficiency. On the contrary, it took these pupils some six months to enter into what Lipman and Sharp refer to as CPI, and to experiment with dialectical argumentation. Cooperation as an end develops in the medium to long term. Indeed, since the dynamic of cooperation itself, in order to become established in the group, presupposes that verification and recognition of independence must come to pass as a prelude to interdependence, subjectivity must predominate before intersubjectivity develops. Solidarity—the fundamental principle of any democratic community—is not innate; it requires the increasing ability to recognize both the existence of differences (gender, culture, religion, point of view) among those of the same community, and to attach less importance to these differences than to the similarities that unite these people (Rorty, 1979/1990, 1989).

In the CPI, participation is relational and plural; it is characterized by tolerance and critical sense. Tolerance is practiced when divergent points of view come to the surface. The foundations of tolerance are to be found in individual freedom, understood as responsibility, and in the recognition of pluralism as a result of individual freedom. Tolerance constitutes a minimal requirement for any community (Sharp, 1990). Tolerance is closely connected to the concern for others, which underlies respect; that is, respect for different points of view. This means active listening to what others have to say, with the intention to understand their meaning and to build a personal opinion from these elements (Waksman, 1998). It is in this situation that "we" becomes more important than "I," and that true communication becomes a human and social experience (Freire, 1970). As for critical sense, it is the favored means and end sought by the CPI, for it is in constructive criticism and self-correction that the development of person and community occur.

**NOTES**

1. Note that certain conditions must be respected, such as the teacher mastering the Socratic maenitic (Daniel, 1992).
3. For a large group, we assume that the activity on the agenda includes every pupil in the classroom. By homogeneous group, we mean a small group in which the characteristics of the pupils are similar (for example, a group comprised of all the pupils who are academically very good at mathematics, or a small group of pupils of the same gender). By heterogeneous group, we mean a small group of pupils whose talents, interests, difficulties, gender, cultures, etc., are diverse.
4. Anecdotal: the exchange is based on the development of anecdotes or on the pupils’ personal experiences. Monological: an exchange in which the pupils express themselves in monologue on a particular theme. In this type of exchange, the pupils hardly listen to each other. Each one pursues his/her idea without allowing for the influence of their peers’ points of view. Dialogical: an exchange based on interrelations. It presupposes the construction of ideas based on points of view expressed by peers when attempting either to find a solution to a common problem or to reach a common objective. Therefore, monological and anecdotal exchanges differ from those of a dialectical nature in that the latter presuppose a co-construction of pupils’ ideas in a dialectical, argumentative manner.
5. Here are some examples of possible behavior: Actively listening to others; sharing of one’s opinions; accepting the ideas of others; clearly expressing points of view; arguing calmly; showing tolerance towards others; helping each other out; accepting criticism without resentment; acknowledging the importance of the group.
6. Answer is the simplest form of intervention. It is expressed in one or a few words (Yes, No, I don’t know, etc.) We presume that an intervention supposing lower-order thinking skills is likely to appear spontaneously in discussions among pupils in this age group, whereas an intervention supposing higher-order thinking skills must be encouraged and stimulated by the adult session animator: Examples of lower-order thinking skills to guess; to give an example; to describe, etc. Examples of higher-order thinking skills: to criticize; to deduce; to make relationships; to draw up solution hypotheses; to justify one’s opinions, etc.

**References**


Cohen, E. (1986). *Designing Group Work: Strategies for the*
Heterogeneous Classroom. New York: Teachers College Press.
Inquiry takes many forms. Think of police investigating a drug dealer, as contrasted with an actor who is trying to understand the mind of the dealer in preparation for a part in a play or a film. Take the archaeologist who painstakingly sifts through the layers of an ancient burial site, as opposed to a governmental inquiry into whether the site should remain undisturbed. Or consider the cosmologist who scours the unimaginably distant reaches of space for evidence of the early universe, as contrasted with the cosmological inquiries of a philosopher or a theologian. Although all of these people are engaged in inquiry, their undertakings are richly various. Their projects demand different skills, tools and ways of proceeding: They are carried out with different aims in mind. They embody different guiding ideals.

Today I would like to examine the particular form of inquiry that we know as the philosophical Community of Inquiry. While I will say something about its aims, procedures and cognitive and discursive practices, I want to focus upon the question of what we should take as its guiding ideal. A great deal has been written about the other attributes of the Community of Inquiry, and there is a fair amount of agreement about them. Yet things are not so clear when we ask about its guiding ideal. It is not even obvious that the Community of Inquiry sets one ideal above others, rather than giving life, on equal terms, to the many ideals that may be embodied in community and inquiry. Although there is always room for dialogue and disagreement about such a weighty matter, we do need a "working answer" to the question of ideals. For, beyond a certain point, we cannot claim to know what we are doing in Philosophy for Children if we are unclear about our larger purposes, or lack even a provisionally validated answer to the question of what, fundamentally, the Community of Inquiry is all about.

I am going to suggest that we may take liberty as our guiding ideal. Among other things, this means granting liberty a special place in the kingdom of ends. It means taking liberty as that ideal which the others serve in the Community of Inquiry—somewhat as the ideal of truth serves justice when we come to a court of law. It does not, of course, imply that we should set aside other ideals that the philosophical Community of Inquiry may project. Once we go down this path, we will be able to see more clearly why it is all too limiting to regard Philosophy for Children as just another thinking-skills program. It is not an alternative to other attempts to encourage lateral, critical or metacognitive thinking in the classroom. Nor should philosophy a la Philosophy for Children be seen as a fledgling subject—a hopeful addition to the normal school curriculum. Although that view is sometimes advanced, I have come to believe that it involves a category error. The philosophical Community of Inquiry is a model of our deliberative life in community, in so far as that life is humanly liberating. This means that it provides a template for the educational process in its most general form, rather than for any one subject in particular. Philosophy, as it is practiced in Philosophy for Children, is an educational form of life rather than a subject of study. On the view to be advanced here, it is a form of life that gives expression to the deepest purposes of education, which find their fulfillment in liberty.

It is hardly surprising that important human activities appeal to deeply philosophical ideals. When it comes to those activities that center on inquiry, we encounter the ideals of knowledge—as in scientific inquiry; truth—as in a coroner's inquest; and justice—in the administration of civil and criminal law. Other ideals to which inquiry may appeal include peace—as in diplomatic explorations aimed at detente, for example, or in the intellectual inquiries sponsored by a body such as UNESCO; and welfare of other kinds—as in investigations carried out by the World Health Organization and the environmental detective—work of an organization such as Greenpeace.

Guiding ideals are properly conceived as projections from our own efforts. They are projections that give larger meaning and general direction to our projects. When in science we seek to establish a hypothesis, or in law to achieve a just verdict, or in a commis-
I draw attention to these differences only to acknowledge that, in a very practical sense, there can be many different answers to the question of what we are hoping to accomplish through our efforts. I also take it, however, that this happens because we are looking only at mediately aims and objectives, and not at what most fundamentally we are trying to achieve. When we attempt to answer that question, we are likely to cut through these differences, and find ourselves on common ground. For when we look at the project and ask what we are most fundamentally trying to achieve, it seems to me that we are inevitably drawn to those things that are being nurtured in the Community of Inquiry. It is from the things that develop in the Community of Inquiry, and what those developments portend, that we can hope to recover our deeper purposes, and most clearly project our guiding ideals.

While there are many different ways in which we could attempt to describe developments in the Community of Inquiry, we need to see these developments in the context of its general dynamics if we are to understand how the Community of Inquiry could be a force for any kind of growth or development that we might hope to achieve. When we attempt to do so, we are immediately struck by a seemingly paradoxical fact: participants in a Community of Inquiry are learning to think for themselves by learning to think together. Or rather—to begin to resolve this conundrum—those who learn through participating in a Community of Inquiry become so immersed in the communicative dynamics of conjoint inquiry that its various practices come to be mirrored in their individual conduct. For example, participants who grow accustomed to giving others reasons for what they say come to seek reasons for themselves. Participants who become used to considering the diverse opinions brought into discussion by others, begin to look beyond their own cherished beliefs and their own first thoughts for other possibilities. And participants whose emotions become tempered through learning to respond thoughtfully to others, come to react to their own thoughts and feelings in more enlightened ways.

Matthew Lipman and others have provided us with a theoretical understanding of these dynamics in terms of Vygotskian developmental psychology and the social psychology of George Herbert Mead, and while this would provide an alternative path to my conclusion, I don't intend to take it here. Instead, I will begin by merely indicating the kinds of dispositions and abilities that develop in the Community of Inquiry. Since this is also well-trodden ground, and my purpose is simply to gather together a short list of developmental outcomes that can help us to establish our philosophical bearings, I will present them in the briefest possible terms. In line with what I have said about the dynamics of the
Community of Inquiry, I have divided the outcomes into two groups:

1. The Community of Inquiry develops the participants' capacities to think for themselves. This includes:
   - developing reflective attitudes towards prevailing beliefs and values (becoming more questioning, thoughtful, and sensitive to meaning)
   - becoming more disposed to explore alternative possibilities (becoming more imaginative, searching, and flexible in our thinking)
   - building a capacity for sound independent judgment (becoming more judicious, discerning and reasonable in what we think and do).

Having described the Community of Inquiry, I want to draw attention to the fact that this whole array of outcomes forms a natural gestalt, which manifests a form of rationality. As rationality, it is neither individual as opposed to social, nor cognitive as opposed to affective; and it is neither critical as opposed to creative, nor logical and scientific as opposed to empathetic and literary. It is a form of rationality that transcends these oppositions by achieving their synthesis. It is a form of rationality that is humanly whole.

Given that we are looking at a form of rationality, I want to call to mind the enduring link in the history of philosophy between freedom and reason. It is a theme made famous by Kant, but the connection can be found in philosophers as diverse as Descartes, Locke and Spinoza. In making this connection, philosophers have had various conceptions of reason and freedom in mind, of course, and often enough they have been wont to stress the kinds of dualities and oppositions noted above. Yet the connection has been too often made to be lightly overlooked, and it entreats us to consider what kind of freedom flows from the manifestations of reason that we find in the Community of Inquiry. It should come as no surprise that we can seek guidance in this matter from Dewey, who had so much to say about both community and inquiry that has come to inform Philosophy for Children. "Liberty," says Dewey, "is that secure release and fulfillment of personal potentialities which takes place only in rich and manifold association with others." Two features of this statement deserve attention. First, Dewey takes liberty to be a release and fulfillment of our potentialities—not the mere absence of constraint (so-called negative freedom), but that positive freedom through which our abilities develop and achieve their consummation in an enlarged and humanly fulfilling existence. And secondly, he views liberty as something that occurs only in abundant association with others. The Community of Inquiry mirrors Dewey's conception of freedom in both respects. It is a reflective community in which participants are attentive to one other's questions, views, ideas, suggestions, explanations, reasons, criticisms, disagreements, feelings, and rights. It is a community in which people can learn together to explore matters of deep human concern—where they can examine their beliefs and values, and deepen their understanding of things. It is a community in which, as we saw, a whole host of skills, abilities and dispositions tend to develop through its deliberative and communicative practices. It is, therefore, an enabling community. It embodies and nurtures a form of rationality through which people—both jointly and severally—can come into their powers. In a word, it is a community of liberation.

Freedom in this sense is not so much a destination as a journey. It is of a piece with, if not identical to,
that "continuous process of growth" which Dewey equates with education. This is precisely why the Community of Inquiry provides what I called a template for the educational process in its most general form. Since education is a continuous process of growth, or of liberation, and the Community of Inquiry is a community of liberation, we can see why the Community of Inquiry provides a model of the educational community: If education is growth, it is also liberation, and the liberating community is an educational one. It follows from this that the fundamental telos of the Community of Inquiry is freedom or liberty; and in as much as our guiding ideals are projections of our practices, then liberty must also be its guiding ideal.

As I suggested at the beginning, this does not mean that other ideals are unimportant. In an excellent discussion of classroom practice in the Community of Inquiry a few years ago, Susan Gardner suggested that learning to "track truth" was central to the Community of Inquiry. While I would add outcomes such as "develop insight" and "create meaning" to the focus on truth, the point I wish to make is that the ideal of truth, however important, is one that serves an educational purpose in the Community of Inquiry. And that educational purpose is nothing other than the one that lies at the heart of education; to continuously develop our potentialities for that flourishing life which is liberty.

ENDNOTES
1. A form of inquiry is characterized by its aims, methods, procedures and guiding ideals, as well as by the kinds of cognitive and discursive practices with which it is associated. To take just one example, trial by jury is a form of inquiry that takes justice as its guiding ideal. This does not exclude appeals to ideals such as truth and welfare; but these other ideals are subservient to justice in the courts. The immediate aim of a jury trial is to achieve a verdict—either guilty or not guilty—based on evidence and according to the law. A jury trial is a form of inquiry in which different members have set functions and responsibilities: the judge interprets and administers the law; legal counsel present the case for the prosecution and for the defence; the jury considers the evidence and arrives at a verdict. The courtroom is an adversarial arena in which the examination of witnesses by legal counsel involves a quite different form of discourse from that between the judge and legal counsel, which is different again from that among jurors in the jury room, where collaborative decision-making is generally desired. The conduct of a trial involves ordered formal procedures, such as entering a plea, calling a witness, taking an oath, raising an objection and delivering a verdict. The proceedings are also bound by complex rules and conventions. They appeal to established criteria, such as 'being the truth', 'being admissible', 'having legal precedent', and 'being beyond reasonable doubt'. Although rhetorical skill has its place in the courtroom, the mode of thought is predominantly critical, and involves such things as assessing the reliability of witnesses, clarifying statements, drawing out the consequences of claims, exploring inconsistencies in testimony, forming and testing hypotheses about motives, and weighing the evidence.
2. A "working answer" is an answer to a question that is used as a guide to practice—through which that answer is also subject to test and possible revision. It is akin a "working hypothesis" in science.
3. See footnote 1 above, and reiteration of the same point with a different example in footnote 4 below.
4. The 1945 preamble to the Constitution of UNESCO mentions ends such as "full and equal opportunities for education for all," "the unrestricted pursuit of objective truth," "free exchange of ideas and knowledge" and "mutual understanding," as well as the ends of "international peace and of the common welfare of mankind." However it is worth noting the main statement of the purpose of the organization under Article 1. Purposes and functions:
The purpose of the Organization is to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations.
As this passage makes clear, UNESCO is charged with promoting educational, scientific and cultural collaboration as a means to an end. More significantly, for our purposes, some ends are envisaged as a means to others. Thus, on a natural reading of Article 1, furthering respect for justice, for the rule of law, for human rights and freedoms, is a means to "peace and security," for the purposes of UNESCO. Here is an example, then, of one end being set before others, which are construed as making their contributions to it. The question that we need to ask is whether a similar arrangement of ends as a means to liberty (or indeed some other end) might give proper expression to the efforts of people working in the field of Philosophy for Children.
6. Spinoza says that "a free man" is "one who lives according to the dictate of reason alone." (Ethics, edited by G.H.R. Parkinson (J.M. Dent, 1989), p. 186.) According to Locke, "If to break loose from the conduct of reason, and to want that restraint of examination and judgement which keeps us from choosing or doing the worse, be liberty, true liberty, madmen and fools are the only free men." (An Essay Concerning Human Understanding, Book II, Chapt. XXI, Sec. 51.) And Descartes says, "I move more freely towards an object in proportion to the number of reasons which compel me; for it is certain that my will is set in motion with greater ease and spontaneity." (Letter to Mersenne, Oeuvres de Descartes, edited by C. Adam and P. Tannery (Leopold Cerf, 1897-1913), pp. 381-382.)
10. Susan Gardner ends by saying that "the facilitator ought to feel a constant source of tension as a result of being continuously pulled between the two ideals of 'truth' and 'participant autonomy'" (Ibid, p. 46). Presumably she is pointing to the tension between following the inquiry where it leads and the many pulls and tugs of participants who are only just beginning to learn how to do so. What Gardner refers to as 'participant autonomy' is not, of course, freedom in the sense in which it is under discussion here. It may not be that the truth alone will set us free, but there is no tension between truth and freedom in the sense of freedom under discussion.
Creativity in the Philosophical Thinking of Children

Gareth B. Matthews

A few years ago I visited a combined section of seventh graders in the Junior High School in my hometown of Amherst, Massachusetts. These kids were doing a section on ancient Greece that included a bit about classical philosophy. My job was to demonstrate what ancient philosophy was all about by engaging them in reflecting on some issue that interested classical philosophers.

When I am asked to do that sort of thing, I usually bring to the school a short philosophical text. This time I brought in, among other texts, a passage from Lucretius’s *De rerum natura*. I noted that Lucretius was a Roman, not a Greek, that he wrote in Latin, and that he lived in the first half of the last century before Christ, some three hundred years after the death of Socrates. Still, I went on to explain, there is some reason to think that the argument I was about to present was not original with Lucretius but was much older. Indeed, I said, it was very likely something that went back to the ancient atomists—Epicurus, Leucippus, and Democritus, philosophers who did belong to the ancient Greek world of the fifth and fourth centuries BC. Here is the passage from Lucretius that I presented to those seventh-graders:

Suppose for a moment that the whole of space were bounded and that someone made his way to its uttermost boundary and threw a flying dart. Do you choose to suppose that the missile, hurled with might and main, would speed along the course on which it was aimed? Or do you think something would block the way and stop it? You must assume one alternative or the other. But neither of them leaves you a loophole. Both force you to admit that the universe continues without end. Whether there is some obstacle lying on the boundary line that prevents the dart from going farther on its course or whether it flies on beyond, it cannot have started from the boundary. With this argument I will pursue you. Wherever you may place the ultimate limit of things, I will ask you: "Well then, what does happen to the dart?" The upshot is that the boundary cannot stand firm anywhere, and final escape from this conclusion is precluded by the limitless possibility of running away from it. (Book I, trans. R.E. Latham)

I had a brief discussion with those junior-high kids about reduction to absurdity, or indirect proof. I offered them, as an example of a reductio, an argument for the conclusion that there is no greatest cardinal number and we discussed that for a few minutes.

I then pointed out that the argument from Lucretius is also a reductio. I put on the board, "To prove: (1) The universe is infinite." I explained that we must now try assuming the contradictory of what we want to prove, namely, (2) The universe has a limit, or boundary. I made sure the kids understood that the point was to show this statement absurd. Since a philosopher’s favorite kind of absurdity is self-contradiction, we should try, if possible, to show that

(2) The universe has a limit, or boundary is self-contradictory. If we can do that, I said, then we have...
certainly shown that what we set out to prove is true, indeed, is necessarily true.

We could think of the alleged limit of the universe, I suggested, as a very thin membrane, like the skin of an inflated balloon. To make things a little more dramatic I proposed that we think of Lucretius's dart-thrower as a very muscular spear-thrower with a super-heavy spear. We could even think of the spear-thrower as taking several steps back from the boundary of the universe so as to be able to get a running start. Then as he ran hard toward the supposed outer limit he would push the heavy spear ahead of him and give it a final heave just as the tip of the spear reached the outer membrane of the universe. What would happen?

Lucretius tells us that there are only two possibilities. Either the spear would be stopped cold at the infinitesimally thin outer membrane of the universe, or it would cut through. If it did cut through, that would, of course, mean that there was empty space beyond the alleged boundary and therefore, since empty space is also part of the universe, the alleged boundary was not the boundary of the universe after all. Alternatively, if it were stopped cold, there would have to be a barrier, perhaps a stone, or a steel wall, beyond the boundary, to stop it. To stop the spear this barrier would have to have some thickness. Whatever its thickness, whether ten feet or two inches, this distance would have to extend beyond the alleged boundary. And so, again, what we took to be the boundary would be no boundary at all.

The contradiction Lucretius was looking for is then this:

(3) The boundary of the universe is no boundary. Having seen that there could be no boundary to the universe, we are meant to conclude, with Lucretius, that the universe is infinite and unbounded.

I muttered to these kids something about non-Euclidian geometries and how they were not thought of until the 19th Century. Sticking to old-fashioned geometry, the kind they had learned in geometry class, I asked them whether Lucretius's argument is convincing. "Can we," I asked, "without mounting a space probe that would, say, put a telescope into outer space, just sit back in our philosophical armchairs and prove conclusively, as Lucretius thought we could, that the universe is infinite?"

I should say that I have often discussed this argument with college students. It is a favorite of mine. Some of the college students I have discussed this argument with have expressed admiration for the simplicity of the argument. But the argument hasn't seemed to engage them very directly. They may have wanted to get it down correctly in their notes, for the exam. But few have been gripped by it.

The seventh-graders in that Junior-High class took it more seriously. "Remember," I reminded them, "this argument is meant to be a reductio, a reduction to absurdity. Has Lucretius really shown that it is absurd, in fact self-contradictory, to claim that the universe has an outer boundary? Or is there some possibility for the spear that Lucretius doesn't mention?"

"When the spear gets to the boundary," one of the kids piped up, "it may be held back, not by a wall or anything, but by a sort of magnetic field."

"But the spear could be made of wood and stone," another kid replied quickly, "and then it wouldn't be affected by a magnet."

I complimented both kids on their contributions. "Lucretius certainly knew about magnets," I said, "because even Thales, the first philosopher, talks about them." I mentioned the passage in Aristotle's De anima where Aristotle says, "Thales, too, seems,
from what they relate, to have supposed that the soul was something kinetic, if he said that the [Magnesian] stone possesses soul because it moves iron." (A2, 405a19)

"But Lucretius would also have realized," I went on, "that, whereas iron is attracted by a magnet, stone and wood are not. So the possibility of running against the boundary with stone-headed wooden spear needs to be dealt with."

"I said "something like a magnetic field," put in the first child.

"Good," I said, "that's very important. We would have to think of something affecting a stone and wooden spear in the way a magnet affects steel. But that is certainly quite imaginable. For the reductio to work it would have to be inconceivable that the spear be stopped even when there was nothing beyond the boundary to stop it. So the idea of something like a magnetic field is certainly damaging to the argument."

Other hands were up.

"Suppose it went like this," one kid suggested.

"Suppose the spear gradually disappeared as it was pushed into the boundary. So first the tip of the spear would disappear, then, slowly, the whole head, and finally, gradually, the shaft."

"Where would it go?" one child wanted to know.

"I donno; it would just disappear," said the other.

"Can things just disappear?" I asked.

There was some discussion of this point. I think I may have mentioned to the class that the ancient atomists—Democritus, Leucippus, Epicurus, and Lucretius—supposed, indeed had arguments to try to prove, that no matter, not even a single atom, is ever created or destroyed. "If it is inconceivable that any matter be destroyed," I pointed out, "then the disappearing spear would have to be explained in some way."

"Suppose," put in another kid, "that just as the spear was disappearing over here," he gestured to what was supposed to be the boundary of the universe on his right side, "it began to re-appear again on the opposite boundary," and he pointed to the boundary on his left side.

"That's a really neat suggestion," I said; "that does seem to be conceivable. If it is, the reductio is in trouble."

No doubt the child who proposed this "wrap-around" solution was quite familiar with video games in which a plane or tank gradually goes off the screen on the right and, at the same time, gradually emerges on the left. But, whatever its origin, the suggestion is an excellent one. To be sure, we had as yet no explanation for why the spear would disappear on one side and reappear on the other. And one could certainly raise questions about the persistence of the spear through this peculiar transformation. But, on the face of it, we had a conceivable outcome that destroys Lucretius's reductio.

We went on to discuss other issues in that class. But the thing that made that class unforgettable for me was the "wrap-around" solution to Lucretius's ingenious argument for proving the infinity of the universe; it remains, I think the best response to this argument that I have encountered in 35 years of teaching philosophy.

A few months before visiting that seventh-grade class, I conducted a philosophy demonstration class with a group of a dozen fifth-graders from a school in St. Paul, Minnesota. I am always nervous about conducting demonstration classes because I fear the children may lose their spontaneity and become self-conscious in the presence of an audience of strange, and strangely silent, adults. The danger that the kids will freeze up is even greater if, as was the case on this occasion, I had no chance to work with them beforehand to develop a relationship of trust.

On this occasion I took certain steps to minimize the distraction of the adult audience. For example, I turned the semicircle of chairs toward me and away from audience so that I would be the only one who might get stage fright from looking out over the sea of adult faces.

As it turned out, however, the children were wonderfully spontaneous and quite uncowed by the adult audience observing them. I had chosen for discussion the story of the ring of Gyges in Plato's Republic. This is the passage we read together:

Gyges was a shepherd in the service of the ruler of Lydia. One day there was a violent thunderstorm, and an earthquake broke open the ground and created a crater at the place where Gyges was tending his sheep. Seeing the big hole, Gyges was filled with amazement and went down into it. And there, in addition to many other wonders of which we are not told, he saw a hollow bronze horse. There were window-like openings in it, and peeping in, he saw a corpse, which seemed to be of more than human size, wearing nothing but a gold ring on its finger. He took the ring and came out of the crater. He wore the ring at the usual monthly meeting that reported to the king on the state of the flocks of sheep. As he was sitting among the others, he happened to turn the setting of the ring towards himself to the inside of his hand. When he did this, he became invisible to those sitting near him, and they went on talking as if he had gone. He wondered at this, and, fingering the ring, he turned the setting outwards again and became visible. So he experimented with the ring to test whether it indeed has this power—and it did. If he turned the setting inward, he became invisible; if he turned it outward, he became visible again. When he realized this, he at once arranged to become one of the messengers sent to report to the king. And when he arrived there, he seduced the king's wife, attacked the king with her help, killed him, and took over the kingdom.

Plato adds this comment:

Let's suppose, then, that there were two such rings, one worn by a morally good person and the other by a morally bad person. Now, no one, it seems would be so good as to stay on the path of morality, or stay away from the other people's property, who could steal without danger of being caught, break into people's houses without anyone knowing it, and do other things that would make that person a god among human beings. Rather the actions of a formerly good person now given the ring of Gyges would be no different from those of the morally bad person; both would follow the same path. This is a proof that no one really wants to be morally good; those of us who do
moral good things act that way simply to be praised by others and so as not to have to worry about being caught doing something bad. (Republic II, 359c-360c, Grube trans., slightly adapted)

"Well, what do you say?" I asked the kids, after we had finished reading this passage; "if you had the ring of Gyges, would you steal whatever you wanted?"

Most of the children admitted that, if they had the ring of Gyges, they would probably do more bad things than they do now. But one girl, let's call her "Anna," had a special observation of her own to add.

"Sure, most of us would do some bad things," admitted Anna, "things we wouldn't have done otherwise; but then with a magic ring like that some of us would also do some good things we might not otherwise do."

I asked Anna what she had in mind.

"Well," she said, "it could be fun to do something nice for someone who wouldn't be able to find out who had done the good deed."

Anna had a good point. Some people like to give gifts anonymously. To be sure, some of those people who give gifts anonymously hope that others will eventually find out who the donor was and then, when eventually they do find out, will credit the donor with special altruism. But sometimes people give anonymous gifts and genuinely don't want to be discovered as the benefactor. Having the ring of Gyges would give us the chance to be anonymous donors, as well as anonymous thieves.

I don't think Anna's point is an earth-shattering one. But it is very thoughtful and it may help us think more clearly about human motivation. I don't recall hearing anyone make this point before in the many discussions I have had of the Ring of Gyges with college students.

Another line of thought stands out in my memory of that Minnesota fifth-grade discussion class. It was started by one of the boys. Let's call him "Adam."

Adam wanted to know in more detail how the ring would work. If you were using a walking stick, would that, too, become invisible, he wanted to know. Or would the walking stick visibly walk along by itself, apparently unsupported by any person or thing?

Presumably your clothes would become invisible, too, Adam went on. "But what about, say, a TV set you were trying to steal?" he asked. "Would that become invisible just because you were carrying it, or would people see a TV set float across the room and out the door?"

Again, Adam's question was both imaginative and original. In the many discussions of the Ring of Gyges I have participated in, I don't recall anyone ever raising it before.

Adam's question is also philosophically significant. No matter how much power we let Plato assign to the Ring of Gyges, there will always be the question of whether the ring could be a guarantee that one's evil deeds will go undetected. Then even if the Ring made it possible to get the TV set home undetected, the set would have to become visible again at home, or else there would be no value in having stolen it. Someone might see it and recognize where it came from. When we start imagining the details of Gyges's life, the veil of invulnerability fades and Plato's thought experiment becomes more questionable, no doubt more questionable in ways that Plato would have been glad for us to see, and to discuss.

For my final two examples of creativity in the philosophical thinking of children I shall turn to a class I conducted in an elementary school in Newton, Massachusetts, about 20 years ago. The first discussion I want to report on is one of my all-time favorites. I used it to begin the first chapter of my book, The Philosophy of Childhood. In the book I intersperse quotations from the children with comments of my own. Here I am going to give you a section of the original transcript, without interspersed comments, though I shall make some comments at the end of the transcript. I should say that all the kids in this discussion were either nine or ten years old at the time, all, that is, except one, who was eight. They were third and fourth-graders.

Sam: "The universe is everything and everywhere. But then, if there was a big bang, what was the big bang in? . . . But there has to be an end to the universe." Nick: "That's not true."

Me: "But does there have to be a beginning?"

Ursula: "Yeah, there could be a beginning of the universe . . ."

Sam: "The universe is everything. Everything couldn't just go BLAH!"

Matt: "Maybe the universe goes on forever."

Me: "Do you think it might go on forever in time, too? Go back and forward forever, too? So that there would be no beginning or end to the universe?"

Nick: "How did the universe start?"

Sam: "It was just there!"

Nick: "There has to be a beginning to the universe. Otherwise it wouldn't be here."

Me: "Let's see if we can deal with Nick's reasoning. Nick says there has to be a beginning to the universe or else there wouldn't be anything there."

Sam: "There had to have been something for the universe to appear on. The universe is what everything appeared on. It's not really anything. It's what other things started on."

Me: "So there always has to be a universe?"

Sam: "Yeah, there always has to be a universe."

Me: "How many people think that there always was a universe — no beginning to the universe?" [All hands up except Nick's and two waverers.] How many people think there was a beginning to the universe? Only Nick's hand goes up.] So Nick is the only one who thinks there is a beginning to the universe. And Jeff, and, I'm not sure about Daniel—two of you--are not sure. The rest of you think there was always a universe.

Sam: "Yeah, that's what everything started on."

Me: "So if there was always a universe, there was no first time, either."

Sam: "There was a first time for certain things, but not for the universe. There was a first time for the earth, there was a first time for the stars, there was a first time for the sun."
But there was no first time for the universe."

Me: "Can you convince Nick that the universe had to always be there?"

Sam: "What would other things appear on? What would the universe have appeared on?"

Nick: "That's what I don't understand. But the universe has to have started out. If something doesn't start out, that thing isn't there."

Sam: "If the universe started, what would it start on?"

Nick: "That's what I don't get."

Ross: "If it started on vast blackness, then that's just the universe then. The universe is vast blackness."

That's the end of the transcript. I still find that discussion spectacular, even after all these years and after many other discussions with many other groups of reflective kids. I still find very appealing Sam's idea that the universe is what everything else appears on. I even like the idea that he said "on" rather than "in."

Plato's idea of the receptacle is the idea of what all physical things appear in. But a receptacle is a container, something that walls things in and walls things out. But what does Plato's receptacle wall out? And from what does it wall in the things it contains?

Sam's idea of the universe as what other things appear on sets aside the boundary question. Perhaps there is in Sam's idea an unwelcome suggestion that the universe is two-dimensional. But I think there are ways of counteracting that suggestion.

I also admire the tenacity with which Nick held on to his claim that everything there is has a beginning. "If something doesn't start out," he insisted, very appealingly, "that thing isn't there." But equally, or perhaps even more, I admire Nick's forthrightness and honesty. Asked what the universe could have started on, if it had had a beginning, he replied candidly, "That's what I don't get."

This discussion still seems to me a virtuoso performance. It would be a virtuoso performance for college students. It certainly was a virtuoso performance for third and fourth-graders.

I have included this sample of creativity in the philosophical thinking of children partly for its own sake, but partly to present a contrast. Some months after the above discussion took place, I had another series of meetings with these same kids. I decided to test the limits of what could be discussed with them. Among the things I tried out were Zeno's Paradoxes. I began with Achilles and the tortoise. I wrote a dialogue in which a couple of kids discussed the Achilles paradox and expressed bafflement about it. I photocopied copies of my story and passed them around in the discussion group. We read the story together and discussed it for a while. Without going into details I can say that most of the kids seemed to appreciate the force of the paradox and, together, we moved to a good thing to say about it.

I decided to try the Paradox of the Arrow next. Again, I wrote a story to present the paradox. I took over a formulation of the argument from Gregory Vlastos. The crucial bits of reasoning were these two arguments:

**Argument A:**
1) At each moment of its flight the arrow occupies a space exactly equal to its own size.
2) Whatever is true of something at each moment of a period of time is true of it throughout that period of time.
Thinking: The Journal of Philosophy for Children, Volume 15, Number 1

Therefore
3) Throughout its flight the arrow occupies a space exactly equal to its own size.

**Argument B:**
3) [As above]
4) Whatever occupies a space exactly equal to its own size is at rest.
Therefore
5) Throughout its flight the arrow is at rest.

I had discussed this reasoning many times with college students. In a college class I could expect that some student would eventually object to Argument A on the ground that it commits the fallacy of composition. A student who did not have the concept of the fallacy of composition might nevertheless object on the basis of analogies. "You might as well say," some student might put the objection, "that a line is short because it is made up of short segments."

As for Argument B, I could expect that some bright student would eventually make the point that neither motion or rest takes place at a time. For a body to be at rest is for it to occupy the same place for every moment between some time t and some later time t*. Similarly, motion is change of place over time, not at a single time.

The children in the Newton class offered neither of these two objections, however. Instead, they focused on premise (4). "You always occupy a space exactly your own size," one of them said; and several others immediately agreed. "You could be riding in a bus, or an airplane, or anything," the first child went on; "you always occupy a space exactly your own size."

I was stunned. None of my college students had ever raised that objection. And it had certainly not occurred to me. I suddenly realized that Gregory Vlastos's attempt to offer an attractive reconstruction of Zeno's reasoning for the absurd conclusion that an arrow in flight is at rest simply is not attractive in the right way.

Although I have made good use of the previous dialogue on the beginning of the universe—as I just mentioned, I start the first chapter of The Philosophy of Childhood with it—I have made very little use of this discussion of the Arrow. When I looked back through my files I couldn't even find a transcript, or a copy of the story I had written to present the paradox. I think I must have felt somewhat ashamed that those kids were able to show inadequate a reconstruction of Zeno's argument that I had felt so good about. But I shouldn't have responded in that way. I had learned something important from those kids that day. It's something I have never forgotten.

When I'm asked about the Paradox of the Arrow these days I offer this much more modest reconstruction:

**Argument C:**
6) At each moment of its flight the arrow is at rest.
7) Whatever is true of the arrow at each moment of its flight is true of it throughout its flight.
Therefore
8) Throughout its flight the arrow is at rest.

This argument seems a lot less interesting than the old one. It is much more obviously open to the two objections I mentioned a moment ago. I still have the nagging feeling that there must be a more interesting way of formulating Zeno's argument, something more like the Vlastos reconstruction. But I don't know how to do it. Thanks to those kids in Newton I see that a key premise in the Vlastos reconstruction is too blatantly false to produce the needed air of paradox.

* * *

I have often made the comment that, when one gets a group of children thoroughly engaged in thinking about a philosophical question, the kids simply re-invent the history of philosophy. What I mean by that comment is that the philosophical reasoning of children often resembles reasoning to be found in Plato, Descartes, Bertrand Russell, and the other great thinkers in the history of philosophy.

There are, however, ways in which my talk of children re-inventing the history of philosophy is misleading. It may suggest a kind of automatic recapitulation—as if children were programmed to make the same moves that the philosophical greats had already made before them. Again, it may suggest that there is nothing fresh or inventive about children's philosophy. Why pay serious attention to a child's thinking if it only echoes Aristotle, or John Locke, when we can enjoy the original, in stereoscopic high fidelity, by reading Aristotle and Locke themselves?

I have deliberately set out tonight to counter those negative suggestions. My theme has been creativity and originality in the philosophical thinking of children. I have given you four examples of philosophical reasoning in children that has not just echoed or recapitulated the thought of some well-known philosopher but has actually moved the discussion forward.

I don't see children as doing pre-philosophy, or proto-philosophy, or as merely recapitulating reasoning already to be found in the history of our subject. Rather I see them as joining the great philosophical dialogue and making their own original contribution to it. When I say that I have personally learned something from each of these discussions I have presented tonight, I am not expressing an inappropriate humility. What I say is simply true. My own thinking about these issues has been influenced by the contributions these children have made to our common dialogue. I hope yours has been influenced as well.
Nietzsche on Philosophy and Philosophers

That individual philosophical concepts are not anything capricious or autonomously evolving, but grow up in connection and relationship with each other; that, however suddenly and arbitrarily they seem to appear in the history of thought, they nevertheless belong just as much to a system as all the members of the fauna of a continent—is betrayed in the end also by the fact that the most diverse philosophers keep filling in a definite fundamental scheme of possible philosophies. Under an invisible spell, they always revolve once more in the same orbit; however independent of each other they may feel themselves with their critical or systematic wills, something within them leads them, something impels them in a definite order, one after the other—to wit, the innate systematic structure and relationship of their concepts. Their thinking is, in fact, far less a discovery than a recognition, a remembering, a return and a homecoming to a remote, primordial, and inclusive household of the soul, out of which those concepts grew originally. Philosophizing is to this extent a kind of atavism of the highest order. The strange family resemblance of all Indian, Greek, and German philosophizing is explained easily enough. Where there is affinity of languages, it cannot fail, owing to the common philosophy of grammar—I mean, owing to the unconscious domination and guidance by similar grammatical functions—that everything is prepared at the outset for a similar development and sequence of philosophical systems; just as the way seems barred against certain other possibilities of world-interpretation. It is highly probable that philosophers within the domain of the Ural-Altaic languages (where the concept of the subject is least developed) look otherwise "into the world," and will be found on paths of thought different from those of the Indo-Germanic peoples and the Muslims: the spell of certain grammatical functions is ultimately also the spell of physiological valuations and racial conditions.

So much by way of rejecting Locke's superficiality regarding the origin of ideas.

***

I insist that people should finally stop confounding philosophical laborers, and scientific men generally, with philosophers; precisely at this point we should be strict about giving "each his due," and not far too much to those and far too little to these.

It may be necessary for the education of a genuine philosopher that he himself has also once stood on all these steps on which his servants, the scientific laborers of philosophy, remain standing—have to remain standing. Perhaps he himself must have been critic and skeptic and dogmatist and historian and also poet and collector and traveler and solver of riddles and moralist and seer and "free spirit" and almost everything in order to pass through the whole range of human values and value feelings and to be able to see with many different eyes and consciences, from a height and into every distance, from the depths into every height, from a nook into every expanse. But all these are merely preconditions of his task: this task itself demands something different—it demands that he create values.

Those philosophical laborers after the noble model of Kant and Hegel have to determine and press into formulas, whether in the realm of logic or political (moral) thought or art, some great data of valuations—that is, former positions of values, creations of value which have become dominant and are for a time called "truths." It is for these investigators to make everything that has happened and been esteemed so far easy to look over, easy to think over, intelligible and manageable, to abbreviate everything long, even "time," and to overcome the entire past—an enormous and wonderful task in whose service every subtle pride, every tough will can certainly find satisfaction. Genuine philosophers, however, are commanders and legislators: they say "thus it shall be." They first determine the whither and for what of man, and in so doing have at their disposal the preliminary labor of all philosophical laborers, all who have overcome the past. With a creative hand they reach for the future, and all that is and has been becomes a means for them, an instrument, a hammer. Their "knowing" is their creating, is a legislation, their will to truth—will to power.

Are there such philosophers today? Have there been such philosophers yet? Must there not be such philosophers?

***

Gradually it has become clear to me what every great philosophy so far has been: namely, the personal confession of its author and a kind of involuntary and unconscious memoir; also that the moral (or immoral) intentions in every philosophy have constituted the real germ of life from which the whole plant has grown.

Indeed, if one is to explain how the abstrusest metaphysical claims of a philosopher really came about, it is always well (and wise) to ask first: at what morality does all this (does he) aim? Accordingly, I do not believe that a "drive to knowledge" is the father of philosophy; but rather that another drive has, here as elsewhere, employed understanding (and misunderstanding) as a mere instrument. But anyone who considers the basic drives of man to see to what extent they may have been
at play just here as inspiring spirits (or demons and kobolds) will find that all of them have done philosophy at some time—and that every single one of them would like only too well to represent just itself as the ultimate purpose of existence and the legitimate master of all the other drives. For every drive wants to be master—and it attempts to philosophize in that spirit.

To be sure: among scholars who are really scientific men, things may be different—"better," if you like—there you may really find something like a drive for knowledge, some small, independent clockwork that, once well wound, works on vigorously without any essential participation from all the other drives of the scholar. The real "interests" of the scholar therefore lie usually somewhere else—say, in his family, or in making money, or in politics. Indeed, it is almost a matter of total indifference whether his little machine is placed at this or that spot in science, and whether the "promising" young worker turns himself into a good philologist or an expert on fungi or a chemist: it does not characterize him that he becomes this or that. In the philosopher, conversely, there is nothing whatever that is impersonal; and above all, his morality bears decided and decisive witness to who he is—that is, in what order of rank the innermost drives of his nature stand in relation to each other.

—Frederich Nietzsche, from Beyond Good and Evil: Prelude to a Philosophy of the Future (1886).
Introduction of Philosophy for Children into the Montessori Curriculum

Juliette Christie

Philosophy has long been the stronghold of adults—of "white" male adults, in fact. Of late, however, a variety of philosophical voices have been raised to question not only the assumption that philosophy can be described from just one perspective (and its preferred paradigm), but that philosophy is the domain of the fully matured, or fully-functionally rational, mind. In this essay I will focus on the latter point as it bears on children. Philosophy is a deeply human endeavor in that it is one which fulfills human nature. (This is not to say that philosophy is necessarily restricted to humans; only that to be human is to be essentially capable of philosophy.) But philosophy is no more limited to the adult than is human existence. In other words I contend that because children are human, philosophy is significantly relevant to their being. Furthermore, if humans are not enabled to attend to (or are prevented from experiencing) their philosophical capacities as children, they will not develop into the well-rounded, whole, individuals they otherwise might become.

The project I touch on here is enormous. What I can provide in this essay is a sketch of two pedagogical approaches whose integration might serve admirably as a model in support of arguments for the rationale behind bringing philosophy to very young children, as well as of how this project can be successfully accomplished. The approaches I have in mind are those encapsulated in Maria Montessori's "Cosmic Education" (the "Montessori approach") and Matthew Lipman's Philosophy for Children.

I will say a bit more about the historical or formative reasons for the urgency of bringing philosophy to young children, as well as that urgency itself, before I set out sketches of Montessori's and Lipman's pedagogies. From this overview of their respective positions, set in the larger context of the need to bring philosophy to children, it will be a short hop to complete my case for the introduction of Philosophy For Children into the Montessori curriculum.

Philosophy, the Canon, and Children

Briefly put, philosophy is "love of wisdom." An extremely inadequate—but here sufficient—characterization of philosophy will describe it as an exercise of reason and imagination, of careful and structured contemplation of deep questions which may or may not permit of answers, but which are significant by their very nature and for the human struggle to understand which they offer. In one of the more progressive introductory philosophy texts, Robert Paul Wolff, sizes up not only the mystery of philosophy, but the obscurity of the discipline:
Thinking: The Journal of Philosophy for Children, Volume 15, Number 1

What do philosophers do? Oddly enough, that is a question philosophers have been asking for as long as there has been a discipline called philosophy. Indeed, "What do philosophers do?" is probably the most common philosophical question! But all this sounds like double talk, which is just what makes people nervous about philosophy in the first place. You all know what a doctor does; you know what physicists, historians, composers, and sanitation engineers do. Most of you probably even have some sort of idea of what microbiologists do. But philosophers are something else again. Philosophers ask questions—odd questions...

To date philosophy has been the province of universities and learned men. Philosophy courses are only rarely offered at the high school level, and then they appear as isolated electives, where ideas and history are fleetingly danced before the student in more or less lecture format. Regrettably, university students are largely either incapable of or adamantly disinterested in, understanding or appreciating philosophy—whether the course material is reflective of the analytic canon or offers juicier fare, such as feminist and environmental material (which ultimately requires understanding of the canon from which it significantly departs) or simply catchy names on the same old courses. For instance consider "Philosophy of the Occult and Paranormal," attractive to students lacking any notion whatsoever of what "philosophy" might be, and expectant of a course which teaches tarot and seances. The class, of course, is simply "Philosophy of Science" renamed. It most definitely does not teach about the paranormal. This particular course, like many others, was named in order to enroll bodies—where mild deception is deemed necessary to achieve that effect. The point is not that students are misled, or interested in other matters (legitimate or not), but that philosophy stands as a near-mystery, and a rather unappealing one at that. I might continue in this vein and offer a vivid list of substantiating facts from my own experiences and those of colleagues. Difficulties with students are rampant in undergraduate philosophy departments, no matter the prestige of the university. There is little or no preparation. There may even be a sort of preparation against philosophy which occurs over the first 18-odd years of a person's life.

Philosophy has been restricted to the realm of the rational by its fathers, and "the rational" are adults. Children (not only young children) have been denied exposure to philosophy under the assumption that they are not fully rational and so are incapable of comprehending it. The feminist philosopher Judith Hughes accurately identifies the pathetic role children have been handed in philosophy: Children have served philosophy very well. That is the first thing which anyone surveying the literature would notice. Along with a selection from a list including women, animals, madmen, foreigners, slaves, patients and imbeciles, children have served in that great class of being, the 'not-men', in contrast with which male philosophers have defined and valued themselves.

What are the philosophers' children like? They have an 'immature' deliberative faculty (Aristotle), are not 'endued with Reason' (Hobbes), until roughly the age of 10 (Kant) and are 'incapable of being acted upon by rational consideration of distant motives' (Mill)... There is obviously something wrong with a portrayal of children as totally lacking in reason until they leap out of bed on their tenth birthday announcing that they are now able to act on principle. Apart from being false, such an account leaves no room in our thinking about children for things like teaching and learning, or development in understanding and character and all those other concepts which refer to processes and not to states. The tension between these theoretical views of children as non-rational, non-autonomous beings and the practical knowledge of real children is evident in those quotations from Hobbes and Locke and Kant and Mill.

The assumption reframed, though variously emphasized, over the centuries has been that only the fully developed rational mind can philosophize, so philosophy has effectively isolated itself from most of the human world. We have a world in which philosophy is done by a handful of adults (professional philosophers) and presented to young adults (college students), most of whom turn out to be ill-prepared, unable, or simply lacking in any awakenable desire to learn about things philosophical.

Philosophers have so restricted the realm of their discipline that it has practically and effectively killed itself for all but academic philosophers. This is no
insignificant accusation. For, as Aristotle (famously, though neither uniquely nor remarkably) explains over the course of his *Nicomachean Ethics*, the human being cannot flourish without philosophical awareness and success:

We must therefore survey what we have already said, bringing it to the test of the facts of life, and if it harmonizes with the facts we must accept it, but if it clashes with them we must suppose it to be mere theory. Now he who exercises his reason and cultivates it seems to be both in the best state of mind and most dear to the gods. For if the gods have any care for human affairs, as they are thought to have, it would be reasonable both that they should delight in that which was best and most akin to them (i.e. reason) and that they should reward those who love and honor this most, as caring for the things that are dear to them and acting both rightly and nobly. And that all these attributes belong most of all to the philosopher [one whose philosophical abilities have blossomed] is manifest. He, therefore, is the dearest to the gods. And he who is that will presumably be also the happiest; so that in this way too the philosopher will more than any other be happy.

Of course happiness here is connected with *eudaimonia*, the state of the flourishing human being—of a person who has developed his very human essence most fully. The aphilosophical adult cannot have reached her potential, for she is capable of wisdom, but has not tapped that potential, and so falls short of what she might be(come). Where the study and love of wisdom is guardedly maintained in ivory towers by those few who manage to sneak under the door, the bulk of humans will not be able to flourish. (An interesting analogy with art and artistic expression presents itself. As monies dwindle in the schools and art is cut from programs, increasingly many individuals mature without guided exposure to art and artistic creativity. The occasional self-taught artist will emerge, but far too many grow from youth unwilling and even unable to pick up pen or pencil let alone visit a museum or appreciate the architecture which surrounds them.) It is precisely here that the real need to consider Philosophy for Children arises.

Even philosophers have an inkling of the connection between the fact that children grow up and that people need philosophy. Recall Kant's talk of ten year-olds, and consider that Aristotle describes the impossibility of success in moral education unless practice—though not philosophy—is begun at a very early age. His famous words are perhaps more telling than Aristotle himself recognized—"For one swallow does not make a summer, nor does one day; and so too one day, or a short time, does not make a man blessed and happy." We see why Aristotle claims that moral practice must begin early, such that physical practice can eventually become spiritually-motivated second nature.

The question thus becomes one of location and method. That is, when is it most appropriate to introduce philosophy to, or encourage and elicit philosophical notions from, children? How ought we to proceed? At this juncture the relevance and import of Montessori's and Lipman's projects arise. I will take them in turn.

**Montessori**: philosophy—the unacknowledged discipline

Montessori's "Cosmic Education" results from her empirically based convictions as to the objective essence and role of human beings as a function of their particular species-determined place in the larger framework which is life on our planet. To say "species-determined" is not to say "instinctual." Simply put, our nature is what it is because of the forces through which we as a species have developed (Montessori's position that our capacities are beyond instinct is another matter). Montessori identifies the human role as that of "co-creator" with nature—which is, for present purposes, to say that she recognizes humans to be rationally sophisticated and creative beings who, by their intelligence and free will—both characteristics engendered by their particular brand of rationality—are equipped to empower themselves to make their existences and their world good. As is our role as co-creator, "good" is empirically determined by reflection on discoverable essences and then extrapolated answers descriptive of the most fitting and proper states. In this vein Montessori notes that "order is not goodness but perhaps it is an indispensable way to attain it." The goal of cosmic education is to enable the "auto-education" of flourishing humans, whose world may then come to reflect their fulfillment.

Because human development occurs in stages—or passes through planes—and the goal of education is to best facilitate proper human development, Montessori describes a sequential pedagogical approach which reflects the developmental stages of a child's life. Paula Lillard summarizes the reasoning behind the method:

> These human behavioural tendencies described by Montessori—exploration, orientation, order, imagination, manipulation, repetition, precision, control of error and perfection, and communication—are present throughout life, although they do not operate uniformly in the formative stages, the years from birth to twenty-four. Exploration for a two-year-old is a different matter from that of a ten-year-old or a sixteen-year-old. This realization substantiates Montessori's argument for new divisions in education based upon the child's developmental stages and requiring different educational environments for each.

As each plane is characterized by particular developmental needs, and thus sensitivities which internally motivate the developing being to fill her needs, the appropriate educational approach for each plane can be described in terms of the "sensitive periods" by which the plane is defined. I will have a bit more to say about the identification and labeling of developmental planes in virtue of their saliences; for although saliences are necessary to a plane, they are
not sufficient to its existential description.

It is critical for my case, as it is to Montessori's pedagogy, that a sensitive period is, "...a transient disposition and limited to the acquisition of a particular trait. Once this trait, or characteristic, has been acquired, the special sensibility disappears." Montessori quickly adds the cautionary note that a child who, "has not been able to act according to the directives of his sensitive period," has forever lost "the opportunity of a natural conquest." This is a very important point, for if there are sensibilities particularly suited for formative philosophical exploration and experiences, these sensibilities must be met before they melt away unfulfilled and so leave a human being who is then incapable of fully blossoming in philosophical directions.

The human infant of the first developmental stage (roughly 0 to 6 years) is particularly and essentially marked by sensitivities for external order, language, movement and sensory refinement. This is the plane of the "absorbent mind" where a child prepares herself for later development by literally soaking up, or "incarnating" as Montessori viscerally describes it, experiences such that they become a part of her, and so of how she forever after interprets and understands the world. The child of the absorbent mind is unaware of the nature and gravity of her work. The second developmental plane (which runs from about 6 to 12 years of age) is particularly and essentially defined by sensibilities for internal order (a mental constructive refinement), rational thought (reasoning, and abstraction), imagination (extrapolative invention), and social connections (inclusive of a hunger for cohorts as well as experiences in the world at large). This is the stage of the "reasoning mind," where consciousness, hand-in-hand with other rationally-fueled capacities, leads a child to explore, learn and hypothesize about, and fully enter her larger world.

It is critically important to recognize that this purported passage from the sensorial to the abstract plane which so informs Montessori's pedagogy need not be a denial of the presence of rationality prior to a child's emergence into the second developmental plane. The not unfamiliar difficulties which plague the likes of Kant (recall Judith Hughes' insightful remarks about people who leap out of bed suddenly rational on a pre-ordained day) mark Montessori as well if the names by which she labels developmental stages are taken too literally. Montessori herself may be guilty of the mistaken assumption that catchphrase labels precisely and finally delineate all of a child's abilities at any given stage. The point is that the "absorbent" and "rational" minds are so named in
virtue of saliences and proclivities. The labels "absorbent mind" and "rational mind" do not fully capture the goings-on of the developing minds they identify. I would emphasize that they cannot, for were the capacities of each stage preclusive of those which it preceded, no development could ensue. The analogy to biological evolution should not pass unnoticed.

Montessori classrooms are designed to offer developmentally appropriate learning materials in an open atmosphere where children may follow their needs and interests as they become increasingly competent, self-controlled and contributing members of their communities. The Montessori "teacher" is a guide who "follows" the child, while she unobtrusively maintains the general tenor of the room. The casa class, a community of 5 - 6 year olds with their teacher(s), is distinguished by its practical life, sensorial, arithmetic, language, and cultural areas, along with silence exercises. Each of these areas reflects a discipline which responds to the earlier enumerated sensitive periods of the casa child. And, though meticulously ordered and separately shelved, the interrelation between the materials and the areas in which they are placed grows increasingly evident to any observer—as it does to the child. For example, culture and language permeate all areas, sensorial leads into arithmetic, and practical life feeds them all—the list of interconnections is exponentially greater than is the enormous list of casa materials and activities. Themes of repetition, revisitation of the familiar in novel form, directionality (general to particular, concrete toward abstract), independence, community, and self-control are evident throughout the Montessori classroom experience.

The aforementioned themes continue into elementary level classes, but here they meet with significantly different effect as a result of the newly emergent distinguishing sensitivities of the 6 - 12 year old child. Again, "Successive levels of education must correspond to the successive personalities of the child..." In effect, we have before us at each new stage a different child who presents characteristics different from those he exhibited during preceding years. The elementary child craves inner order and comparison of foreign languages. Eventually, the drive for external order will become manifest itself in the incorrect but patterned possibilities. Now the child is inwardly driven to socialize, and so learns with others about their shared larger world. Work is thus designed to be done in groups, and to involve children in varied roles.

The elementary is further distinguished from the casa class by the introduction of additional subject areas (which, again, though clearly interconnected, are identifiable in name and general concept): geography, zoology, botany, geometry, and history now complement language, arithmetic, and the proto-geometry, which is sensorial. Culture is omnipresent, and is the openly acknowledged heart of all areas—which the great lessons themselves underscore. Where "absorbency of mind" is the descriptive catch phrase for the first developmental plane, the "reasoning mind" of the second plane is typified by its penchant for cultural acquisition. Of course rationality is a necessary driving force behind the need and desire to acquire culture. So, in essence, where Montessori describes the second plane as, "a period for the acquisition of culture, just as the former was for the absorption of the environment," she characterizes all the variety of sensitivities of the relevant developmental plane. To speak of "absorbent minds" and "reasoning minds" is to focus on particular sets of mental abilities which predominate over the course of a given developmental plane. The absorbent mind literally incorporates the environment it experiences into its being. The reasoning mind studies and works with its environment such that a person can become an active member of her culturally defined world. To reiterate:

The passage to the second level of education is the passage from the sensorial, material level to the abstract. The need for abstraction and intellectual activity makes itself felt around the seventh year. Until that age the establishment of the relationships between objects is what is important to the child. This is to say that the child needs to classify and absorb the exterior world by means of the senses. A turning toward the intellectual and moral sides of life occurs at the age of seven. Montessori aptly identifies the human need for lengthy preparation which must precede direct acquisition of any particular sort of information. To say that the casa experiences pave the way for the elementary is to say that the sensibilities of the casa child effectively prepare the child for her newfound elementary sensitivities. As one might expect, learning is preparatory within the planes as well. Consider the preparatory work a child does even in utero and through the earliest days of infancy toward the eventual acquisition of a mother tongue. Returning a polishing exercise to the shelf in its proper order helps even the preverbal child to absorb—i.e., to experience, to use—the order which she will find in language. Eventually, the drive for external order will manifest itself in the incorrect but patterned misconjugations of past tenses in English. Even later, the sensitivity for inner order will bring a child to poetry and comparison of foreign languages.
That human maturation which Montessori categorizes in terms of developmental stages effectively ensures that a human who is able to respond to the inner needs of each developmental plane will grow to be a fully "normalized," *i.e.*, a flourishing human being. In her first lecture of a series entitled, "The Importance of Education in Bringing about Peace," Montessori concludes that "we have caught a glimpse of what a normal man can be, [thus] we have reason to believe that all mankind may one day become better, become normal." Such a person will become an adult who is complete in that her existence is a self-designed expression of the full range of her essential human nature. The Montessori method is a response to a pedagogy designed to foster just such growth.

Where is the philosophy in all this? Clearly Montessori's approach, as Montessori herself, is deeply informed by philosophy. However, it is equally clear that Montessori did not envision philosophy proper as a discipline which answers the needs of either the primary or elementary child. There is no philosophy component of the Montessori curriculum. Nor is there a repeatedly revisited philosophy which, analogous to culture, is directly exhibited in primary and made a distinct focal point in elementary. To suggest that philosophy quietly permeates all or most of the Montessori child's experiences is an insufficient rejoinder. Only history, which is as pervasive as philosophy (one might say that, culturally, where history tells, philosophy asks) garners its own place in the Montessori curriculum. Were it suggested that philosophy is subsumed by culture and history, we must answer that the elementary child is offered botany and zoology, as opposed to biology. That is, where disciplines are significant and merit their own attention—no matter how interconnected their subject matters—Montessori is careful to give them due consideration. My claim, of course, is that philosophy must be incorporated into the Montessori curriculum if that curriculum is to be as complete—as responsive to the entirety of human developmental needs—as Montessori envisioned.

It is likely that Montessori's omission of philosophy is at least partially the result of the fact that philosophy has always been the exclusive business of higher education. Though Montessori brings reading, writing, and geometry, etc. to notably young children (with respect to the norm then, and even now) she
has not dragged these disciplines all the way down from the halls of higher academe. Reading, writing, and geometry are encountered by older children. I contend that philosophy does deserve a recognized place of its own in the Montessori curriculum. In the \textit{casa} class philosophy may be best introduced, as is geometry or botany, without its own individual place, but by means of preparatory introductions. Philosophy manipulatives might be interesting to design. Sensorial manipulatives clearly already introduce deeply philosophical concepts and mental vocabulary, such as abstraction, essence, beauty, identity, and form. Here we again see that the absorbent mind is not wholly arational in interest, purpose, or ability.

However, it is at the elementary levels that philosophy must be fully, directly introduced. For here we have human beings inwardly driven to attend to their deeply formative sensibilities for inner order, reason, rational thought, and imagination. This is the stuff, and the equipment, of philosophy. The interrelationships between these sensibilities only serve to magnify the elementary child’s need to be provided with the discipline of philosophy, just as she needs to be provided with history, language, or arithmetic.

\textbf{Philosophy for children: Philosophy curriculum without a mooring}

This is precisely where Matthew Lipman’s Philosophy for Children program becomes relevant. Montessori as yet has no provision for the “patch-in” incorporation of philosophy. Lipman’s project offers just what the Montessori curriculum needs, in a spirit and a form that are fully consistent with Montessori pedagogy. On the other hand, all that Lipman has is a lovely example of philosophy curriculum for children. And though Philosophy for Children has attained minimal success (particularly internationally, rather than at home in North America), his carefully worked out methods for the early and timely introduction of philosophical methods and ideas has neither found a niche nor made any measurable dent in the mainstream, or any stream, of childhood education. Montessori needs philosophy. Philosophy for Children needs to be embraced by a working pedagogy. Because Lipman’s and Montessori’s views of the capacities, potentials, and natures of children are, I will argue, profitably compatible, Philosophy for Children and Montessori offer a much-needed educational match.

The rationale behind Philosophy for Children is rather quickly explained. For present purposes\textsuperscript{15} I will accompany a sampling of Lipman’s own general remarks with a simple running account of their critical overlap with Montessori pedagogy:

\begin{quote}
... for 2500 years, philosophy was thought to be too difficult a subject for children to study. It was therefore restricted to courses in the colleges and universities. ... After all, if
\end{quote}

Reading and Writing are taught to children under the auspices of Literature, why not make Reasoning and Judgment available to children under the auspices of Philosophy? Children do not need to learn philosophy. Rather as with reading and writing it is something one does. . . . An added advantage of introducing philosophy into the grade school has been the realization that this would be an ideal way of having children study values, for in philosophy, conceptual analysis plays a major role, and values are, among other things, concepts of importance. . . . In Philosophy for Children, students begin by reading texts in the form of stories. These stories are about fictional children who discover how to reason more effectively, and how to apply their reasoning to life situations. These stories are then discussed by the children in the classroom. Many problematic issues are encountered and examined. The students deliberate among themselves, and this process of deliberation is then internalized by the individual students: They become more reflective and begin to think for themselves. . . . These classroom deliberations evoke thinking that is skillful and deliberate, thinking that employs relevant criteria, is self-correcting, and is sensitive to context. It is not just any kind of thinking: it is critical thinking. . . . The classroom dialogue is something students find irresistible: they can’t help joining in, contributing their own reflections to the discussion. In this way the cognitive skillfulness is acquired in context, rather than in isolated drills. . . . Although Philosophy for Children is suitable for any child, it is not something that can be readily taught by any teacher. Teacher preparation, involving the facilitation of classroom dialogue and the formation of classroom communities of inquiry, is highly recommended. . . . Philosophy for Children sharpens children’s linguistic, logical and cognitive competence. If any subject should be added to the school curriculum, it should be philosophy.\textsuperscript{16}

Philosophy for Children is a curriculum designed to elicit from children an activity—a process—which lies within them waiting to be awakened. Just as Montessori is distinguished by her revelation that children are not taught language, but learn to read themselves, Lipman recognizes that children are philosophically able beings. Where Montessori describes great lessons, or enchanting narrative accounts linking past to present and so to future possibility, Lipman provides fictionalized accounts which equally involve children in ways that touch them deeply such that formatively reflective, appreciative, and extrapolative thoughts and possibilities are excited. Along with Montessori, Lipman identifies the social and communal proclivities of elementary-aged children. In Philosophy for Children, as in Montessori projects, children discuss and plan amongst themselves while the teacher’s role is that of assistant or aide. Both emphasize the fact that children absorb and are touched by the very formative activities—incited and assisted by appropriately designed materials—in which they independently chose to participate. Here Lipman’s talk of the internalization of process experienced is decidedly consonant with Montessori. Philosophical dialogue becomes increasingly self-corrective, and self-correctivity is an earmark of the importance of Philosophy for Children. Again, Montessori concurs. Self-correctivity is an extremely important characteristic of Montessori materials for
the independence and self-reliance which it provides. Perhaps even more important here is the fact that the nature of self-correctivity grows increasingly abstract as the child moves from casa to elementary Montessori materials and subject matters. The self-corrective aspect of Philosophy for Children materials parallels just that which we find in the elementary Montessori program. That elementary-aged children are deeply drawn to philosophy has already been discussed. That Philosophy for Children is designed to enable children to learn by experience as opposed to rote memorization, or dry and passive listening, reflects yet another Montessori principle. Finally—a point which has already been alluded to in passing—the teacher in Philosophy for Children is neither the typical philosophy professor nor elementary school teacher. The Philosophy for Children teacher, much like the elementary directrice of Montessori, is a facilitator or guide as opposed to the font of truth who pours out contents into paralyzed, subservient minds.

Lipman's is a flexible curriculum—one which can be successfully employed and/or adopted from Mainland China to Colorado. Lipman's stories, which recount happenings in the lives of a young boy and his friends, are designed to spark initial discussion, out of recognition of fellow-feeling and shared plight. There is an emphasis on process over result—a fact necessary to appreciate in philosophy where some truly lovely questions may be unanswerable, unanswerable by minds such as ours, a product of our mental trappings, or simply nagging but not permitting of formulation. In Montessori education as well the emphasis is on process over result. For example, it is far more important to understand how long division works than it is merely to be able to get the right answer. In philosophy it is the struggle that matters—where "struggle" involves awareness of process and possibilities, approaches and newly-sparked questions. Answers are enjoyable, but not the end and end all.

The Synthesis

The study of philosophical methods and issues reinforces Montessori's own notion of cosmic interconnection. In addition to philosophy's position as parent of all disciplines (and so formative of and formed by their natures), is the fact of philosophy's presence in all disciplines. We have logic, philosophy of math, philosophy of science, philosophy of language, aesthetics, ethics, etc. Philosophy is a natural and imaginative endeavor. It is also a communal enterprise. A communal activity which speaks to the rational and imaginative capacities of a being intent on bringing increasingly complex order to her inner self, while she simultaneously (and thereby) enters the wide world—this is philosophy. And this is why philosophy needs to be squarely accommodated by the Montessori curriculum, neither as an afterthought nor as a permeating but only indirectly acknowledged presence. Because of the essential developmental requirements of elementary children, philosophy must be its own discipline on par with those other subject matters which are already acknowledged to be so fundamentally important to the full development (and, particularly, the auto-development) of the child.

I close with a simple restatement of my conviction: Montessori and Philosophy for Children should be combined, as Philosophy for Children offers completion to the Montessori curriculum and Montessori offers that sort of curriculum of which Philosophy for Children is deeply in need if it is to brought to any real measure of fruition.

ENDNOTES

5. In discussion of Montessori I will provide footnotes where they substantiate particularly unique references or where paraphrasings or quotations are presented. Most of the core of Montessori's pedagogical picture is repeated many times throughout her works and those of her commentators.
7. The term "auto-education" appears in a discussion of the particular sort of freedom (willed self-determinacy as opposed to rampant chaos) necessary to a child. This is one of Montessori's less frequently used buzz words, although it expresses her intention quite clearly. Maria Montessori, The Advanced Montessori Method - I (Oxford: Clio Press, 1991), p. 37.
10. Ibid 39.
16. From the web page of the Institute for the Advancement of Philosophy for Children.
The quality of the discussions in our communities of inquiry partly depends on our mastery of various aspects of reasoning skills and concepts. I would like to propose a few exercises that would help students improve their mastery of a few of those aspects. Some of these exercises were developed when I taught a grade nine English lesson to French speaking students, and six grade nine French lessons to English speaking students. They were used to improve students’ comprehension and evaluation of the stories they were reading at the time, or were read very shortly after the exercises. The exercises are certainly not intended to replace the stories that stimulate philosophical discussion among children, or to replace such discussions. They are intended to complement these stories and discussions at a time when a teacher believes that they will be most beneficial to his or her students.

I will illustrate one way of introducing students to two standards of reasoning: precision and consistency, and to two elements of reasoning: implication and inference. The approach can be easily modified to apply to the other standards (e.g. relevance, impartiality, completeness) and elements of reasoning. The sequence in which I present the standards and elements is important because each one builds on the previous one, and students need to see how the standards and elements interconnect. Within each sequence are a number of exercises, and I invite you to change them in whatever way that would maximize your students’ learning. Keep in mind that it would be a mistake to spend many successive lessons just on precision, or just on consistency, or any other standard of reasoning. For it would make it more difficult for the students to see how the application of standards and elements of reasoning are often interdependent; and the appearance of fragmentation among standards and elements would increase the chances that their "learning" would become meaningless to them. It is important to apply these standards and skills as soon and as often as possible so that students will more easily appreciate their usefulness.

In order to enhance further the relevance and meaningfulness of these exercises, I invite you to choose examples that come from your students’ life experiences and interests. We must not limit the application of these tools to stories that stimulate philosophical discussions; otherwise we increase the chances that our students will become good thinkers only for those specific occasions. A careful selection of examples from various disciplines would also be one way of beginning to infuse reasoning standards and
skills into the teaching of content (e.g. core concepts, principles, theories) of those disciplines. Get the collaboration of your colleagues to supply you regularly with examples from their disciplines. It is best to start with some very easy examples, and to repeat the complete sequence of standards and elements a number of times with gradually more challenging examples. I have provided only a few examples to serve as illustrations to you.

Examples obtained from students' life experiences, interests, and various disciplines helps to achieve two other important purposes. First, they provide an opportunity to verify the extent to which students have grasped and can apply the standards and the skills of reasoning. Secondly, they will increase the chances that students will transfer the standards and skills beyond our courses to their lives and to all the disciplines.

Such transference should be a central measure of our success as educators. If our students become competent thinkers only in our philosophy for children program, and only on our assignments, projects, tests and exams, then no matter what level of competence they reach, we fail as educators. For they will not be reasoning outside of our class any better than a typical student who has not participated in a philosophy for children program. In order to avoid such a consequence, we must ensure that their learning is not reduced to a compartmentalized "game" of mental gymnastics to which they conform only in order to pass the course, and which they quickly abandon in the pursuit of what they will believe to be more meaningful and useful activities. Applying the standards and elements of reasoning to their interests and personal experiences helps to avoid this illusion of "learning."

The exercises that I will be proposing are intended to help students to explore and discover some standards and skills of reasoning while becoming aware of their reasoning. The discovery approach will also help us to assess their current level of reasoning skills, and with that knowledge we will know whether to present simpler or more complex examples with which to explore the skills and elements of reasoning. Some of the exercises will require some cooperative learning among students because it is a very important tool in helping them to become aware of and improve their reasoning. The discovery approach will also help us to assess students' interpersonal skills. This is important because the sooner we can spot and eliminate obstacles to this collaboration, the better it will be for their learning.

Students will need varying degrees of modeling and coaching for each exercise, and I will describe a few ways of modeling some of them. But bear in mind that you will have to adjust this modeling to the level and interest of your students. And if you suspect that the order or presentation of the exercises (not the order in which to present the standards and elements of reasoning) will be counterproductive, then modify them as you see fit in order to maximize your students' learning. The exercises for each standard and element of reasoning are similar, so in order to avoid needless repetition, I will describe the complete set of exercise only once.

I begin with the standard of precision because the exercises will force students to focus immediately on the language, and to construct questions addressed to various parts of a sentence, thereby indirectly teaching them the various grammatical parts of a sentence. We want them to realize that the quality of one's reasoning and one's use of language mutually influence each other. So, if we want to improve one, we must also improve the other. Another reason is that the precision of sentences will determine whether they are inconsistent, or whether one logically implies another, or whether an inference is valid. For precision helps to eliminate ambiguity or vagueness, and these definitely affect the consistency or implication of statements. So, the standard of precision plays a foundational role in the quality of our reasoning, and allows an exploration of language from a different perspective.

Here is one way, among many others, to have students explore the notion of precision.

(A) Contrast the sentences in each pair and write a rule/criterion/principle that would help anyone to determine when a statement is more precise than another.

In each pair of sentences, (b) is more precise than sentence (a).

1. (a) Someone does something to someone else.
   (b) The student greets the teacher.
2. (a) I ate some fruits.
   (b) I ate two apples.

3. (a) The person does exercises.
   (b) The person does physical exercises each day.

Here is one way in which one could model or describe/report the "map" of the steps in one's reasoning. We should illustrate the construction of a rule by examining only one pair of sentences because this is the simplest way to begin, and if we first select a pair of sentences that can easily suggest an inadequate rule, we can later illustrate the importance of considering many examples in order to construct a reliable rule.

"I looked at the following pairs of sentences.

(a) The person does exercises.
   (b) The person does physical exercises each day.

I'm told that (b) is more precise than (a). I contrast (a) and (b) and notice that (b) has more words than (a). I reason as follows: Because (b) contains more words than (a), (b) is more precise than (a). I translate the inference into a conditional statement: IF (b) contains more words than (a), THEN (b) is more precise than 3(a). Since a rule is a general claim, I construct a rule by generalizing this conditional statement: IF sentence x contains more words than sentence y, THEN x is more precise than y."

Of course there are different but equivalent ways of expressing the general rule, for example, any sentence x containing more words than a sentence y is more precise than y. Keep in mind that you will have to model the construction of a rule, or model the description/report of its construction, in a way that will be understandable and useful to your students. In some cases you might not want to express the rules in such an abstract and general way.

Once students have constructed their rules for identifying precise sentences, we have them test their rules. We supply them with additional pairs of sentences in which one is more precise than the other, and have them do the following exercise.

(B) Test the rule.

(1) Does the rule correctly identify the more precise sentences?

(2) If it does not, where does the problem arise?
   (a) Is the rule not clearly formulated, and therefore difficult to apply?
   (b) If it is clear, is there a still a mistake in the way it is applied?
   (c) If the rule is clear and correctly applied, but fails to distinguish precise and imprecise sentences, then is the rule defective (inadequate)?

(3) Write a short composition that describes the steps (the mental map) that you followed when you tested your rule.

There are various purposes to B(3). It is intended to help students to become more aware of their reasoning. By having it written down, it will be easier for you to guide the student and model the correcting process in such a way that the students will eventually be able to correct themselves. It is only if students can correct themselves that they will become intellectually independent thinkers.

Here is one possible way of modeling B(3).

"I want to test the rule, IF sentence x contains more words than sentence y, THEN x is more precise than y. I use the following pairs of sentences to test the rule.

(a) Someone does something to someone else.
   (b) The student greets the teacher.

I count the number of words in (a): 6. I count the number of words in (b): 5. Sentence (a) has more words than sentence (b). So, they satisfy the condition of the rule, IF sentence x contains more words than sentence y. Consequently, according to the rule, sentence (a) is more precise than sentence (b). But this consequence is false. Therefore the rule is inadequate to help me identify only precise sentences.

"Then I go back to the given pairs of sentences, and attempted to invent a better rule. I examine

(a) I ate some fruits.
   (b) I ate two apples.
   I look at (a) and (b) I notice that (b) uses "two" but (a) uses "some".

The word 'two' is more specific than 'some'. I also observed that (a) refers to fruits but (b) refers to apples. Apples are examples of fruits. There are all kinds of fruits, e.g., bananas, cherries, mangos. So (a) does not specify which fruit the person ate, but (b) does specify. I reasoned as follows: Because (b) is more specific than (a), (b) is more precise than (a). I translated this inference into a conditional statement: IF (b) is more specific than (a), THEN (b) is more precise than (a). By generalizing this conditional statement I get the general rule: IF a sentence is more specific than another one, THEN it is more precise than the other one."

One way of helping students to see the importance of writing their rules clearly, and to become more aware of their reasoning, is to have them collaborate. This brings us to the next exercise.

(C) Exchange your best rule with another student's best rule.

Test each other's rule as you did in (B).

The next exercise helps students to become aware of possible double standards in the evaluation of rules.

(D) (1) Write a short composition that describes the steps (the mental map) that you followed when you tested the other student's rule.

(2) Contrast your two compositions.
   (a) Did you evaluate your rule the same way you evaluated the other student's rule?
   (b) Did you attempt to understand each other's rules before testing them?
   (c) Did you evaluate each other's rule accurately? fairly?
(3) Have the other student respond to the way you tested his or her rule.

At some point we must help our students to transfer their skills to their own reasoning, communication, and life experiences.

(E) (1) Identify imprecise sentences that you have used.

(2) Identify imprecise statements that others have used in conversations, books, magazines, or on TV or radio.

(F) Use your rule to make those statements more precise in the context of their use.

At some point where we see that students have some understanding of what precision is, we need to help them see the importance of precision in their communication and thinking. This will affect their motivation (disposition, commitment) to improve their ability to communicate and think precisely. One way to dispose them to seek precision where it is needed is to identify the costs of imprecision and the benefits of precision. Here is one kind of exercise that would help them to see the costs.

Why should we bother to be precise? Why value precision?

(G) What are the (i) possible, (ii) probable, (iii) certain consequences when
(a) the rules of a game are imprecise?
(b) questions on a test or exam are imprecise?
(c) answers on a test or exam are imprecise?
(d) parental or school rules are imprecise?
(e) scheduled times to play, have recess, watch TV, etc. are imprecise?
(f) medical prescriptions are imprecise?
(g) scheduled time to board a bus or plane on a trip is imprecise?
(h) traffic rules are imprecise?
(i) the orders of a parent, teacher, coach, principal, mayor, senator, general, president are imprecise?
(j) business contracts are imprecise?
(k) commercial or peace treaties among countries are imprecise?
(l) advertisements are imprecise?

(H) Identify consequences you have experienced from your own imprecise communication or imprecise reasoning.

Having students see the benefits of precision or the costs of imprecision will not be enough to motivate them to seek precision whenever it is appropriate to do so. They must also realize that precision is generally easily realizable. One way of meeting this pedagogical challenge is to show them how raising simple questions focused on specific parts of a sentence can help them to increase the precision of that sentence.

Improving one's questioning abilities is an important tool in improving one's reasoning in general.

You have heard the Chinese saying, "Give a hungry person a fish, you feed him or her for the day. Teach him or her how to fish, you feed him or her for life." An analogous saying applies to questioning. I have added blanks for you to explore and discover your own attitude toward questioning: Give a good question to a student, you ______ him or her for the day. Teach him or her how to raise good questions, you ______ him or her for life. Compare your insertions to your colleagues'.

Here is one way of illustrating how to focus questions on different parts of a sentence in order to obtain greater precision.

(I) Precision is easily attainable.

Here are simple questions that we can raise in the sentence "We invited people" in order to help us to make it more precise. We insert the question after the word (or group of words) where more words (information) need to be added in the sentence in order to make the sentence more precise.

1. We [who?] invited people.
2. We invited [how many?] people.
3. We invited [who?] people.
4. We invited people [when?]
5. We invited [how many?] people?
6. We invited people [to what?]
7. We invited people [to do what?]

This kind of exercise forces students to pay attention to the different parts of a sentence, and shows them the importance of understanding the parts of a sentence in order to think and communicate precisely. It exemplifies the intimate connection between language and reasoning. The exercise will consist of giving them sentences in which they can raise simple (but significant) questions in order to increase the sentences' precision.

This ends the series of exercises for the standard of precision. The same set applies, with some modifications, to the next standard, consistency, and to the two elements of reasoning, implication and inference. You might not want to go through all these exercises the first time around. You might prefer to do (A) and (B), and then go straight to the exercises (G,H,I) that show students the relevance of precision in their lives in order to motivate them. After having gone through at least exercises (A) and (B) for the other standard, consistency, and the two elements of reasoning, you might want to add the second time around some of the other exercises, e.g. (C) and (D). For each additional cycle you can add whichever exercises, along with more challenging examples when they are ready for them.

The next standard of reasoning to explore is consistency. Two statements are consistent when they cannot both be true at the same time. There are two kinds of inconsistent statements. (a) Contrary statements cannot both be true at the same time, but they can both be false simultaneously, e.g., "The tabletop is now completely red" and "The tabletop is now completely yellow," when both sentences are used to refer to the same table at the same time. (b)
Contradictory statements cannot both be true at the same time, and cannot both be false simultaneously, e.g., "The tabletop is now completely red" and "It is not the case that the tabletop is now completely red," when both sentences are used to refer to the same tabletop at the same time.

There are different ways of expressing the notions of consistency/inconsistency: conflicting/non-conflicting; compatible/incompatible; coherent/incoherent; go together/do not go together; fit together/do not fit together. The words "opposing" and "opposite" are also sometimes used to label inconsistent premises. Once students show their understanding of the concepts, you might want to ask them what (socially acceptable) words they use among themselves to label consistent or inconsistent statements, and you might use it when appropriate.

Since "consistency" and "inconsistency" modify statements and not sentences, students, if their intellectual maturity permits it, should learn to distinguish between sentences and statements (assertions, claims, affirmations). A statement is a sentence that is used in a particular context to assert/affirm/claim/state something that is either true or false, acceptable or unacceptable. A statement is independent of the language used to express it. For example, the following different sentences express the same statement: "It's raining." "Il pleut." "Esta lluviendo." "Esta chovendo." "Es regnet." No sentence is true or false. It is only when we use them to make a statement in a particular context that they are either true or false. The same sentence can be used to make different statements in different contexts. For instance, the sentence, "The current President is a Democrat" can be used to assert three different statements when asserted in 1962, 1978, and 1998. For in each case it can be used to refer to a different President. A sentence can contain more than one statement, e.g., "You will do all the exercises correctly, consequently your skills will improve." In this example a statement is used to support a distinct statement, and thus the example illustrates that a single sentence can express a complete argument.

Rhetorical questions are sentences having the form of a question, but they are used to express statements. All these points show that grammatical form alone is not always sufficient to identify statements, or their intended use.

My emphasis on the use of statements is important. We want the students to learn that they are building arguments, constructing explanations, fashioning reports, founding ideas from the way they use sentences and statements. They can see themselves as intellectual engineers, contractors, cooks, sculptors, painters, composers, choreographers, or other creators. Find whatever constructing-creating metaphor that connects each student's interests and learning style to their use of statements.

Since the series of exercises that would help students to explore the notions of consistency and inconsistency is similar to the ones described with respect to precision, I will only describe the first part, (A).

(J) Compare and contrast the pairs of statements in the following lists in order to formulate a rule/criterion/principle that would help anyone to determine when statements are consistent or inconsistent.

**Inconsistent statements**
1. The sky is completely clear at noon today.
   - The sky is completely cloudy at noon today.
2. He was very popular last year.
   - No one knew him last year.
3. This surface is completely red now.
   - The same surface is also completely blue now.
4. The meal is completely hot.
   - The same meal is also completely cold at the same time.
5. The surface that I am touching with my left hand feels very soft.
   - The same surface that I am touching in the same way with my left hand also feels very rough at the same time.
6. The musical note is loud.
   - The same musical note is also soft at the same time.

**Consistent statements.**
1. The sky is completely clear.
   - The sky is also completely starry.
2. He was very popular last year.
   - Some people did not know him last year.
3. This surface is partly red.
   - The same surface is also partly blue.
4. A portion of the meal is hot.
   - A different portion of the meal is also cold at the same time.
5. A section of the surface that I am touching feels very soft.
   - A different section of the same surface feels very rough.
6. The musical note is loud.
   - The same musical note is also soft at a later time.

As soon as students grasp the notions of consistency and inconsistency it is important to make them see how consistency and precision can work together. We can eliminate the apparent inconsistency of statements by making them more precise: the added precision can show situations where they can be true
at once in the same context. For example, the following statements appear inconsistent:

(a) We always go to the movies.
(b) We never go to the movies.

However, we can make them more precise by raising the same questions in the same parts of both statements, where more words (information) can be added, and then use our imagination to provide different answers to the same questions. For instance,

(a) We always go [when?] to the movies.
(b) We never go [when?] to the movies.
(c) We always go to the movies on Saturdays.
(d) We never go to the movies on Mondays.

The apparent inconsistency of (a) and (b) is thus cleared (clarified) away by the precision expressed in (c) and (d).

The other value of this kind of exercise is that it explicitly invites students to use their imagination, and thus illustrates that critical thinking is not divorced from creative thinking. Some students even develop an intellectual playfulness in attempting to show that statements that appear inconsistent are not in fact inconsistent. We should encourage that playfulness in all their exercises and philosophical discussions. The exercise could be presented as follows.

**Connecting precision and consistency**

You are given pairs of statements that appear inconsistent. For example,

(a) We always go to the movies.
(b) We never go to the movies.

But are they sufficiently precise to determine whether they are inconsistent? Raise the same appropriate questions at the same part of each sentence, where more words (information) can be added, and use your imagination to answer the same question differently. For instance,

(a) We always go [where?] to the movies.
(b) We never go [where?] to the movies.
(c) We always go to the movies by car.
(d) We never go to the movies by jet.

If you can succeed in accomplishing this, you show that the two statements can be true at once. In such cases the precision of both statements eliminates their apparent inconsistency. Here are additional examples illustrating the questioning that helps to imagine situations where both statements are true.

(a) We always go [where?] to the movies.
(b) We never go [where?] to the movies.
(c) We always go to the movies downtown.
(d) We never go to the movies in the suburbs.
(e) We [who?] always go to the movies.
(f) We [who?] never go to the movies.
(g) We always go to the movies by car.
(h) We [friends] always go to the movies.
(i) We [neighbors] never go to the movies.
(j) We always go [how?] to the movies.
(k) We never go [how?] to the movies.

I have focused only on contrary statements, but similar exercises could be constructed to help them grasp the concept of contradictory statements. Once they understand the notion of consistency and contrary statements, we can give them examples of contradictory statements and contrary statements, and then ask them to identify the rule that would help them to identify all and only contradictory statements. One could then construct a series of exercises similar to the ones I have been proposing.

Once students grasp the standards of precision and consistency, we can introduce them to the notion of logical implication. There are different but equivalent ways of expressing the relation that statement $p$ logically implies statement $q$; $p$ entails $q$; $q$ is a necessary condition for $p$; $q$ necessitates $p$; $q$ is a logical consequence of $p$; and $p$ logically follows from $q$.

If I have introduced the notion of logical implication before the notion of precision before the notion of logical implication because we must first determine whether statements are sufficiently clear and precise before we can identify what they logically imply. For example, we cannot determine whether or not "He is sleeping" entails "He is not walking" until we clarify the meaning of "sleeping." For if someone is using "sleeping" so as to include sleep-walking, then "He is sleeping" does not entail "He is not walking" because he could be sleep-walking. But if someone is using "sleeping" so as to exclude sleep-walking, the entailment holds. Thus, the imprecision of the use of "sleeping" prevents us from determining exactly what logically follows.

I have discussed consistency and inconsistency before logical implication because the latter concept is often defined with the help of the notion of inconsistency. For instance, the statement "This is a square" logically implies "This has four sides" because the conjunction, "This is a square, and this does not have four sides," is inconsistent.

It is valuable to introduce students to the notion of logical implication soon after they grasp the notion of inconsistency because it can help them to identify hidden inconsistent (or contradictory) statements. For example, "All whales are mammals" and "No whales breathe" are inconsistent, even though it is not obvious from the appearance of the sentence. But we see the inconsistency if we bear in mind that since all mammals breathe, it logically follows that all whales breathe, and this is evidently inconsistent with the initial statement that no whales breathe. So, noticing what statements imply can help us to discover implicit inconsistencies (or contradictions).

The ability to identify logical implications plays an important role in our thinking and communication in other ways as well. It helps us to test our understanding of concepts and statements. Consider the following statements.
If we understand the statement that (a) and (b) are inconsistent, then we see that it logically implies the following two statements: if (a) is true, then (b) is false; and if (b) is true, then (a) is false. If one fails to see that implication, then one does not understand the notion of inconsistency. So seeing what a statement implies provides some evidence that we understand the statement. Similarly, being able to identify what a claim implies shows that we understand that claim. Logical implication is a fundamental notion in many arguments and explanations. It is also necessary in order to read and discuss with any depth: sometimes we can appreciate how characters, conflicts, or other elements of a story are interwoven only if we can identify implicit logical connections among various aspects of the story.

Here is one way of using a discovery method to introduce students to the notion of logical implication.

(K) Compare and contrast the following lists in order to invent a rule/criterion/principle that would help anyone to identify logical implications.

**Correct logical implications.**
1. "This is a square" implies "This has 4 sides."
2. "I am chewing something now" implies "Something is in my mouth now."
3. "x > y, and y > z" implies "x > z."
4. "He's sleeping in bed" implies "He's not running."
5. "I'm totally blind" implies "I can't visually appreciate paintings."
6. "I sing" implies "I have vocal chords."

**Incorrect logical implications.**
1. "This is a square" implies "This is blue."  
2. "I am chewing something now" implies "I have teeth."
3. "x > y, and y > z" implies "x > x."
4. "He's sleeping in bed" implies "He's sleeping comfortably."
5. "I'm totally blind" implies "I can't read."
6. "I sing" implies "I enjoy what I sing."

The exercises could then proceed in the same sequence used to teach the standard of precision, but only as long as you believe that that particular sequence of exercises can maximize students' learning.

As soon as they discover—in their language and at their level—that $p$ fails to imply $q$ if we can imagine a possible situation where $p$ is true and $q$ is false, they should learn that such a situation is a counterexample against the purported entailment. The ability to use one's imagination in such a way is also a very important tool in the evaluation of the validity of inferences and arguments.

We have been examining the element of implication. The second element of reasoning that relates to implication is inference. An inference occurs whenever we use one or more statements to support another one: whenever we draw a conclusion. An argument occurs whenever the goal of the inference is to convince someone of the truth of the conclusion. So, though every argument entails an inference, not every inference entails an argument. We should also keep in mind that it is statements that entail or logically imply another statement, but it is people who infer statements.

In order to help students explore and discover the connection between implications and valid arguments we can present them with the following exercise.

(L) Compare and contrast the following lists in order to invent the rule/criterion/principle that would help anyone to identify a valid argument.

**Valid arguments.**
1. Since this is a square, it has 4 sides.
2. I am chewing something now, therefore, there is something in my mouth now.
3. $x > y$, and $y > z$, consequently, that $x > z$.
4. He's sleeping in bed, so he's not running.
5. I'm totally blind, hence, I can't visually appreciate paintings.
6. The student sings, thus, the student has vocal chords.

**Invalid arguments.**
1. Since this is a square, it is blue.
2. I am chewing something now, therefore, I have teeth.
3. $x > y$, and $y > z$, consequently, $z > x$.
4. He's sleeping in bed so he's sleeping comfortably.
5. I'm totally blind, hence, I can't read.
6. The student sings, thus, the student enjoys what he or she is singing.

The exercises proceed as illustrated with the standard of precision. It will be important to stress the value of imagination in these exercises when students evaluate the support of premises by attempting to imagine possible situations where premises are true and the conclusion false. For example, the conclusion "I have teeth" does not logically follow from the premise "I am chewing something now" because we can imagine a toothless person chewing some gum. Such a possible situation is a counterexample against the inference (or argument, if the goal is to convince someone of the truth of the conclusion). Exercises (K) and (L) are particularly important to help students to start noticing and evaluating arguments in other disciplines and in their personal lives.

The preceding exercise also introduces students to the function of words like "so" and "since." They indicate how a statement is used in argument. I suggest that you identify and even invent expressions that have the function of indicating the role of a statement in one's reasoning. Here is one way in which such an exercise could be created.

**PREMISE AND CONCLUSION INDICATORS**
Let the letters "P" stand for a premise/reason, and "C" for a conclusion. Insert these letters in the appropriate positions. For example, the correct insertion of these letters in "__ therefore, __" is "P therefore C." Since "therefore" introduces a conclusion, it is a "con-
clusion indicator." The correct insertion of these letter in "Since __, __" is "Since P, Q." As "since" introduces a premise, it is a "premise indicator." If there is an expression that we typically do not use a premise or a conclusion indicator, then do not insert any letter. Notice that some insertions would require some grammatical changes.

1) __, consequently, __.
2) __ entails that __.
3) As shown by the fact that __, __.
4) __. This is shown by __.
5) As __, __.
6) __ shows that __.
7) __. From this we can deduce that __.
8) __. However, __.
9) __. Accordingly, __.
10) __. I conclude that __.

There are over one hundred such expressions. This kind of exercise helps students to see the many ways in which words can show the argumentative use of statements. Having students use them will help them to communicate more effectively their train of thought, and to follow the reasoning of others who do use these expressions correctly.

I very strongly suggest that you start using the labels "premise indicator" and "conclusion indicator" rather than "transition words" or "conjunctions" or whatever other label, for the latter do not clearly describe the roles of these expressions play in our reasoning. For example, "since" and "so" are grammatically labeled as conjunctions, but they have radically different functions: the first one introduces premises, while the second one introduces conclusions. If we are going to teach reasoning skills effectively, we must use the labels that clearly identify the functions of words in reasoning.

In this paper I have proposed a number of exercises to help students to explore and discover precision, consistency, logical implication, inference, and argument; acquire some basic vocabulary to describe reasoning; collaborate with other students in order to become more aware of their own reasoning and to improve it. I have described the interrelations among these standards and elements of reasoning, explained why it is important for students to understand those interrelations, and attempted to justify the order in which I introduced these standards and elements. There is much more to cover if we want to seriously improve our students' reasoning, and some of the exercises described here can serve as models to construct other exercises. But they are to be modified in whatever way would maximize your students' learning. Let us not forget that it is through discussion and writing that students will learn to synthesize and master thinking skills and concepts. If we give students only exercises and problems, like the ones presented in this paper, they will tend to learn the skills and concepts in a fragmented way, and fail to apply them so as to improve the quality of their lives.
Socrates in Search of Man

Socrates is speaking to you. You interest him. He is looking for the man, not the savant: l'homme moyen, the typical. He stops the first person he meets and immediately a long, engaged conversation ensues.

But what does he teach you? Nothing. Rather, he interrogates you. Let's take, he says, someone who desires the good. But how could anyone not desire the good? Everyone has a will for the good. No one is able to desire evil, no one can want to be unhappy. So you have only to question yourself in order to know what is good.

But you don't reason well when you're trying to explain what you want. There are so many contradictions in what you are saying—and Socrates won't stop harrassing you. One would think that he takes pleasure in teasing and embarrassing you. He claims to know nothing, that he is submitting himself to your instruction in order to cure his own ignorance—but it's all in order to make you understand that you don't really know what you want.

You want the good without knowing what it is. You think poorly, so you act poorly. If you want to learn how to think well, you must learn how to philosophize. To philosophize is to reflect together with others about what each of us wants and what each of us is ignorant of. There is a good which is common to all of us, and no one is able to find it. Each of us acquires it through our will, and we lose it through ignorance. In order to know what you want, you must know yourself. No one can tell you what you must do, no one can think for you, no one can really question you but yourself. The philosopher can only help you do it—to give birth to your own thought. It is up to him to remind others of what they want.

Socrates loves the young, and it is among them that he finds his disciples. He brings knowledge and wisdom to their unalloyed will for the good. Young wills must bring themselves to the wise—later they will seek wisdom on their own. One must want to learn wisdom in order to know how to separate oneself from others and to truly live in and with oneself. The sage is the solitary one, yet Socrates is never alone. His thought calls out, it needs the other, it can't do without the other. Socrates is a teacher, and for a teacher, to think is to contribute to the formation of other human beings. When philosophy ceases being human, it become nothing more than an intellectual game of who can discuss or dispute best, who can produce the most brilliant paradoxes. Such a philosophy, rather than aiding the will, serves merely to falsify it.

This was the case with the sophists. Deprived of human contact, their thought found itself abandoned, and strayed wide of the mark. The sophist is a virtuoso of intelligence, a reasoner who de-reasons. Socrates prefers l'homme moyen—the one who, having retained his will for the good, has but to see clearly into himself in order to know the truth. There are also those philosophers who would interpret the universe for us. These are the metaphysicians. Socrates in no way condemns them, but he would rather bring philosophy from heaven to earth, where it mingles with daily life, and where each one finds in herself answers to the questions posed to herself. Everyone wants to be happy, everyone asks how to go about it. Isn't it up to the philosophers to help them construct their lives, through revealing to them what is truly of value?

Socrates wanted to teach his fellow citizens the art of living well, but he fell foul of the Athenians. There were among them a number of half-decent politicians who, for reasons of state, condemned him to drink hemlock. One might well wonder if the man on the street considered this verdict a crime and a stupidity. Why then did the politicians prevail? It is this question that Socrates' great disciple Plato never ceases from asking. Socrates' tragic end proves that it is not enough to call on those of good will. If the good which each of us seeks is to become a reality, we must create a society in which justice reigns. So Plato constructed an ideal city; but those who had rejected Socrates' teaching were not convinced. For these political "realists," both philosophers were dreamers who knew nothing of life.

Aristotle, Plato's disciple, took another path. He sought the origins of human societies, and compared their various forms of organization—he made a science of politics. Thus Greek thought moved from moral inquiry to utopian thought to political science. We note the same evolution in modern times, but what remains for us is to unite the three—morality, utopia and science. Each of us must seek his own rightness, but if we go only that far, our wills, self-isolated as they are, remain ineffective. We must unite in order to establish a reign of justice, but the more we limit ourselves to imagining an ideal City, the more powerless we become. Science must show us the way. Then we might be able to envisage a society in which Socrates would be free to talk with everyone and anyone, without having to fear the anathema of the politicians.

—Bernard Groethuesen, 1937.
What Does Philosophy for Children Have to do with Emotional Intelligence?

Ann Gazzard

Philosophy for Children, having as one of its foundational underpinnings the Vygotskian notion of thinking as internalized dialogue, draws heavily on classroom dialogue as a way of both teaching thinking and of better understanding subject matter. Together with its contemporaries—cooperative learning, collaborative learning, inquiry training and group investigation, the classroom community of inquiry technique also benefits from the social and interpersonal interactions it promotes. Students learn better how to get along with others by being engaged week after week in dialogue with their classmates about things that are important to them. They learn tolerance for others' beliefs and opinions by being exposed to the rationale behind them. They learn respect for differences, knowing that other points of view may be equally well substantiated; and they learn the give and take, the to and fro of verbal interaction that is attentive and mutually respectful. Often the children themselves report a sense of a growing warmth or affiliation among classmates. They experience the emotional bonds that emerge from a shared commitment. In this case the commitment is to the process of inquiry, and it often manifests as a loyalty to the group and its work together with an increasing sense of care for the tenderness that comes from exposing intellectual intimacies and perspectives.

In this sense Philosophy for Children already has a lot to offer the development of emotional intelligence. What I want to address here, however, is a less obvious, yet perhaps more significant connection—more significant because of its potential overarching consequences for all that comes later. In particular I want to examine two incongruent—at face value anyway—ideas, namely, philosophy and emotional intelligence in the early childhood years.

The two halves of the brain and emotional intelligence

In order to do this, I will need first to introduce some perhaps unfamiliar terms and concepts that will be drawn upon throughout the argument. The first is the notion of left brain/right brain functioning and the second is the notion of emotional intelligence. The notion of the two hemispheres of the brain having different primary functions has gone in and out of vogue in the academic world. Regardless of its popularity at any given time, however, it is evident that the left hemisphere is responsible for the more traditional academic skills like verbal ability and logical/analytical reasoning, whereas the right hemisphere (once called the 'dumb' brain) takes care of musical, artistic/spatial and poetic type of abilities. If there is damage to the cortical layers in any part of the brain, other parts, even sides, can take over the lost function in time.

Emotional intelligence (EQ), unlike its counterpart IQ, which has an extensive practical and research history, has only more recently been introduced to us by Daniel Goleman. Whereas IQ has most generally referred to mathematical and verbal ability, EQ, according to Goleman, refers to a person's ability to get along with other people, to be aware of one's own feelings, and to be able to handle oneself in the face of any emotion. What makes EQ all the more interesting is its purported contribution not only to academic success, but also to having a "successful life." Indeed, the argument goes that, with respect to being successful, EQ makes an 80% contribution, whereas IQ contributes only 20%. Unlike what schools have traditionally geared themselves towards—namely, enhancing IQ scores and academic performance believing it to be the measure of future success—it seems from this more recent research that it is indeed more self-management and interpersonal...
skills that make the difference.

What is particularly interesting is that, even though we know this at a common sense level—even though we know that intellectual knowledge is limited if it cannot be communicated or applied or if the social contacts are not available for sharing it—there now seems to be considerable physiological evidence lending support to and charting out the neural basis of this phenomenon. Certainly educational theorists have already made use of psychological understanding by drawing increasingly upon collaborative and cooperative learning techniques to integrate social skills and interpersonal development with more academic learning. But the advent of a physiological framework seems not only to justify its application in schooling, but to render imperative the search for a means of prevention. The latter is what I mean to establish here. I hope to show the role philosophy can play in forestalling the development of those neural pathways that make the person a captive of negative emotional reactions and hence emotional illiteracy. Goleman suggests that these pathways, once formed, are correctable. He offers the caveat, however, that this can not be achieved without considerable effort. Prevention and remediation both require effort; this is well known. But insofar as much suffering could be avoided by the former, and insofar as greater gains in scholastic performance can be achieved when the emotions are more stable, prevention, if possible, seems the preferred path. Education, that is, seems a more enlightened path than therapy.

The physiology of emotional intelligence

What we need to do, then, is examine the structure and development of the neural pathways that account for the lack or possession of emotional intelligence, and see what the connections to philosophy might be that could more readily promote their formation. Goleman amasses an array of research findings in order to establish the following: first, there is the notion of "emotional hijack," the major saboteur of EQ. It occurs when emotions which are inappropriate in intensity or type to the situation overtake conscious choice. The "emotional outburst" is often responsible for social difficulties, whether in child or adult. According to Goleman, "The hallmark of such a hijack is that once the moment passes, those so possessed have the sense of not knowing what came over them." This condition, according to the literature, is neurally based, "originating in the amygdala, a center in the limbic system," that part of the brain often thought of as the emotional brain. If the amygdala is severed from the rest of the brain, the result is a striking inability to gauge the emotional significance of events. Emotional memory, passions, affection, the ability to compete and cooperate, tears of sorrow, are all attributed to the workings of the amygdala. Yet more recent neuroscientific research points to the interplay between the amygdala and the neocortex (the thinking brain) as being actually at the heart of emotional intelligence. It is in this interplay, moreover, that the connection with philosophy becomes significant. Before explain-
ing that connection, however, this interplay between the neocortex and amygdala needs to be described and explained in as simple terms as possible.

Secondly, there is the development of the central nervous system to be considered. In evolutionary terms, that development has proceeded in the following sequence—the brain stem, the limbic system and the neocortex. Not only does, in this case, the biological principle that ontogeny recapitulates phylogeny holds true but, in evolutionary terms, this phylogenetic development has taken millions of years. What this means for individual human development is that those areas of the brain regulating basic life functions, stereotypic movements and reactions, and instinctual behavior—the brain stem, sometimes called the primitive brain, old brain or cobra brain—develop first. The limbic system evolves out of this structure and wraps around it. It is the emotional center, and is also responsible for learning and memory related to survival and emotion. Then, out of the emotional center, the cortex and neocortex emerge, which are responsible for comprehending what is sensed, and all intellectual endeavors, including the capacity to think about our feelings. Simply put, instincts give rise to emotions, which give rise to thought.

It was once thought that the limbic system was entirely responsible for emotional behavior, but it is now known that this is not the case. Indeed, these more recent research findings indicate that intelligent emotional behavior requires the input of the left prefrontal lobe of the neocortex, that is, the area of the most abstract rational thought. Some might argue that this is obvious, that this was always understood; but what is new is that now there is physiological evidence for it. Emotionally intelligent behavior is now best described as that type of response that results from a neural interaction between the amygdala and the prefrontal neocortex, insofar as the amygdala's firing is tempered by firings from the left prefrontal neocortex. Psychologically speaking, this means that the emotion is tempered by the type of thought available to the left hemisphere—namely, rational, analytic, judicial type processes. In other words, an emotion is evaluated for its appropriateness and intensity in respect to the situation, and in so doing it is tempered at the level of behavior.

In the case of an "emotional hijack," these pathways from the left neocortex are not available, and the raw emotion bursts forth—whether it be fear, rage, jealousy, lust or greed, etc. In fact "the amygdala can take control over what we do even as the thinking brain, the neocortex, is still coming to a decision." It acts this way when it senses an inherent danger or threat. But what constitutes a threat, and why? Why is this neural tripwire more vulnerable in some children and adults than others? Citing LeDoux's work, Goleman provides a description of this tripwire:

A visual signal first goes from the retina to the thalamus, where it is translated into the language of the brain. Most of the message then goes to the visual cortex, where it is analyzed and assessed for meaning and appropriate response; if that response is emotional, a signal goes to the amygdala to activate the emotional centers. But a smaller portion of the original signal goes straight from the thalamus to the amygdala in a quicker transmission, allowing a faster (though less precise) response. Thus the amygdala can trigger an emotional response before the cortical centers have fully understood what is happening.

Until LeDoux's analysis, there was no knowledge of a pathway straight from the thalamus to the amygdala. It was believed that all emotional processing came after cortical processing—that is, thought before emotion or emotional response. But now we have at least an initial understanding of how the thinking brain can get swamped and arrested by the emotional brain. "The amygdala can have us spring into action while the slightly slower—but more fully informed—neocortex unfolds its more refined plan for reaction." It is now argued that, because there is a pathway straight to the amygdala that can bypass conscious rational processing, we have a physiological basis for explaining unconscious emotions and emotional memories that at times drive us to act in a particular way without ever quite realizing why. This contemporary neuroscientific analysis supports the more long-standing psychoanalytic principle that life-long emotional patterns are set during the first few years of life. Neuroscientific research suggests that these emotional patterns have neural counterparts that are "rough, wordless blueprints." They are established at times of intense emotion, ranging from beatings or neglect to intense love and nurturing. However, they are also established at a time when the words or experience to understand or articulate them are not available. Consequently, these patterns turn out to be no
less baffling and disturbing when they erupt as outbursts in later childhood or adult life as when they were established in early life. Once the blueprint is laid, a situation later in life may only have a thread of similarity to the original situation, but in some cases it is enough to trigger a full blown response in the amygdala. "Precognitive emotions," as they are called, are "reaction(s) based on neural bits and pieces of sensory information that have not been fully sorted out and integrated."³³

In summary, the prefrontal areas of the left brain normally govern our emotional reactions—that is, our emotions are tempered by thought. In the case of an emotional emergency, however, whether it be rationally justified or not, emotions speak for themselves. The amygdala is triggered, but the neocortical processes are not activated—at least not in time.

**The role of Philosophy for Children**

I want to return to two earlier questions, namely, why are some children more vulnerable to emotional hijackings than others, and what is the role of philosophy in enhancing the communication between the neocortex and the amygdala? It appears from Goleman's research that there are two reasons for differences in reactivity among children. On the one hand, some children are born that way. There are so-called "shy" children with over excitable amygdalas.

On the other hand, there are those children who do not necessarily inherit that condition but develop it due to unfortunate early childhood experiences. Undoubtedly there is also a panoply of possibilities which fall between nature and nurture, many of which may not be socially or personally destructive, but are of the kind that could nevertheless be well prevented, making for a happier, more capable child. The lack of pathways from the prefrontal cortex to the amygdala, whether a result of genetic endowment or later conditioning, is now thought to be correctable by later experience.³⁴

Since it is the formation of these new connections that seems to be at the heart of the prevention of this condition in the first place, it is this that I want to address—focusing particularly on prevention during the early childhood years, and the role that philosophy might play in that. Consequently, the experiences that have already left their mark even before the child enters preschool are confirmed by both our everyday experience and by psychological and physiological research. Yet each of these areas also shows us how in many cases the marks of these experiences can be moderated. Notwithstanding the immeasurable importance of parental education and support even before formal education begins, my attempt here is to show what might be done to reverse undesirable tendencies, and to create and strengthen new possibilities for future functioning. Neurally speaking, there is now sufficient evidence to suggest this can be done. Hardwiring changes can be made.

The success of such an approach rests upon finding ways to develop stronger and multiple neural connections between the neocortex and the amygdala, particularly at those times of emotional difficulty. That is to say, when the child is experiencing a difficult emotion, we have to find a way to help her or him develop thoughts and behavior to strengthen the messages from the left hemisphere to the emotional center. We need to create experiences that activate the children's conscious, left brain thinking process. The excitement of new ideas and concepts must be there so the child is stimulated enough to make new neuronal connections—to experience the "ah-ha" that comes from simultaneously seeing things in a different way and understanding them that way—the humor that makes the originally absurd all the more plausible, for example—and the daring to think of saying or doing things differently. Children need to experience the freedom and safety to say what's on their minds, so the limitations, consequences and implications of what they think and feel can be seen. What's more, all of this stimulated left brain activity needs to be connected to, relevant to, or in some way directed towards the emotional experience. That is to say, we're not talking about the development of critical and creative thinking outside of the context of the difficult emotion it's happening in.

Philosophy has a long-standing reputation for stimulating the brain in the ways described here, but it is typically reserved for college or adult populations. Philosophy for Children has a glowing and ever-increasing reputation for doing just these very things with children starting as early as the first grade.

This type of bimodal cognitive environment is not commonly experienced between child and caretaker, nor, sadly to say, between child and teacher. As I am primarily concerned in this paper with the development of emotional intelligence, let us consider first the child-caretaker aspect, whether it be in the role of parent or early childhood educator, and inquire as to how this might be accomplished.

The moments in question are those crucial ones in the interaction between child and adult, when the chance for the development of communication between the amygdala and neocortex is present. What we are concerned with is the onset of negative emotions, and the development of left brain messages to deactivate the messages from the amygdala—which has, for whatever reason, already been flung into overdrive. Whether the emotional pattern is a product of inheritance or conditioning, our job is to deactivate it. Parenthetically, it is interesting to note that whether or not the child is in need of this type of support at the time, their immunity to such emotional hijackings will be strengthened as a result of participating in bimodal interaction.

Let us consider anger as an example. Typically, parents in their more relaxed moments admit to feeling badly that they don't always stay reasonable. They
often regrettably report that, out of their own frustration and anger, they lash back at the child who is him/herself angry and frustrated. Parents report not wanting to do this, but also not knowing what else to do in the moment. This it seems is the crux of the matter. The essence of emotional intelligence, or at least the development of some pathways from the neocortex to the amygdala that might enhance it, hangs in this moment. Quite obviously, a parental emotional reaction of the type just described provides very little, if any, opportunity for the development or strengthening of these neural pathways. What is needed is a more cognitive-rich response, cast in an emotionally neutral or positive context rather than a context that is already saturated with its own negativity. I want to propose that there are two important aspects of the adult’s response to the child that need to be in place in order to promote emotional intelligence—a) the cognitive-rich aspect of the response, and b) its emotional neutrality.

The cognitive-rich response: Enter philosophy.

There is little doubt that much of what parents say to children at moments of emotional tension is of little developmental use. The child is often experiencing bodily, emotional and cognitive feelings either unknown, unfamiliar, or frightening in their uncon- trollability. The child’s state is not unlike having the first experience of a bad drug, intoxication, or illness. It is a feeling of unknowingness—of not knowing what to expect, when it will end, or if it will end at all, for the child has no experience to fall back upon in order to make a prediction. Adults, who are generally familiar with the type of feelings the child is experiencing, may give recommendations, advice, orders or reprimands, all of which are contingent upon their years of experience with such emotions. How unfair this seems! From the child’s perspective, this must seem an awful punishment, or an impossible request which is added to what is already happening to them. For example, telling a child to stop crying when she hardly knows how it started and does not understand her experience at the moment is—apart from being potentially hostile to the child—of little positive use or meaning. Rather, what children need at this moment is for someone to be engaged with them in their experience—someone as interested and involved in their experience as they are, interested in puzzling through the feelings with them, in considering where they may have come from, in wondering where they may be going, in seeing if the feelings have changed, in looking at the thoughts connected to the feelings, etc. This is not to say that the adult should play the therapist or counselor, but rather a curious, interested and caring companion, a support—and therefore someone who might be able to assist the child in understanding her experience. The adult may be able gracefully to make light of the experience with the child—to make a game out of it as it were—perhaps to draw the experience, or to act out the feeling, or to find music that’s like the feeling, or the color it’s like, etc. These are all ways to help the children understand their emotional experiences creatively. In other words, the adult needs to become a team player with the child, to help him/her more fully understand the depth and meaning, and the consequences and foundation of this form of experience.

It is at this point that we find a significant connection between philosophy—or at least philosophy in the form of Philosophy for Children—and emotional intelligence. Philosophizing with children about their experience in ways that are both informative and
playful is needed to build bridges from the neocortex to the amygdala. Question-answer dialogue is not what is meant here—rather, an inquiry with the child, in which there is a sharing of experiences and perspectives, so that each interlocutor, young or old, is affected by, learns from, and finds significant meaning through the other. Such a joint adventure should allow the children to feel comforted by the presence of adults, as opposed to seeing them as persons who are outside of their experience and commanding them to get outside of their experience also.

This notion of conjoint experience is not unlike what the existential psychiatrist R.D. Laing recommended for working with people in schizophrenic states. Laing suggested that the helper should take the hand of the person experiencing the disturbance and walk through it with them, as a companion. In this case, help for the situation comes more from being there than from trying to intervene or change the other. Rousseau offers a similar argument in his *Emile.* He claims that the parent's or teacher's role with the child should not be to administer rewards and punishments, but rather that, if these things are to occur, they should come as the natural consequences of the child's action on the environment. He argues that the adult's role should be to remove as much as possible those elements of the situation that are potentially dangerous, then let the child do as he or she will, allowing the consequences of their own actions to serve as reward or punishment. In so doing, the child eventually comes to the parent as a friend and ally—as one who the child sees avoiding and not being subjected to as many consequences as he or she is, and who is obviously not suffering to the same extent. The adult then becomes someone to whom the child can come for advice as a more advanced, informed traveler on a similar road. The child understands or acknowledges the adult as one who can help bring meaning to his or her experience, a companion in search of meaning and understanding—as opposed to one who attempts more to control and regulate that experience.

The emotionally neutral framework

The second necessary aspect of the adult's response to "emotional hijack" is that it be from an emotionally neutral, or at least negatively disengaged state. Apart from not knowing how to respond cognitively, parents often feeling incapable of responding in any but an angry way, because they feel caught in the grip of their own emotions. Here the practice of philosophy is a potentially useful tool for helping parents disengage sufficiently from their own emotional state to be able to be present with the child. Unless this can be achieved, the net effect is that two people rather than one are caught in the whirlpool of their own emotions—whereas if the adult can disengage, there is just one set of problematic emotions to be cared for.

The burden of responsibility for gaining control is the adult's. Its not that the adult should suppress or deny his or her feelings, but rather find sufficient cognitive distance from them. On the one hand, this will enable them to be clearer about what their feelings actually are, and on the other, it will create the psychic space which makes it possible to engage in someone else's process. By engaging in philosophical inquiry with the child of the type discussed earlier,
the caretaker slowly disengages from his or her negative emotions, and hence is more available both emotionally and intellectually. Philosophical inquiry is unique in its capacity to engage the mind purposefully and creatively with a problem, yet at the same time to enable the inquirer to feel less controlled by it. As adults allow themselves to focus on understanding the child’s experience in ways that are more philosophical, not only will children be more content, but adults will stand a better chance of behaving in freedom from the dictates of their own emotions. An example offered recently by a student in class illustrates this in a simple way.17 The student is herself a kindergarten teacher. She recounted how she calmed a young boy who was crying when his mother dropped him off at school and left. She said she put him on her knee and said "You know that happens to me too, I feel sad and get tears in my eyes when I miss someone, but you know what I do—I think about what it will be like when I see them again."

This small interaction illustrates, on the one hand, how the adult was there with the child in his feeling, letting him know that she too can feel what he does. On the other hand, she is also offering him some strategies for walking through the feeling, for getting to the other side of it as it were. The child feels acknowledged, and is made aware that his feeling is perfectly appropriate—there is nothing to hide or be ashamed of. Yet at the same time, he is given some "left brain" strategies with which to work with it. In this case the adult caught the emotion at its inception, and provided as it was happening the cognitive strategies to move through it. That is, the adult is teaching the child to identify those strategies that can serve as stepping stones through life’s emotional spaces.

Philosophy and art can enhance this learning process. For example in the instance above, the teacher’s response could be further directed towards developing those strategies that help build pathways between the neocortex and the amygdala. She might make suggestions like, "Lets make a list of all the things you might do when you see her," "Lets draw a picture of what you might do together," "Lets write a poem telling her what it’s like to see her after missing her," or "what do you think she does when she misses you?" All such ways of reframing the feeling are potential avenues for making these important neural connections. Knowing what one is feeling and being able to express and communicate it clearly are probably the central features of emotional intelligence. Without the psychological distance that philosophy can provide, and without the enriched understanding it lends to any inquiry, it is hard to imagine how one could do either.

ENDNOTES
1. A good example of this can be seen in Socrates for Six Year

3. "IQ" is being used here in the way that it has most traditionally been understood. It is not being used here in the sense of Gardner’s Multiple Intelligences, which includes both IQ and EQ. See Howard Gardner, Frames of Mind (New York: Basic Books, 1983). Goleman defines EQ as "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one’s moods and keep distress from swamping the ability to think; to empathize and to hope" (p.34).
4. Ibid., pp. 54, 195.
5. Ibid., pp. 196,199.
8. Ibid., p.15.
10. Goleman, 1997, p.15
11. Ibid., p.19.
12. Ibid., p.18
13. Ibid., p.24
14. Ibid., pp. 22, 199, 207-208
The following discussion took place in November 1999, in a first-grade classroom at Edgemont School in Montclair, NJ. It was led by David Kennedy, a professor at Montclair State University, and Matthew Schertz, a doctoral student at IAPC, and transcribed by Andrew Kenny and Henry Minarick, who are Masters of Education students at Montclair State University.

David: Do you remember when we read last week? We made some really interesting questions. Remember them?
Laura: I have another question.
David: What is it Laura?
Laura: It isn't about the book [The Doll Hospital].
David: Well, let's go with the three we have already—they're very good! Why did they ask where the doll came from? Where did Jess come from before she was born? Could Jess find out where Roller came from? Laura, you start. Listen carefully to what Laura says so you can respond. Try to say something about what has already been said.

Julia: How come Jess believed that Roller was a real person?
David: That's another good question, but what we're asking now is where it came from. Where did Jess come from before she was born? Could Jess find out where Roller came from? Laura, you start. Listen carefully to what Laura says so you can respond. Try to say something about what has already been said.

David: She wasn’t made before she was with the doll maker. She was nothing.
Laura: How come Jess believed that Roller was a real person?
David: That’s another good question, but what we’re asking now is where it came from.
Chris: Where was the doll before it was in the doll maker’s mind?
David: Excellent question Chris. Hmm, kind of mysterious!
Julia: I bet Roller came from under the girl’s mom’s bed.
David: Nothing?
Julia: Yeah, she was nothing.
David: Does everyone agree?
Quinn: I bet Roller came from under the girl’s mom’s bed.
David: Why?
Quinn: Maybe it got lost under the bed because a lot of dolls get lost.
David: But what do you have to say to what Julia said? She went back to when the doll wasn’t even made, when it was just a thought.
Sam: I agree with Julia because the doll wasn’t made until the person had the idea.
David: What about before he had the idea? Where did the idea come from?
Sam: The person who made it!
David: Casey, do you want to say something?

Casey: I disagree with Julia and Sam because I know what I think. I think before it was made it was in another person’s brain who gave the idea to the doll maker.
Darren: Yeah, it was nothing before it was in the other guy’s mind.
David: What kind of person would that be? His wife? His daughter?
Casey: No.
David: Who then?
Casey: Just someone else.
Darren: Maybe she was like a little girl who had it before. Maybe when she got big she had it when she was little.
David: That sounds a little like what Quinn said. But where did the idea come from?
Casey: Before that it was really just nothing. Well I mean not exactly nothing, but he was thinking of a way to make it.
David: Let me ask you a question which is related. Where does a butterfly come from?
Dakota: From a caterpillar.
David: Do we all agree with this? How do you know that?
Quinn: Because a caterpillar is... I forgot.
Ryan: Because a caterpillar goes into a cocoon.
David: How do you know that Ryan?
Ryan: We studied it last year with real butterflies.
David: So you know it from actually seeing it happen. Where does the caterpillar come from?
Sydney: It comes from... I don’t know.
David: Well, that’s an honest answer.
Acia: It comes from a mother and an egg. The mother will put it on a leaf.
David: Where does the mother come from?
Alexandra: From her mother!
Sam: The mother comes from the grandmother of the mother’s son.
David: I don’t get that. Do you mean the mother’s mother?
Matthew: Where does the first mother come from?
Alexandra: God made it. When God created the world.
David: So, using that logic we can say that God made everything?
Daniel: I agree with Alexandra.
Matthew: Why?
Daniel: I forget...
Alexandra: When God made the world.
David: So what or who made God?
Alexandra: Maybe God's mother.
David: Yeah, we have to keep going back. This is tricky stuff.
Dakota: God doesn't have a mother. He was first.
Chloe: Nobody can say if God is real.
Laura: I heard about God's mom, and she has a name. I agree with Alexandra.
Sydney: God was first, He didn't have a mother.
David: So God was the beginning?
Julia: I agree with Sydney because I'm not really sure. You cannot know for sure, so you just believe.
David: Why can't you know for sure?
Julia: I don't know.
Daniel: I disagree with Sydney, because how could He be made without a mother?
Matthew: Are you saying that God needed a mother?
Acia: I disagree with Sydney. God is made of clouds and air.
David: So where did the clouds and the air come from?
Acia: I don't know.
David: But that's a great thought! So you are saying that God is made up from the earth?
Chloe: The clouds came from water.
Laura: I agree with Sydney because God is probably... well actually I don't agree with Sydney because God probably did have a mother because... Well actually I have something to say about Jesus.
David: How does it fit?
Laura: Jesus had a mother. The real father of Jesus is God. God asked Joseph if he could help Mary.
David: But we still have this problem about where God came from.
Quinn: Maybe God was still inside and the mom died and when she went up to heaven then maybe God came out.
David: Quinn is offering us a hypothesis. A "maybe" or a "what if?" which might help us to solve our problem. Does it help our problem?
Casey: I disagree with everyone. Before there was earth I think first came a planet, then came the earth and the earth made God.
David: So God came from the earth?
Matthew: Where do the other planets come from?
Casey: Everything in space wasn't there. Just plain dark space. And then came all the stuff in space. Then God made the first two people from rocks and stones.
David: Chloe, do you agree?
Chloe: I don't agree with Acia that God is made of clouds and stuff, because then he must have come from water because clouds are made up of water. So if you're watering your plants you must be using God!
David: If you're watering your plants then you are using God—that's an interesting point. Does everyone understand?
Acia: I said air and clouds.
David: But do you see how Chloe transformed your point into her own?
Acia: Now I do.
David: I'm looking for someone who hasn't shared yet.
Sam: God was made out of clouds before he made the world and us.
David: So you agree with Casey—that God didn't come first.
Casey: What I said was first came space. Plain black space. Then the planets. After the planets... God. It was all empty when I said "plain black space."
Matthew: This reminds me of what Julie said in the beginning—that before the doll maker thought of the doll she was nothing. So everything we talked about comes back to this idea... the idea of nothing. Casey, can you think of something that came before plain black space?
Casey: I think it might have been just plain plain nothing nothing.
Laura: God is a real real real dad.
David: Well we're out of time, let's wrap up. I'll ask you one question to leave you with—maybe we can talk about it next week. Where did time come from? That's the question!
Hypatia: A Journal of Feminist Philosophy

Hypatia is the only journal for scholarly research at the intersection of philosophy and women's studies. It is a leader in reclaiming the work of women philosophers and its combination of scholarly excellence and feminist engagement has won the approval of readers and critics alike.

THE PHILOSOPHY OF SIMONE DE BEAUVIOR

Edited by Margaret Simons

*Preface* Margaret Simons

"The Blood of Others: A Novel Approach to the Ethics of Ambiguity" Eleanor Holmbeck

"Marriage, Autonomy, and the Feminine Protest" Debra Bergoffen

"Reciprocity and Friendship in Beauvoir's Thought" Julie Ward

"She Came To Stay and Being and Nothingness" Edward Fullbrook

"Sexually Situated: Beauvoir on Frigidity" Sue Cataldi

"Simone de Beauvoir's Notions of Appeal, Desire, and Ambiguity and their Relationship to Jean-Paul Sarte's Notion of Appeal and Desire" Eva Gothlin

"Beauvoir's Minoritarian Philosophy" Linell Seacomb

"Simone de Beauvoir's Phenomenology of Sexual Difference" Sara Heinamaki

"The Relevance of Beauvoir's Thinking Today" Karen Vintges

"Beauvoir, Ontology, and Women's Human Rights" Gail Linsenbard

"Simone de Beauvoir's Ethics of Autobiography" Ursula Tidd

and more

Vol. 14, No. 4 $16.95

Subscriptions:

Individual, one year $35.00

Individual, two years $63.00

Foreign surface post per year $12.50

Shipping and handling: Add $5.00 for one issue and $1.00 for each additional

Indiana University Press
601 North Morton Street
Bloomington, IN 47404
Phone: 1-800-842-6797
Fax: 1-812-855-8502
E-mail: journals@indiana.edu
URL: www.indiana.edu/~jupress/journals

THE INSTITUTE FOR THE ADVANCEMENT OF PHILOSOPHY FOR CHILDREN

announces the May session of the annual workshop/conference in Philosophy for Children will be held May 17-31, 2000 at St. Marguerite's Retreat House in Mendham, NJ.

Those in attendance will be Masters students in the Philosophy for Children Graduate Program at Montclair State University, together with a number of Visiting Scholars wishing to find out how the program works, and how it can be transferred to their states or countries.

The fee for the two weeks is $1750.00 which covers room, board (individual accommodations), cost of instruction and use of materials.

Please contact Joanne Matkowski at Matkowskij@mail.montclair.edu if you would like to receive a letter of invitation.
COEXISTENCE HUMAINE

MONTRÉAL
PALAIS DES CONGRÈS
DU 23 AU 27 JUILLET
2000

MONTRÉAL
CONGRESS CENTER
FROM JULY 23rd TO 27th
2000

HUMAN COEXISTENCE

Congress mondial sur la coexistence humaine dans un monde responsable et solidaire à l’aube du IIIe millénaire

World congress on human coexistence in a responsible and solidary world at the dawn of the IIIrd millennium

Organisé par les Groupes de Lausanne et de Montréal de l’Alliance pour un monde responsable et solidaire

Organized by the Lausanne and Montreal Groups of the Alliance for a responsible and solidary world

Thèmes :
Préservation des milieux de vie
Droits de la personne
Disparités économiques
Éducation et valeurs
Famille, société, citoyenneté
Transformation des valeurs

Themes :
Safeguarding the environment
Human rights
Economic disparities
Education and values
Family, society, citizenship
Transformation of values

Parmi les conférencier(ière)s invité(e)s / Among the guest speakers :
Larbi Bouguerra, Pierre Calame, Bernard Cassen, Pierre Dansereau, Françoise David, Gilles Dostaler, Joseph Ki-Zerbo, Alexis Klimov, Jerzy A. Wojciechowski ...

Comité organisateur / Organizing Committee :
Venant Cauchy, Hubert Chamberland, Corinne Gendron

Langues du congrès / Congress languages : français, English, espanol, deutsch

Droits d’inscription / Registration fees :
jusqu’à / until 30-04-2000 : 100 $ CAN ; après / after 30-04-2000 : 120 $ CAN
Accompagnant / Accompanying person : 30 $ CAN ; Étudiant / Student : 30 $ CAN

Adresse de correspondance pour communications et inscription :
Mailing address for contributed papers and registration :
Congrès mondial, Département de philosophie
Université de Montréal, C.P. 6128, succursale Centre-ville
Montréal, Qc, H3C 3J7

Tél. & fax : (450) 681-8114 E-mail : coexistence@videotron.ca WEB : pages.infinit.net/coexiste